

permanent changes to storage allocations have been requested and the status of the request.

*Disposal of Dredged Sediment.*—No funds recommended in this act may be used for open lake disposal of dredged sediment unless such disposal meets water and environmental standards agreed to by the administrator of a State's water permitting agency and is consistent with a State's Coastal Zone Management Plan. If this standard is not met, the Corps of Engineers will maintain its long-standing funding obligations for dredged material management.

*WRRDA Section 6002.*—The Committee supports the Corps of Engineers performing a review of its inventory, in accordance with WRRDA section 6002.

*WRRDA Section 4001.*—The Committee urges the Secretary to follow through on the direction provided by Congress in WRRDA section 4001 to find and implement the means necessary to financially support the Susquehanna, Delaware, and Potomac River Basin Commissions. Congress has made clear its intent that the 3 River Basin Commissions be supported and expects the Corps of Engineers to act appropriately.

*Donor Ports and Energy Transfer Ports.*—The Committee provides \$50,000,000 for eligible donor ports and energy transfer ports in accordance with WRRDA section 2106. The Committee directs the Corps of Engineers to issue implementation guidance for section 2106 within 30 days of enactment of this act. With respect to eligible donor ports, the Committee directs 50 percent of such funds be equally divided between the eligible donor ports; and the remaining 50 percent of such funds be divided between the eligible donor ports based on each eligible donor port's percentage of the total Harbor Maintenance Tax revenues generated at such ports, in accordance with WRRDA section 2101. Funds recommended for section 2106 shall be used at the discretion of each eligible donor port and energy transfer port in accordance with section 2106.

*Monitoring Requirement.*—The Committee directs the Corps of Engineers to monitor the withdrawals for its existing water contracts in the Alabama-Coosa-Tallapoosa [ACT] river basin. Upon determination of an exceedance of the contracted amounts, the Corps of Engineers shall make notifications as required in the contract and notify the Committee within 30 days of such determination.

*Additional Funding for Ongoing Work.*—The fiscal year 2016 budget request does not fund operations, maintenance, and rehabilitation of our Nation's aging infrastructure sufficiently to ensure continued competitiveness in a global marketplace. Federal navigation channels maintained at only a fraction of authorized dimensions, and navigation locks and hydropower facilities, well beyond their design life, result in economic inefficiencies. The Committee believes that investing in operations, maintenance, and rehabilitation of infrastructure today will save taxpayers money in the future.

The Committee recommendation includes additional funds to continue ongoing projects and activities, including periodic dredging of ports and harbors.

The Committee directs that priority in allocating these funds be given to completing ongoing work to maintain authorized depths

and widths of harbors and shipping channels, including where contaminated sediments are present, and for addressing critical maintenance backlog.

Particular emphasis should be placed on projects where there is a Coast Guard or other water safety or police force presence; that will enhance national, regional, or local economic development; or that will promote job growth or international competitiveness.

The Committee is concerned that the administration's criteria for navigation maintenance does not allow small, remote, or subsistence harbors and waterways to properly compete for scarce navigation maintenance funds. The Committee urges the Corps of Engineers to revise the criteria used for determining which navigation maintenance projects are funded in order to develop a reasonable and equitable allocation under this account. The criteria should include the economic impact that these projects provide to local and regional economies, in particular, those with national defense or public health and safety importance.

REGULATORY PROGRAM

Appropriations, 2015 .....	\$200,000,000
Budget estimate, 2016 .....	205,000,000
House allowance .....	199,576,000
Committee recommendation .....	200,000,000

The Committee recommends \$200,000,000 for the Regulatory Program of the Corps of Engineers, a decrease of \$5,000,000 from the budget request. The Committee urges the Corps of Engineers to continue to coordinate with the Department of the Interior to analyze the environmental impacts of the proposed marina development project in Coral Bay, St. John and provide input into the permitting process.

FORMERLY UTILIZED SITES REMEDIAL ACTION PROGRAM

Appropriations, 2015 .....	\$101,500,000
Budget estimate, 2016 .....	104,000,000
House allowance .....	104,000,000
Committee recommendation .....	101,500,000

The Committee recommends \$101,500,000 for the Formerly Utilized Sites Remedial Action Program, a decrease of \$2,500,000 from the budget request.

FLOOD CONTROL AND COASTAL EMERGENCIES

Appropriations, 2015 .....	\$28,000,000
Budget estimate, 2016 .....	34,000,000
House allowance .....	34,000,000
Committee recommendation .....	28,000,000

The Committee recommends \$28,000,000 for Flood Control and Coastal Emergencies, a decrease of \$6,000,000 from the budget request.

EXPENSES

Appropriations, 2015 .....	\$178,000,000
Budget estimate, 2016 .....	180,000,000
House allowance .....	179,000,000
Committee recommendation .....	178,000,000

The Committee recommends \$178,000,000 for Expenses, a decrease of \$2,000,000 from the budget request. This appropriation finances the expenses for the Office of the Chief of Engineers, the Division Offices, and certain research and statistical functions of the Corps of Engineers. No funding is recommended for creation of an Office of Congressional Affairs.

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

Appropriations, 2015 .....	\$3,000,000
Budget estimate, 2016 .....	5,000,000
House allowance .....	4,750,000
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 from the budget request.

GENERAL PROVISIONS—CORPS OF ENGINEERS—CIVIL

Section 101. The bill includes language concerning reprogramming guidelines.

Section 102. The bill includes language rescinding prior year unobligated funding.

Section 103. The bill includes language concerning funding transfers requested by the administration related to fish hatcheries.

Section 104. The bill includes language concerning the definitions of “fill material” or “discharge of fill material” for purposes of the Federal Water Pollution Control Act.

Section 105. The bill contains language deauthorizing a project.

Section 106. The bill includes language regarding the Lowell Creek Tunnel project.

Section 107. The bill includes language regarding water allocations.

TITLE II

DEPARTMENT OF THE INTERIOR

CENTRAL UTAH PROJECT COMPLETION ACCOUNT

Appropriations, 2015 .....	\$9,874,000
Budget estimate, 2016 .....	7,300,000
House allowance .....	9,874,000
Committee recommendation .....	9,874,000

The Committee recommends \$9,874,000 for the Central Utah Project Completion account which includes \$6,024,000 for Central Utah Project construction, \$1,000,000 for transfer to the Utah Reclamation Mitigation and Conservation Account for use by the Utah Reclamation Mitigation and Conservation Commission, \$1,350,000 for necessary expenses of the Secretary of the Interior, and up to \$1,500,000 for the Commission’s administrative expenses. This allows Reclamation 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.

BUREAU OF RECLAMATION

OVERVIEW OF RECOMMENDATION

The Committee recommends \$1,133,159,000 for the Bureau of Reclamation [Reclamation], an increase of \$34,491,000 from the budget request. The Committee recommendation sets priorities by supporting our Nation’s infrastructure.

INTRODUCTION

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

PROGRAM COORDINATION AND EXECUTION

The Committee expects Reclamation to execute its program in accordance with congressional direction included in this report and the accompanying act. This includes moving individual projects for-

ward in accordance with the funds annually appropriated. However, the Committee realizes that many factors outside Reclamation's control may dictate the progress of any given project or study. The Committee directs Reclamation to notify the Committee of any major deviations as soon as practicable, including a detailed justification and updates of cost, schedule, or scope for the project or study. A major deviation is defined as any reprogramming action that requires Committee notification as identified in the Energy and Water Development and Related Agencies Appropriations Act, 2015, or, a schedule change that causes completions, as identified in the fiscal year 2015 or fiscal year 2016 budget requests, to be delayed beyond the fiscal year stated.

The Committee has divided underfinancing between the Resources Management subaccount and the Facilities Operation and Maintenance subaccount. Upon applying the underfinanced amounts, normal reprogramming procedures should be undertaken to account for schedule slippages, accelerations, or other unforeseen conditions.

#### FISCAL YEAR 2016 WORK PLAN

The Committee has recommended funding above the budget request for Water and Related Resources. Reclamation is directed to submit a work plan, not later than 45 days after the date of enactment of this act, to the Committee proposing its allocation of these additional funds. Reclamation is directed not to obligate any funding above the budget request for studies or projects until the Committee has approved the work plan for fiscal year 2016. The work plan shall be consistent with the following general guidance.

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

#### REPROGRAMMING

The Committee is retaining the reprogramming legislation provided in the Energy and Water Development and Related Agencies Appropriations Act, 2015.

#### DROUGHT

The Committee is particularly concerned about the continued drought in the West. The U.S. Drought Monitor for May 12, 2015, shows that all Reclamation States are currently suffering from drought conditions. Ten of the Reclamation States are suffering from severe to exceptional drought over large portions of the individual States. Nearly all of California, one-half of Nevada, one-half

of Oregon, and some areas of the southern Great Plains are suffering from extreme to exceptional drought.

The Committee recognizes that drought is a difficult condition to address while it is occurring. However, there are many things that can be done to stretch available water supplies. Reclamation and the Department of the Interior are encouraged to use all of the flexibility and tools at their disposal to mitigate the impacts of this drought. The Committee is pleased to see that Reclamation has increased the funding for WaterSmart grants that increase efficiencies in current water uses. The Committee also appreciates Reclamation including a line in the budget request under WaterSmart to provide Drought Response and Comprehensive Drought Plans.

However, these efforts are insufficient to address the current scope of this drought and do nothing to address future droughts. The Committee believes that the only answer to these chronic droughts is a combination of additional storage, improved conveyance, and increased efficiencies in the uses of water both for agriculture and potable purposes. As the West has consistently been the fastest growing part of the country, it is incumbent on Reclamation to lead the way in increasing the water that is available from year to year and to incentivize more efficient use of the water that is available.

CONGRESSIONALLY DIRECTED SPENDING

The Committee did not accept or include Congressionally Directed Spending, as defined in section 5(a) of rule XLIV of the Standing Rules of the Senate. However, the Committee has recommended additional programmatic funds 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, 2015 .....	\$978,131,000
Budget estimate, 2016 .....	805,157,000
House allowance .....	950,640,000
Committee recommendation .....	988,131,000

The Committee recommends \$988,131,000 for Water and Related Resources, an increase of \$182,974,000 from the budget request. Within this amount, the Committee recommendation includes funding for Indian Water Rights Settlements and the San Joaquin River Restoration Fund as in prior years.

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 increased funding in the Water and Related Resources account on a number of line items to better allow Reclamation to address the immediate impacts of the drought. These funds may be used for environmental restoration and compliance activities; water conservation and delivery; increased operations and maintenance funding; drought emergency assistance planning; WaterSmart grants; and drought response and comprehensive drought assistance. The Committee notes that Reclamation included more funds in its fiscal year 2016 budget to address the continuing impacts from this drought. The Committee encourages Reclamation to maintain or increase these levels in the development of its fiscal year 2017 budget request.

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

Project title	Budget estimate		House allowance		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R	Resources management	Facilities OM&R
<b>ARIZONA</b>						
AK CHIN INDIAN WATER RIGHTS SETTLEMENT ACT PROJECT .....		15,341		15,341		15,341
COLORADO RIVER BASIN—CENTRAL ARIZONA PROJECT .....	6,620	458	6,620	458	6,620	458
COLORADO RIVER FRONT WORK AND LEVEE SYSTEM .....	2,303		2,303		2,303	
SALT RIVER PROJECT .....	649	250	649	250	649	250
SAN CARLOS APACHE TRIBE WATER SETTLEMENT ACT PROJECT .....	150		150		150	
SIERRA VISTA SUBWATERSHED FEASIBILITY STUDY .....	2		2		2	
YUMA AREA PROJECTS .....	1,324	24,640	1,324	24,640	1,324	24,640
<b>CALIFORNIA</b>						
CACHUMA PROJECT .....	647	674	647	674	647	674
CENTRAL VALLEY PROJECTS:						
AMERICAN RIVER DIVISION, FOLSOM DAM UNIT/MORMON ISLAND .....	1,577	9,138	1,577	9,138	1,577	9,138
AUBURN—FOLSOM SOUTH UNIT .....	35	2,184	35	2,184	35	2,184
DELTA DIVISION .....	5,718	5,511	5,718	5,511	5,718	5,511
EAST SIDE DIVISION .....	1,290	2,772	1,290	2,772	1,290	2,772
FRIANT DIVISION .....	2,192	3,401	2,192	3,401	2,192	3,401
SAN JOAQUIN RIVER RESTORATION SETTLEMENT .....					35,000	
MISCELLANEOUS PROJECT PROGRAMS .....	7,596	454	7,596	454	7,596	454
REPLACEMENTS, ADDITIONS, AND EXTRAORDINARY MAINT. PROGRAM .....		20,262		20,262		20,262
SACRAMENTO RIVER DIVISION .....	1,307	944	1,307	944	1,307	944
SAN FELIPE DIVISION .....	372	75	372	75	372	75
SAN JOAQUIN DIVISION .....	52		52		52	
SHASTA DIVISION .....	720	8,658	720	8,658	720	8,658
TRINITY RIVER DIVISION .....	12,309	5,177	12,309	5,177	12,309	5,177
WATER AND POWER OPERATIONS .....	4,389	10,393	4,389	10,393	4,389	10,393
WEST SAN JOAQUIN DIVISION, SAN LUIS UNIT .....	10,457	6,043	10,457	6,043	10,457	6,043
ORLAND PROJECT .....		930		930		930
SALTON SEA RESEARCH PROJECT .....	300		300		300	
SOLANO PROJECT .....	1,329	2,367	1,329	2,367	1,329	2,367
VENTURA RIVER PROJECT .....	313	33	313	33	313	33



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

Project title	Budget estimate		House allowance		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R	Resources management	Facilities OM&R
<b>COLORADO</b>						
ANIMAS-LA PLATA PROJECT .....	949	1,943	949	1,943	949	1,943
ARMEL UNIT, P-SMBP .....	5	377	5	377	5	377
COLLBRAN PROJECT .....	237	1,684	237	1,684	237	1,684
COLORADO-BIG THOMPSON PROJECT .....	707	13,230	707	13,230	707	13,230
FRUITGROWERS DAM PROJECT .....	103	136	103	136	103	136
FRYINGPAN-ARKANSAS PROJECT .....	295	11,729	295	11,729	295	11,729
FRYINGPAN-ARKANSAS PROJECT—ARKANSAS VALLEY CONDUIT .....	500		500		500	
GRAND VALLEY UNIT, CRBSCP, TITLE II .....	603	2,606	603	2,606	603	2,606
LEADVILLE/ARKANSAS RIVER RECOVERY PROJECT .....		1,958		1,958		1,958
MANCOS PROJECT .....	95	188	95	188	95	188
NARROWS UNIT, P-SMBP .....		36		36		36
PARADOX VALLEY UNIT, CRBSCP, TITLE II .....	1,293	2,679	1,293	2,679	1,293	2,679
PINE RIVER PROJECT .....	194	299	194	299	194	299
SAN LUIS VALLEY PROJECT, CLOSED BASIN .....	307	3,637	307	3,637	307	3,637
SAN LUIS VALLEY PROJECT, CONEJOS DIVISION .....	16	40	16	40	16	40
UNCOMPAGRE PROJECT .....	849	193	849	193	849	193
UPPER COLORADO RIVER OPERATIONS PROGRAM .....	270		270		270	
<b>IDAHO</b>						
BOISE AREA PROJECTS .....	2,880	2,029	2,880	2,029	2,880	2,029
COLUMBIA AND SNAKE RIVER SALMON RECOVERY PROJECT .....	18,000		18,000		18,000	
LEWISTON ORCHARDS PROJECTS .....	617	25	617	25	617	25
MINIDOKA AREA PROJECTS .....	2,435	2,183	2,435	2,183	2,435	2,183
PRESTON BENCH PROJECT .....	4	8	4	8	4	8
<b>KANSAS</b>						
ALMENA UNIT, P-SMBP .....	40	496	40	496	40	496
BOSTWICK UNIT, P-SMBP .....	372	882	372	882	372	882
CEDAR BLUFF UNIT, P-SMBP .....	35	547	35	547	35	547
GLEN ELDER UNIT, P-SMBP .....	66	1,158	66	1,158	66	1,158

May 19, 2015 (4:52 p.m.)

KANSAS RIVER UNIT, P-SMBP .....		100		100		100
KIRWIN UNIT, P-SMBP .....	36	408	36	408	36	408
WEBSTER UNIT, P-SMBP .....	12	1,629	12	1,629	12	1,629
WICHITA PROJECT—CHENEY DIVISION .....	88	426	88	426	88	426
MONTANA						
CANYON FERRY UNIT, P-SMBP .....	246	6,268	246	6,268	246	6,268
EAST BENCH UNIT, P-SMBP .....	202	661	202	661	202	661
FORT PECK RESERVATION / DRY PRAIRIE RURAL WATER SYSTEM .....	3,700		3,700		3,700	
HELENA VALLEY UNIT, P-SMBP .....	19	164	19	164	19	164
HUNGRY HORSE PROJECT .....		422		422		422
HUNTLEY PROJECT .....	12	45	12	45	12	45
LOWER MARIAS UNIT, P-SMBP .....	102	1,613	102	1,613	102	1,613
LOWER YELLOWSTONE PROJECT .....	364	16	364	16	364	16
MILK RIVER PROJECT .....	548	1,487	548	1,487	548	1,487
MISSOURI BASIN O&M, P-SMBP .....	1,028	269	1,028	269	1,028	269
ROCKY BOYS/NORTH CENTRAL MT RURAL WATER SYSTEM .....	4,625		4,625		4,625	
SUN RIVER PROJECT .....	153	253	153	253	153	253
YELLOWTAIL UNIT, P-SMBP .....	22	7,067	22	7,067	22	7,067
NEBRASKA						
AINSWORTH UNIT, P-SMBP .....	64	115	64	115	64	115
FRENCHMAN-CAMBRIDGE UNIT, P-SMBP .....	335	2,065	335	2,065	335	2,065
MIRAGE FLATS PROJECT .....	13	110	13	110	13	110
NORTH LOUP UNIT, P-SMBP .....	89	142	89	142	89	142
NEVADA						
LAHONTAN BASIN PROJECT .....	6,325	3,476	6,325	3,476	6,325	3,476
LAKE TAHOE REGIONAL DEVELOPMENT PROGRAM .....	115		115		115	
LAKE MEAD /LAS VEGAS WASH PROGRAM .....	700		700		700	
NEW MEXICO						
CARLSBAD PROJECT .....	2,812	1,327	2,812	1,327	2,812	1,327
EASTERN NEW MEXICO RURAL WATER SUPPLY .....	47		47		47	
MIDDLE RIO GRANDE PROJECT .....	12,878	11,113	12,878	11,113	12,878	11,113
RIO GRANDE PROJECT .....	1,374	6,032	1,374	6,032	1,374	6,032
RIO GRANDE PEUBLOS PROJECT .....	300		300		300	
TUCUMCARI PROJECT .....	17	9	17	9	17	9

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

Project title	Budget estimate		House allowance		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R	Resources management	Facilities OM&R
NORTH DAKOTA						
DICKINSON UNIT, P-SMBP .....	212	393	212	393	212	393
GARRISON DIVERSION UNIT, P-SMBP .....	16,406	6,743	16,406	6,743	16,406	6,743
HEART BUTTE UNIT, P-SMBP .....	82	1,196	82	1,196	82	1,196
OKLAHOMA						
ARBUCKLE PROJECT .....	67	207	67	207	67	207
MCGEE CREEK PROJECT .....	91	851	91	851	91	851
MOUNTAIN PARK PROJECT .....	25	587	25	587	25	587
NORMAN PROJECT .....	48	303	48	303	48	303
WASHITA BASIN PROJECT .....	160	1,083	160	1,083	160	1,083
W.C. AUSTIN PROJECT .....	59	629	59	629	59	629
OREGON						
CROOKED RIVER PROJECT .....	286	506	286	506	286	506
DESCHUTES PROJECT .....	372	211	372	211	372	211
EASTERN OREGON PROJECTS .....	511	220	511	220	511	220
KLAMATH PROJECT .....	13,379	4,621	13,379	4,621	13,379	4,621
ROGUE RIVER BASIN PROJECT, TALENT DIVISION .....	2,645	426	2,645	426	2,645	426
TUALATIN PROJECT .....	172	252	172	252	172	252
UMATILLA PROJECT .....	528	2,462	528	2,462	528	2,462
SOUTH DAKOTA						
ANGOSTURA UNIT, P-SMBP .....	249	750	249	750	249	750
BELLEFOURCHE UNIT, P-SMBP .....	270	1,006	270	1,006	270	1,006
KEYHOLE UNIT, P-SMBP .....	198	569	198	569	198	569
LEWIS AND CLARK RURAL WATER SYSTEM .....	2,774		2,774		2,774	
MID-DAKOTA RURAL WATER PROJECT .....		15		15		15
MINI WICONI PROJECT .....		12,000		12,000		12,000
CAHE UNIT, P-SMBP .....	36	58	36	58	36	58
RAPID VALLEY PROJECT .....		69		69		69

May 19, 2015 (4:52 p.m.)

U:\2016REP\10REP\10REP\1012

RAPID VALLEY UNIT, P-SMBP .....		195		195		195
SHADEHILL UNIT, P-SMBP .....	75	469	75	469	75	469
TEXAS						
BALMORHEA PROJECT .....	26	14	26	14	26	14
CANADIAN RIVER PROJECT .....	84	87	84	87	84	87
LOWER RIO GRANDE WATER RESOURCES CONSERVATION PROGRAM .....	50		50		50	
NUECES RIVER PROJECT .....	88	824	88	824	88	824
SAN ANGELO PROJECT .....	38	552	38	552	38	552
UTAH						
HYRUM PROJECT .....	178	177	178	177	178	177
MOON LAKE PROJECT .....	9	86	9	86	9	86
NEWTON PROJECT .....	50	75	50	75	50	75
OGDEN RIVER PROJECT .....	218	266	218	266	218	266
PROVO RIVER PROJECT .....	1,285	453	1,285	453	1,285	453
SANPETE PROJECT .....	60	10	60	10	60	10
SCOFIELD PROJECT .....	609	84	609	84	609	84
STRAWBERRY VALLEY PROJECT .....	830	100	830	100	830	100
WEBER BASIN PROJECT .....	972	1,150	972	1,150	972	1,150
WEBER RIVER PROJECT .....	60	88	60	88	60	88
WASHINGTON						
COLUMBIA BASIN PROJECT .....	4,200	10,610	4,200	10,610	4,200	10,610
WASHINGTON AREA PROJECTS .....	415	60	415	60	415	60
YAKIMA PROJECT .....	787	6,784	787	6,784	787	6,784
YAKIMA RIVER BASIN WATER ENHANCEMENT PROJECT .....	12,811		12,811		12,811	
WYOMING						
BOYSEN UNIT, P-SMBP .....	231	1,828	231	1,828	231	1,828
BUFFALO BILL DAM, DAM MODIFICATION, P-SMBP .....	32	2,669	32	2,669	32	2,669
KENDRICK PROJECT .....	107	4,547	107	4,547	107	4,547
NORTH PLATTE PROJECT .....	205	1,190	205	1,190	205	1,190
NORTH PLATTE AREA, P-SMBP .....	111	5,012	111	5,012	111	5,012
OWL CREEK UNIT, P-SMBP .....	6	96	6	96	6	96
RIVERTON UNIT, P-SMBP .....	12	651	12	651	12	651
SHOSHONE PROJECT .....	72	729	72	729	72	729
SUBTOTAL, ITEMS UNDER STATES .....	190,940	286,948	190,940	286,948	225,940	286,948

BUREAU OF RECLAMATION—WATER AND RELATED RESOURCES—Continued  
 (In thousands of dollars)

Project title	Budget estimate		House allowance		Committee recommendation	
	Resources management	Facilities OM&R	Resources management	Facilities OM&R	Resources management	Facilities OM&R
REMAINING ITEMS						
ADDITIONAL FUNDING FOR ONGOING WORK RURAL WATER .....			28,750		29,705	
FISH PASSAGE AND FISH SCREENS .....					4,000	
WATER CONSERVATION AND DELIVERY .....			2,250		8,000	
ENVIRONMENTAL RESTORATION AND COMPLIANCE .....					1,000	
FACILITIES OPERATION, MAINTENANCE, AND REHABILITATION .....						
COLORADO RIVER BASIN SALINITY CONTROL PROJECT, TITLE I .....		14,170		14,170		14,170
COLORADO RIVER BASIN SALINITY CONTROL PROJECT, TITLE II .....	8,423		8,423		8,423	
COLORADO RIVER STORAGE PROJECT (CRSP), SECTION 5 .....	3,936	5,735	3,936	5,735	3,936	5,735
COLORADO RIVER STORAGE PROJECT (CRSP), SECTION 8 .....	2,250		2,250		2,250	
COLORADO RIVER WATER QUALITY IMPROVEMENT PROJECT .....	620		620		620	
DAM SAFETY PROGRAM DEPARTMENT OF THE INTERIOR DAM SAFETY PROGRAM .....		1,300		1,300		1,300
INITIATE SAFETY OF DAMS CORRECTIVE ACTION .....		66,500		66,500		66,500
SAFETY EVALUATION OF EXISTING DAMS .....		20,284		20,284		20,284
DROUGHT EMERGENCY ASSISTANCE PROGRAM .....					50,000	
EMERGENCY PLANNING & DISASTER RESPONSE PROGRAM .....		1,250		1,250		1,250
ENDANGERED SPECIES RECOVERY IMPLEMENTATION PROGRAM .....	24,351		24,351		24,351	
ENVIRONMENTAL PROGRAM ADMINISTRATION .....	1,720		1,720		1,720	
EXAMINATION OF EXISTING STRUCTURES .....		8,809		8,809		8,809
GENERAL PLANNING ACTIVITIES .....	2,000		2,000		2,000	
INDIAN WATER RIGHTS SETTLEMENTS AAMODT LITIGATION SETTLEMENT ACT .....			6,000		3,000	
CROW TRIBE WATER RIGHTS SETTLEMENT ACT OF 2010 .....			12,772		2,000	
NAVAJO-GALLUP WATER SUPPLY PROJECT .....			89,663		81,000	
TAOS PUEBLO INDIAN WATER RIGHTS SETTLEMENT ACT .....			4,048		4,048	
LAND RESOURCES MANAGEMENT PROGRAM .....	9,188		9,188		9,188	
LOWER COLORADO RIVER OPERATIONS PROGRAM .....	28,345		28,345		28,345	
MISCELLANEOUS FLOOD CONTROL OPERATIONS .....		817		817		817
NATIVE AMERICAN AFFAIRS PROGRAM .....	10,925		10,925		10,925	
NEGOTIATION & ADMINISTRATION OF WATER MARKETING .....	1,728		1,728		1,728	
OPERATION & PROGRAM MANAGEMENT .....	962	1,547	962	1,547	962	1,547
POWER PROGRAM SERVICES .....	2,391	307	2,391	307	2,391	307
PUBLIC ACCESS AND SAFETY PROGRAM .....	596	206	596	206	596	206

RECLAMATION LAW ADMINISTRATION .....	2,323		2,323		2,323	
RECREATION & FISH & WILDLIFE PROGRAM ADMINISTRATION .....	2,202		2,202		2,202	
RESEARCH AND DEVELOPMENT:						
DESALINATION AND WATER PURIFICATION PROGRAM .....	2,305	1,150	2,305	1,150	2,305	1,150
SCIENCE AND TECHNOLOGY PROGRAM .....	16,565		16,565		16,565	
SITE SECURITY ACTIVITIES .....		26,220		26,220		26,220
UNITED STATES/MEXICO BORDER ISSUES—TECHNICAL SUPPORT .....	90		90		90	
WATERSMART PROGRAM WATERSMART GRANTS .....	23,365		20,000		23,365	
WATER CONSERVATION FIELD SERVICES PROGRAM .....	4,239		4,239		4,239	
COOPERATIVE WATERSHED MANAGEMENT .....	250		250		250	
BASIN STUDIES .....	5,200		5,200		5,200	
DROUGHT RESPONSE & COMPREHENSIVE DROUGHT PLANS .....	2,500		2,500		2,500	
RESILIENT INFRASTRUCTURE INVESTMENTS .....		2,500		2,500		2,500
TITLE XVI WATER RECLAMATION & REUSE PROGRAM .....	20,000		23,365		20,000	
HOUSE FLOOR AMENDMENTS .....			2,000			
SUBTOTAL, REMAINING ITEMS .....	176,474	150,795	321,957	150,795	359,227	150,795
UNDERFINANCING .....					- 19,896	- 14,883
TOTAL .....	367,414	437,743	512,897	437,743	565,271	422,860
GRAND TOTAL, WATER AND RELATED RESOURCES .....		805,157		950,640		988,131

*CALFED Water Storage Feasibility Studies.*—The Committee notes that with the passage of California Proposition 1 in 2014, the California Water Commission is expected to begin allocating \$2,700,000,000 for the public benefits of water storage projects in early 2017. To ensure that the CALFED water supply projects are able to compete for the available State funding, the Committee directs Reclamation to take such steps as are necessary to ensure that each of the authorized CALFED water storage feasibility studies, and associated environmental impact statements, are completed as soon as practicable, and that, at a minimum, publicly available drafts of such studies and environmental reviews are completed no later than November 30, 2016.

*Safety of Dams Act of 1978, as amended.*—The Committee reiterates that Sisk Dam in California and its related facilities are owned by the United States. If determined that corrective actions are needed to reduce risk from seismic activity, then, under the Safety of Dams Act of 1978, as amended, 85 percent of all costs of those corrective actions should be a nonreimbursable cost of the United States. The other 15 percent of costs should be allocated to authorized State and Federal purposes of the project pursuant to 43 U.S.C. §508(c).

*Scoggins Dam, Tualatin Project, Oregon.*—As part of its Dam Safety Program, Reclamation is working on a Corrective Action Alternatives Study [CAS] for Scoggins Dam, the main feature of the Tualatin Project. Working with local stakeholders, Reclamation is evaluating how water supply objectives, such as increased storage, may be coordinated with CAS implementation. Phase 2 of the CAS, which is scheduled for completion in fiscal year 2016, should evaluate alternatives including replacement structures near the current dam to address Safety of Dams Act of 1978 modifications and additional storage benefits. These alternatives may reduce the obligation for both the Federal Government and stakeholders. As requested in fiscal year 2015, the Committee has included authorizing language to increase the cost ceiling for the Safety of Dams program and allow for concurrent safety modifications and additional storage capacity if determined by the Secretary of the Interior to be feasible and in the national interest.

*Water Hyacinth.*—The Committee notes that the aquatic invasive water hyacinth has had harmful effects on navigation, trade and commerce, the environment, wildlife, and water supplies in the western United States. The Committee directs Reclamation to coordinate with the United States Department of Agriculture, United States Fish and Wildlife Service, National Marine Fisheries Service, the Corps of Engineers, State and local authorities, water districts, water contractors, and not-for-profit organizations to establish best practices and cooperative arrangements that could be implemented annually to help mitigate and eliminate the spread of water hyacinth in waterways in Reclamation States.

*Non-native Predators.*—The Committee is encouraged by the steps that Reclamation has taken, in consultation with the United States Fish and Wildlife Service, the National Marine Fisheries Service, States, and other stakeholders, to evaluate and implement projects that could improve protection and recovery of endangered salmon and smelt. The Committee directs Reclamation to continue

consultations with Federal, State, and local agencies to develop additional activities that could aid in mitigating or removing non-native predators that prey on endangered salmon and smelt.

*Mni Wiconi Project, South Dakota.*—Within the funds provided for the operations and maintenance of the project, Reclamation may use funds for upgrading existing community systems that have always been intended to be part of the project. Additionally, within 60 days of enactment of this act, Reclamation shall provide a report on a plan to identify existing resources and complete the needed community system upgrades. This plan shall be coordinated with the United States Departments of Agriculture, Health and Human Services, Housing and Urban Development, Bureau of Indian Affairs, and Environmental Protection Agency.

*Rural Water Projects.*—When allocating resources for rural water projects, the Committee prohibits Reclamation from using the ability of a non-Federal sponsor to contribute funds in excess of the authorized non-Federal cost share as a criterion for prioritizing these funds.

The Committee also directs Reclamation to work with the United States Department of the Interior, the Senate Energy and Natural Resources Committee, and House Natural Resources Committee on legislative solutions to funding authorized Reclamation Rural Water Projects.

*WaterSMART Program.*—The Committee recommends that grants funded under the WaterSMART Program have a near-term impact on water and energy conservation and improved water management. Reclamation is urged to prioritize funding for projects in regions most stricken by drought.

*Additional Funding for Water and Related Resources Work.*—The Committee recommendation includes an additional \$182,974,000 above the budget request for Water and Related Resources studies, projects, and activities. Priority in allocating these funds should be given to advance and complete ongoing work; improve water supply reliability; improve water deliveries; enhance national, regional, or local economic development; promote job growth; advance Tribal and non-Tribal water settlement studies and activities; or address critical backlog maintenance and rehabilitation activities. Funding provided under the heading Additional Funding for Ongoing Work may be utilized for ongoing work, including pre-construction activities, on projects which provide new or existing water supplies through additional infrastructure; provided, however, that priority should be given in allocating funds to ongoing work on authorized projects for which environmental compliance has been completed. Funding provided under the heading Drought Emergency Assistance Program may be allocated to any authorized purposes, but shall be allocated to those activities that will have the most direct, most immediate, and largest impact on extending limited water supplies during current drought conditions. Reclamation is encouraged to use all available authorities to provide for additional water supplies through conservation, minor changes to the operations of existing projects, drilling emergency wells, or other means authorized under current law. This additional funding may be used alone or in combination with any other funding provided in a program, project, or activity.



*Buried Metallic Water Pipe.*—Last year, the Committee directed Reclamation to, among other things, conduct an objective, independently peer-reviewed analysis of pipeline reliability standards. Reclamation has yet to complete this study, which is of particular concern to the Committee because Reclamation’s use of Technical Memorandum 8140–CC–2004–1 (“Corrosion Considerations for Buried Metallic Water Pipe”) continues to hold different materials to different standards of reliability and increases project costs. The Committee directs that until this study is completed, Reclamation shall not use the memorandum as the sole basis to deny funding or approval of a project or to disqualify any material from use in highly corrosive soils. The pipeline reliability study must provide an objective, independently peer-reviewed analysis of pipeline reliability standards and be completed as quickly as possible. Reclamation is reminded that this study, including all data assembly and analysis must be conducted by an appropriate, independent third-party. Reclamation and its contractors involved in these efforts are expected to protect business-sensitive data that is collected during this process.

CENTRAL VALLEY PROJECT RESTORATION FUND

Appropriations, 2015 .....	\$56,995,000
Budget estimate, 2016 .....	49,528,000
House allowance .....	49,528,000
Committee recommendation .....	49,528,000

The Committee recommends \$49,528,000 for the Central Valley Project Restoration Fund, the same as the budget request. This appropriation is fully offset by a scorekeeping adjustment from revenues.

The Central Valley Project Restoration Fund was authorized in the Central Valley Project Improvement Act, title 34 of Public Law 102–575. This fund uses revenues from payments by project beneficiaries and donations for habitat restoration, improvement and acquisition, and other fish and wildlife restoration activities in the Central Valley project area of California. Payments from project beneficiaries include several required by the act (Friant Division surcharges, higher charges on water transferred to non-Central Valley Project users, and tiered water prices) and, to the extent required in appropriations acts, additional annual mitigation and restoration payments.

CALIFORNIA BAY-DELTA RESTORATION

(INCLUDING TRANSFER OF FUNDS)

Appropriations, 2015 .....	\$37,000,000
Budget estimate, 2016 .....	37,000,000
House allowance .....	37,000,000
Committee recommendation .....	37,000,000

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

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

reliability, and water quality in the San Francisco Bay-San Joaquin River Delta, the principle hub of California's water distribution system.

POLICY AND ADMINISTRATION

Appropriations, 2015 .....	\$58,500,000
Budget estimate, 2016 .....	59,500,000
House allowance .....	59,500,000
Committee recommendation .....	58,500,000

The Committee recommends \$58,500,000 for Policy and Administration, a decrease of \$1,000,000 from 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.

INDIAN WATER RIGHTS SETTLEMENTS

Appropriations, 2015 .....	
Budget estimate, 2016 .....	\$112,483,000
House allowance .....	
Committee recommendation .....	

The Committee recommends no funds for Indian Water Rights Settlements in this account.

This account was proposed as a part of the administration request to cover expenses associated with four Indian water rights settlements contained in the Claims Resolution Act of 2010 (Public Law 111-291), title X of the Omnibus Public Lands Management Act of 2009 (Public Law 111-11), and the White Mountain Apache Tribe Rural Water System Loan Authorization Act (Public Law 110-390). Rather than create a new account as proposed, the Committee has recommended funding under the Water and Related Resources account as similar work and funding has been previously provided in that account.

SAN JOAQUIN RESTORATION FUND

Appropriations, 2015 .....	
Budget estimate, 2016 .....	\$35,000,000
House allowance .....	
Committee recommendation .....	

The Committee recommends no funds for the San Joaquin Restoration Fund in this account.

The Committee has provided this funding request under the Central Valley Project, Friant Division of the Water and Related Resources account as similar work and funding has been provided in that account in prior years.

GENERAL PROVISIONS—DEPARTMENT OF THE INTERIOR

Section 201. The bill includes a provision regarding reprogramming and transfer of funds.

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

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 Reclamation Safety of Dams Act of 1978.

Section 206. The bill includes a provision regarding the Reclamation Safety of Dams Act of 1978.

Section 207. The bill includes a provision regarding feasibility studies.

Section 208. The bill includes a provision regarding California Bay-Delta.

Section 209. The bill includes a provision regarding the Central Valley Project Restoration Fund.

### TITLE III

#### DEPARTMENT OF ENERGY

##### OVERVIEW OF RECOMMENDATION

The Committee recommends \$29,429,115,000 for the Department of Energy, a decrease of \$1,098,021,000 from the budget request. Within the funding recommendation, \$18,956,437,000 is classified as defense and \$10,472,678,000 is classified as non-defense.

The Committee recommendation sets priorities by supporting basic energy research; reducing spending of mature technologies; 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, and prevents proliferation of dangerous nuclear materials, and supports the Navy's nuclear fleet; defense environmental cleanup to remediate the former nuclear weapons complex; and safeguards and security for Idaho National Laboratory. Non-defense funding is recommended for the Department's energy research and development programs (including nuclear, fossil, and renewable energy, energy efficiency, grid modernization and resiliency, and the Office of Science), power marketing administrations, the Federal Energy Regulatory Commission, and administrative expenses.

##### REPROGRAMMING GUIDELINES

The Committee's recommendation includes control points to ensure that the Secretary spends taxpayer funds in accordance with congressional direction. The Committee's recommendation also includes reprogramming guidelines to allow the Secretary to request permission from the Committee for certain expenditures, as defined

below, which would not otherwise be permissible. The Secretary's execution of appropriated funds should 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 this report.

Prior to obligating any funds for an action defined below as a reprogramming, the Secretary shall notify and obtain approval of the Committee. The Secretary should submit a detailed reprogramming request in accordance with section 301 of the bill, which should, 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 Committee promptly and fully when a change in program execution and funding is required during the fiscal year.

*Definition.*—A reprogramming includes:

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

#### CROSSCUTTING INITIATIVES

The budget request proposes several crosscutting initiatives that span several program offices. The Committee supports the Secretary's efforts to reach outside of individual program offices to draw on the diverse disciplines within the agency as a whole. These initiatives, which address grid modernization, supercritical CO<sub>2</sub>, subsurface engineering, energy-water nexus, and cybersecurity would allow a more comprehensive review of complex issues. Budgetary constraints do not allow the Committee to recommend full funding for these initiatives at this time, but the Committee directs the Secretary to prioritize funds that are provided within this recommendation to support these crosscutting initiatives to the maximum extent possible. The Secretary is further directed to provide the Committee, not later than 180 days after the enactment of this act, a comprehensive program plan for crosscutting initiatives covering the next five fiscal years, including proposed funding requirements and goals of each new initiative.

*Grid Modernization.*—The Committee supports the Secretary's decision to further coordinate what has been fragmented research and development efforts on grid modernization into a crosscutting initiative, as well as the effort to establish a laboratory consortium to assist in this coordination. University research teams and small-

to-medium sized companies, which are at the core of future power delivery systems innovation, generally lack the research and development budgets and advanced test capabilities for developing new high-power prototypes and devices needed to integrate increasingly large loads of renewable-sourced energy onto the grid. The Committee encourages the Secretary to leverage existing national assets for technical assistance and testing centers for grid and power technologies.

The Committee is encouraged by the Secretary's efforts toward grid modernization research and development planning that will ensure a path toward an integrated, secure, clean, and reliable electricity infrastructure while remaining affordable to consumers. The Committee recognizes the valuable role the national laboratories can play for advancements in electric infrastructure to meet our Nation's energy needs and is supportive of the grid modernization crosscut and the work of the National Laboratory Grid Modernization Consortium. The Committee also encourages the Department's continued coordination to ensure grid-related research across the Department complex is not duplicative. In addition, the Committee directs the Secretary to provide within 180 days of enactment of this act, a detailed implementation plan on the grid crosscut, detailing funding requirements, specific objectives, and delineation of responsibilities among the program offices within the Department.

*Energy-Water Nexus.*—The Committee recognizes there is a clear need to obtain reliable, current, and comprehensive data on energy-for-water and water-for-energy use. Examples include data on water use by power plants, water for fuel extraction and liquid fuel production, energy use by water utilities, and water reuse and replacement. More accurate data and analysis can improve informed decision making; help prioritize investments in energy-water infrastructure; contribute to the research and development of related technologies; and lead to more efficient and sustainable water and energy practices. Transitioning to a more efficient water and energy infrastructure will strengthen the manufacturing and production sectors. In order to better understand water use for power generation and fuel processing, the Committee recommends that the Energy Information Administration [EIA] account for water use in the energy policy analysis it undertakes.

#### QUADRENNIAL ENERGY REVIEW

The first installment of the Quadrennial Energy Review [QER], as directed by the president in January 2014, was released in April 2015. The QER makes recommendations to modernize and improve our energy architecture and infrastructure, specifically in the areas of transmission, storage, and distribution [TS&D]. Modernizing our nation's aging, extensive, vulnerable, and high-demand infrastructure is made even more challenging due to our increasingly diverse energy supply and competing uses of ports and railways for energy transportation. Successfully addressing these critical issues will require coordination among many levels of government and private industry, and the Committee believes the Secretary must solicit and rely on well-informed input from a variety of stakeholders to support recommendations that will lead to a more resilient, reliable

and robust TS&D infrastructure to meet the demands of our 21st century economy. The Committee urges the Secretary to continue engagement with State, local, tribal, and international jurisdictions to inform future action on this modernization roadmap. The Committee encourages and strongly supports the well-designed, purpose-driven, public-private partnerships that have coordinated to create this report.

The Committee directs the Secretary, within 180 days after the enactment of this act, to provide the Committee with a status of implementing the recommendations in the QER, including what has been achieved through the shared interest of involved parties, Federal Government actions cited in the report, and an analysis of recommendations that have not been adopted. The Edison Electric Institute estimated in 2008 that by 2030, the U.S. electric utility industry would need to make a total infrastructure investment of between \$1,500,000,000,000 and \$2,000,000,000,000, of which transmission and distribution are expected to account for about \$900,000,000,000. The Committee looks forward to working with the Secretary to use the QER as a roadmap to support Federal funding of potential solutions, but recognizes that the vast majority of our Nation's infrastructure is privately owned and sustained by the private sector. Supporting the advancement of our energy architecture and infrastructure will not be addressed solely by Federal funding and private investment, but also through changes in the regulatory environment to enable and support these critical investments.

#### COMMONLY RECYCLED PAPER

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

#### SOCIAL COST OF CARBON

The Secretary should not promulgate any regulations in fiscal year 2016 using the May 2013 estimates for the social cost of carbon until a new working group is convened. The working group should include the relevant agencies and affected stakeholders, re-examine the social cost of carbon using the best available science, and revise the estimate using an accurate discount rate and domestic estimate in accordance with Executive Order 12866 and OMB Circular A-4. To increase transparency, the working group should solicit public comments prior to finalizing any updates.

#### 5 YEAR PLAN

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

in future years, and that Congress has full visibility into the future implications of current budget decisions across the Department's energy programs.

Unfortunately, the Secretary has chosen not to comply by omitting any meaningful 5-year budgeting from its four budget requests since enactment of this legal requirement. The Committee directs the Secretary to submit a report, not later than September 30, 2015, to the Committees on Appropriations of both the House of Representatives and Senate, on the plan to comply with section 7279a of title 42 in its fiscal year 2017 budget request. Failure to provide this report may result in more directive measures to ensure the Secretary complies with the law and engages in practices that safeguard taxpayer dollars.

### ENERGY PROGRAMS

#### ENERGY EFFICIENCY AND RENEWABLE ENERGY

Appropriations, 2015 .....	\$1,923,935,000
Budget estimate, 2016 .....	2,722,987,000
House allowance .....	1,668,774,000
Committee recommendation .....	1,950,000,000

The Committee recommends \$1,950,000,000 for Energy Efficiency and Renewable Energy [EERE], a decrease of \$772,987,000 from the budget request. Within available funds, the Committee recommends \$160,000,000 for program direction.

#### VEHICLE TECHNOLOGIES

The Committee recommends \$299,000,000 for Vehicle Technologies.

The Committee recommends not less than \$20,000,000 for applied research to overcome the barriers to widespread adoption of lightweight material designs that include magnesium alloys, aluminum alloys, high-strength steels, and fiber-reinforced polymer composites. Further applied research is needed to develop coatings, adhesives, high-strength fiberglass, and other advanced materials to effectively join mixed materials, prevent corrosion, reduce costs, and address consumer requirements such as noise mitigation and appearance.

The Committee urges the Secretary to work with the natural gas vehicle industry to identify needs and develop solutions for additional engines and emissions control technologies in order to obtain the emission advantages when using natural gas in high efficiency engines.

The Committee directs the Secretary to work with heavy-duty vehicle and engine manufacturers to develop an emissions profile for heavy-duty, dual-fueled natural gas and diesel automobiles to help determine what, if any, emissions control technologies need to be installed on such vehicles to meet environmental regulations. The Committee expects the Secretary to seek the most cost-competitive options as it evaluates the control technology options available to these equipment manufacturers.

The Committee recommends \$20,000,000 for Fuel and Lubricant Technologies. Within available funds, the Committee recommends up to \$5,000,000 for research, development, and demonstration



supporting direct injection engines using propane or liquefied petroleum gas.

The Committee acknowledges the success of the SuperTruck I program in improving freight efficiency and heavy-duty vehicle efficiency. The Committee recommends \$20,000,000 for the SuperTruck II program to further improve the efficiency of heavy-duty class 8 long- and regional-haul vehicles. The Secretary is directed to make up to 4 awards using the multi-year allocation process that was used successfully by the SuperTruck I program.

Within available funds, the Committee recommends \$10,000,000 for continued funding of section 131 of the 2007 Energy Independence and Security Act for transportation electrification.

Within available funds, the Committee recommends not less than \$5,000,000 to support competitive demonstrations of energy storage using electric vehicle batteries to evaluate residual value. The Committee further encourages the Secretary to develop opportunities to partner with nonprofit organizations in deploying workplace electric vehicle charging infrastructure.

The Committee recognizes local initiatives to deploy alternative fuel vehicles and infrastructure are critical to wider adoption of these technologies to diversify our fuel supply and save consumers money. The Committee recommends \$49,000,000 for deployment of vehicles through the Clean Cities Program. The Committee further recommends, within available funds, not less than \$20,000,000 to support the "Alternative Fuel Vehicle Community Partner Projects" for competitive demonstration of electric and advanced fuel deployment programs, with a focus on larger scale deployment proposals.

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

#### BIOENERGY TECHNOLOGIES

The Committee recommends \$225,000,000 for Bioenergy Technologies.

Within available funds, the Committee directs the Secretary to provide a total of \$30,000,000 for algae biofuels. Within available funds, the Committee recommends \$45,000,000 for the Department's final contribution to the Defense Production Act collaboration with the Navy and Department of Agriculture.

The Committee recognizes research and development focused on higher value co-products is an effective strategy for lowering the cost of converting biomass to advanced biofuels. However, the Committee also believes there is an opportunity for the Secretary to invest in the development of broader platforms and capabilities that may drive down conversion costs more generally, and thereby provide additional returns on Federal investment. The Committee encourages the Secretary to explore these opportunities.

The Committee remains concerned the Secretary is interpreting bioenergy too narrowly and failing to consider biopower as a viable output of energy technology projects. When issuing funding oppor-

tunities, the Secretary is directed to include biopower projects as eligible recipients for technology development support.

The Committee supports the Secretary's participation in the Farm to Fly 2 Initiative with the Federal Aviation Administration's Center of Excellence for Alternative Jet Fuels and the Environment. The initiative is intended to be a cost-sharing partnership between academia, industry, and the Federal Government, and the Committee urges the Secretary, within 90 days after the enactment of this act, to provide to the Committee the initiative's cost sharing plans, including projected outyear budgetary requirements.

The Committee supports the Bioenergy Technologies mission to develop and deploy commercially viable biofuels and bioproducts from renewable biomass resources, and encourages the Secretary to further the mission by testing and scaling up new bio-based technologies by conducting a competitive solicitation to establish demonstration-scale multi-user facilities for the production of bio-based products and chemicals.

#### HYDROGEN AND FUEL CELL TECHNOLOGIES

The Committee recommends \$97,000,000 for Hydrogen and Fuel Cell Technologies. The Committee continues to support fuel cell and hydrogen energy systems for stationary, vehicle, motive, and portable power applications. Within available funds, the Committee recommends not less than \$35,200,000 for hydrogen research and development, including research both into direct solar water splitting and near-term cost improvements for hydrogen dispensed at refueling stations.

#### SOLAR ENERGY

The Committee recommends \$241,600,000 for solar energy.

The Committee supports the Secretary's emphasis on advancing integration of distributed solar generation with the existing power grid and on lowering the soft costs of solar installations for residential and small-scale commercial customers. The financing, contracting, permitting, inspection, and installation costs can add significantly to the overall cost of solar system acquisition. The Secretary's efforts to develop the workforce, regulatory and legal expertise, and information technology tools are needed to drive down costs for solar technology for every day consumers.

The Committee recognizes that solar energy is one of the fastest growing industries in the United States, and employs 174,000 workers today. Within available funds, the Committee recommends \$1,000,000 for the Secretary's contribution to the joint Solar Ready Vets program with the Department of Defense as a way to train America's veterans to fill this growing skill need.

Within available funds, the Committee recommends \$48,400,000 for concentrating solar power projects that lower the cost of the technology, address electric grid reliability integration of variable renewable power into the electric grid, and support the Supercritical Transformational Electric Power Generation Initiative. Areas of research and development should include improved design of solar collection, higher cooperating receivers, and the integration of higher temperature power cycles.

WIND ENERGY

The Committee recommends \$46,000,000 for Wind Energy. Within these funds, the Committee recommends \$40,000,000 for off-shore wind demonstration projects, and \$6,000,000 to further substantiate the design and economic value proposition of alternative project designs for offshore wind power. No additional funding is recommended for Wind Energy.

WATER POWER

The Committee recommends \$65,000,000 for Water Power. Within available funds, the Committee recommends \$23,000,000 for conventional hydropower, including up to \$3,900,000 for the purposes of section 242 of the Energy Policy Act of 2005, and not less than \$5,000,000 shall support competitive demonstrations of pumped hydroelectric storage projects.

*Marine and Hydrokinetic Technology Research, Development, and Deployment.*—Within available funds, the Committee recommends \$42,000,000 for marine and hydrokinetic [MHK] technology research, development, and deployment. Within this amount, the Committee recommends \$20,000,000 for a balanced portfolio of competitive private sector-led research, development and demonstrations of MHK technologies, including wave and current (tidal, river, ocean) energy conversion technologies. No funding is recommended for advanced design tools, the incubator program, or for the clean energy manufacturing initiative. Within available funds, the Committee recommends \$5,000,000 to continue its development and construction for an open water, fully energetic, grid-connected wave energy test facility. The Committee also directs the Secretary to share with Congress the outcome of the ongoing consultation with the MHK energy industry on the program's research, development and deployment priorities, and to ensure related activities by the national laboratories support industry-driven technology advancement projects, with a priority on the development of domestic technologies. The Secretary is also encouraged to review and share the findings with Congress on how the Small Business Innovation Research program may be more effectively utilized to support the goals of the Water Power Program.

The Committee encourages the Secretary to support activities to develop advanced MHK systems and component technologies to increase energy capture, reliability, and survivability for lower costs and to assess and monitor environmental effects.

GEOTHERMAL TECHNOLOGIES

The Committee recommends \$71,000,000 for Geothermal Technologies. Funds made available by this section shall be disbursed to the full spectrum of geothermal technologies, as authorized by the Energy Independence and Security Act of 2007 (Public Law 110-140). The Secretary is encouraged to continue to support comprehensive programs that foster academic and professional development initiatives.

To facilitate necessary technology development and expand understanding of subsurface dynamics, the Committee recommends \$35,000,000 for the Frontier Observatory for Research in Geo-

thermal Energy [FORGE], which will use a competitive process to site and construct a facility for the design, development, and testing of innovative methods of generating electricity for geothermal resources.

#### ADVANCED MANUFACTURING

The Committee recommends \$214,000,000 for Advanced Manufacturing. The Committee recognizes the importance of the manufacturing sector to the U.S. economy, which directly generates 12 percent of the gross domestic product and employs nearly 12 million people.

Within available funds, the Committee recommends \$84,000,000 to support the existing 3 Clean Energy Manufacturing Institutes [CEMI], including \$14,000,000 each for the wide bandgap semiconductor institute, the advanced composites institute, and the smart manufacturing institute, a fourth institute to be awarded in fiscal year 2015. The Committee recommendation includes funding to establish an additional CEMI. The Committee is pleased that several diverse consortia were formed to respond to these innovation opportunities, but is concerned there are limited resources available to support both the focus areas and additional teams that were not selected for prior awards. The Committee urges the Secretary to find mechanisms to support the ideas that were not funded in previous awards, but have technical merit for advanced manufacturing developments. For the fourth and each subsequent institute, the Secretary shall conduct an open solicitation and competitive, merit-based review process.

The Committee recognizes that stranded, flared, and vented natural gas is the result of low natural gas prices that make transporting it uneconomic. As topics for additional Clean Energy Manufacturing Institutes are evaluated, the Secretary is encouraged to consider modular chemical processing as a way to address the issue of natural gas flaring and enable advanced manufacturing applications in the oil and gas industry.

The Committee recommends \$25,000,000 for the Critical Materials Hub aimed at improving critical material supply chains that are prone to disruption. The Committee notes that the Hub has focused on high-priority problems and has developed strong milestones. The Committee supports the Hub's goal of developing at least one technology adopted by U.S. companies within each of its three focus areas: diversifying and expanding production; reducing wastes; and developing substitutes.

Related to critical materials and advanced fabrication techniques, the Committee further recognizes the promise of new nanostructured metals that can be used in structural applications, extreme environments, and chemical synthesis with direct relevance to advanced energy technologies. Within available funds, the Committee recommends \$3,000,000 for university and industry support to help bridge the gap between laboratory research and marketplace deployment of these new materials.

The Committee recommends \$20,000,000 for development of additive manufacturing processes, low-cost carbon fiber, and other manufacturing technologies at the existing Manufacturing Demonstration Facility [MDF]. The Committee notes the ongoing em-

phasis on assisting small- and medium-sized businesses overcome the risks and challenges of investing in specialized, high-technology equipment at the MDF. The Secretary is encouraged to continue this emphasis in the coming year.

The Committee supports continued research and development of technologies to produce low-cost carbon fiber. The Committee encourages the Secretary to create a pilot program to make a competitive award to produce at least 2 million pounds of carbon fiber per year at a target price of less than \$5 per pound. The pilot program should require recipients to directly synthesize carbon filament, eliminating dependence of filament precursors and the requisite carbonization process, while minimizing all post-processing while demonstrating significantly less total energy consumption.

The Committee recommends \$1,500,000 for the joint additive manufacturing pilot institute with the Department of Defense.

#### BUILDING TECHNOLOGIES

The Committee recommends \$178,000,000 for Building Technologies. The Committee supports the focus on advanced technologies for heating, ventilation, and air conditioning systems, recognizing that such technologies have the potential to reduce the national cost of energy by 20 to 50 percent. The Committee recognizes that most building standard codes are developed and implemented by State and local governments. Therefore, the Committee also supports ongoing efforts to work with State and local agencies to incorporate the latest technical knowledge and best practices into construction requirements.

Within available funds, the Committee recommends \$26,000,000 for the Residential Building Integration Program. Within this amount, funding should be concentrated on industry teams to facilitate research; demonstrate and test new systems; and encourage widespread deployment. These activities should be coordinated through direct engagement with builders, the construction trades, equipment manufacturers, smart grid technology and systems suppliers, integrators, and State and local governments.

The Committee recommends \$60,000,000 for the Emerging Technologies subprogram. Within available funds, the Committee recommends \$14,000,000 for transactive controls research and development. Within available funds, the Committee recommends \$24,000,000 for solid-state lighting technology development to focus on reducing the cost of organic light-emitting diodes and other technologies. If the Secretary finds solid-state lighting technology eligible for the Bright Tomorrow Lighting Prize, specified under section 655 of the Energy Independence and Security Act of 2007, \$5,000,000 is included in addition to funds for solid-state lighting research and development.

The Committee is concerned the Department's final rule setting energy efficiency standards for commercial refrigerators [Energy Conservation Standards for Commercial Refrigeration Equipment; 79 FR 17725 (March 28, 2014)] established its required energy efficiency targets based on the performance of equipment using hydrofluorocarbons [HFCs], refrigerants that have been in the marketplace for over 20 years. HFCs will be phased out of production by Environmental Protection Agency [EPA] regulatory action before

the Department's standard takes effect. The Committee encourages the Department to reassess its standards in light of the EPA action and take necessary action to resolve any conflicts between the two agencies' standards.

WEATHERIZATION AND INTERGOVERNMENTAL PROGRAM

The Committee recommends \$190,000,000 for the Weatherization Assistance Program, \$3,000,000 for Training and Technical Assistance, \$400,000 for NREL Sitewide Facility Support, and \$50,000,000 for State Energy Program Grants. No funding is recommended for the Local Technical Assistance Program proposed in the budget request.

CORPORATE SUPPORT

The Committee recommends \$243,000,000 for Corporate Support, including \$2,000,000 for the United States-Israel energy cooperative agreement within Strategic Programs. The Committee understands that the EERE has previously executed the United States-Israel Binational Industrial R&D [BIRD] program to include authorized energy efficiency and renewable energy technologies. The Committee directs the Secretary, within 180 days of enactment of this act, to report on implementation and coordination plans between EERE and the Office of Fossil Energy to support research and development of natural gas energy technologies, as section 12 in Public Law 113-296, the United States-Israel Strategic Partnership Act of 2014, expanded the scope of collaborative research and development to include water technologies and natural gas energy, including conventional, unconventional, and other associated natural gas technologies.

ELECTRICITY DELIVERY AND ENERGY RELIABILITY

Appropriations, 2015 .....	\$147,306,000
Budget estimate, 2016 .....	270,100,000
House allowance .....	187,500,000
Committee recommendation .....	152,306,000

The Committee recommends \$152,306,000 for Electricity Delivery and Energy Reliability, a decrease of \$117,794,000 from the budget request. Within available funds, the Committee recommends \$27,000,000 for program direction. The Committee directs the Secretary to provide regular updates of reported data on the status of energy infrastructure and concerns impacting the energy sector as they become available.

The modernization of the electrical grid is critical to ensuring national security, sustaining our Nation's economic growth, and maintaining our way of life. The electrical grid is a complex system, owned and operated by numerous regulated and non-regulated private and public entities. Implementation and execution of these new technologies must be driven by private market acceptance, and not forced on industry. Many organizations throughout the United States, including national laboratories, academia, and industry are leading the grid modernization effort. To maximize the value of taxpayer investment in the grid modernization strategy, the Committee suggests that the Secretary's initiatives be fairly and equi-

tably competed to ensure the best ideas, technologies, and teams are brought together to develop the best solutions for the electric grid of the future.

To ensure our energy systems are safe, secure, reliable, sustainable, and cost-effective, the Committee supports a strategy that involves extensive partnerships between government, academia, and industry to undertake the transition and modernization of the electrical grid to address our major energy issues. The Committee directs the Secretary to complete an independent, third-party assessment of the United States' capabilities to perform multi-megawatt testing that meets the goals supporting the Grid Modernization Multi-Year Program Plan. Following the completion of the assessment and if the Secretary deems appropriate, the Committee urges the Secretary to establish through a competitive bid process, a national user center capable of operating in the multi-megawatt range, above 2 MW, to support the Nation's grid modernization efforts to advance utility scale technologies like energy storage. World-class testing facilities that can replicate real world conditions, without risks to the existing grid, are needed at the residential, commercial, and distribution level to test and validate these innovations. The Committee is aware the Secretary has invested in testing facilities of 2 MW and below, and facilities are needed at the multi-megawatt level above 2 MW for technologies at the distribution level.

The Committee continues to support the Secretary's research activities to ensure transmission reliability. Recent weather-related events, however, have reinforced the need for integration of local, regional, and national weather into transmission reliability and resiliency modeling and simulation activities to support the utility industry and emergency response. The Committee encourages the Secretary to partner with universities, national laboratories, and industry when issuing competitively awarded research and development activities to ensure regional weather and related environmental variables are accounted for in advanced grid modeling research.

#### CLEAN ENERGY TRANSMISSION AND RELIABILITY

The Committee recommends \$34,000,000 for Clean Energy Transmission and Reliability. The Committee believes that the integration of distributed and intermittent renewable sources of generation into existing infrastructure and transmission and distribution networks is critical to the effective deployment of clean energy sources. Developing the analytical and modeling tools in collaboration with utilities, grid operators, and universities will lay the foundation for risk assessment.

The Committee supports the Secretary's proposed research on advanced modeling capabilities to improve electric planning and operations. Advances in big data analytic capabilities and modeling and visualization technologies offer potential for improving efficient operations of the electric grid particularly when incorporating power from variable renewable energy sources. Within Energy Systems Risk and Predictive Capability and Advanced Modeling Grid Research, the Secretary is directed to consider an expanded scope of projects, in addition to response to energy supply disruption, and

to include university and industry teams for research and workforce development. The Committee notes that workforce education will be critical to the successful and rapid transition of advanced modeling and simulation solutions developed under this program. The Committee recognizes that further investment is needed to maintain and expand power and energy education programs, and secure industry partnerships to facilitate the development of a highly skilled next-generation technical and engineering workforce for the electric power sector. Therefore, the Committee encourages the Secretary to prioritize research and development investments to engage and further develop the capabilities of university undergraduate and graduate programs in power and energy.

The Committee also encourages the Secretary to consider expanding research and development partnerships, including those related to the development and deployment of microgrids. Partnerships should engage stakeholders in diverse geographic regions with unique market dynamics and policy challenges. These partnerships should inform nationwide efforts to improve grid resiliency, reliability, security, and integration of a broad range of generation sources, and consumer empowerment.

#### SMART GRID RESEARCH AND DEVELOPMENT

The Committee recommends \$15,307,000 for Smart Grid Research and Development. Within available funding, \$5,000,000 is for development of advanced, secure, low-cost sensors that measure, analyze, predict, and control the future grid during steady state and under extreme conditions.

The Committee recognizes the opportunities presented by the application, integration, and investment in grid technologies across all sectors of the economy. The Secretary should ensure that efforts in these areas are coordinated and focused on the evolution to the grid of the future.

#### CYBER SECURITY FOR ENERGY DELIVERY SYSTEMS

The Committee recommends \$45,999,000 for Cyber Security for Energy Delivery Systems. Within available funds, the Committee recommends not less than \$5,000,000 to develop cyber and cyber-physical solutions for advanced control concepts for distribution and municipal utility companies. The potential threat posed by cyber security attacks on our critical energy infrastructure cannot be underemphasized and must be appropriately guarded against.

#### ENERGY STORAGE

The Committee recommends \$13,000,000 for Energy Storage. Within available funds, the Committee supports a utility-sponsored and operated energy storage test facility capable of performance-driven data in a utility environment.

#### TRANSFORMER RESILIENCE AND ADVANCED COMPONENTS

The Committee recommends \$5,000,000 for Transformer Resilience and Advanced Components. The Committee directs the Secretary to support research and development on 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.

#### NATIONAL ELECTRICITY DELIVERY

The Committee recommends \$6,000,000 for National Electricity Delivery. The Committee encourages the Secretary to allocate a portion of this funding for a competitive grant program to help States, regional, and tribal entities to develop, refine, and improve their programs, policies, and laws related to electricity in order to facilitate the development and deployment of reliable and affordable energy infrastructure, whether generation, transmission, distribution, or demand side electricity resources.

#### INFRASTRUCTURE SECURITY AND ENERGY RESTORATION

The Committee recommends \$6,000,000 for Infrastructure Security and Energy Restoration.

*Energy Resilience and Operations Center.*—No funding is provided for the Energy Resilience and Operations Center [Operations Center]. The Energy and Water Development and Related Agencies Appropriations Act, 2015, provided up to \$8,000,000 to support construction of the Operations Center within the Department's headquarters in Washington, DC. The Committee understands that this office is now engaged in a joint effort with the National Nuclear Security Administration, and that construction of the Operations Center has been delayed.

Although Congress included clear direction and funding in fiscal year 2015 for this project, the Secretary chose to take a different course without notifying the Committee. The Committee understands that the Secretary may propose to use less than the \$8,000,000 made available for fiscal year 2015, while asking for additional funds for fiscal year 2016. If, by the date of enactment of this act, the Secretary has used, or has proposed to use, less than the \$8,000,000 that Congress made available in fiscal year 2015 for the Operations Center, the Secretary, within 30 days after the date of enactment of this act, shall submit a report to the Committee describing the amount of fiscal year 2015 funds proposed to be used to construct the Operations Center; an explanation of why the Secretary did not use or propose to use all funding that was made available for the Operations Center; and which programs, projects, or activities were a higher priority for funding.

The Committee further directs the Secretary to execute this project in accordance with congressional direction, and to provide the Committee with a monthly status report, until construction has been completed, on changes to schedule, cost, and scope. Because construction may not begin in fiscal year 2015, the Committee recommends no new funding for the Operations Center for fiscal year 2016. If the Secretary completes construction in fiscal year 2016, the Secretary may reprogram up to \$3,000,000 for the facility from funds made available for Electricity Delivery and Energy Reliability, subject to the Committee's approval. If the Operations Center becomes operational in fiscal year 2016, the Committee directs the Secretary to notify the Committee each time the Operations Center is activated.

STATE ENERGY RELIABILITY AND ASSURANCE

The Committee recommends no funds for State Energy Reliability and Assurance.

NUCLEAR ENERGY

Appropriations, 2015 .....	\$833,500,000
Budget estimate, 2016 .....	907,574,000
House allowance .....	936,161,000
Committee recommendation .....	950,161,000

The Committee recommends \$950,161,000 for Nuclear Energy, an increase of \$42,587,000 from the budget request. The Committee's recommendation for nuclear power prioritizes funding for programs, projects and activities that will ensure a strong future for nuclear power in the United States.

Nuclear power provides more than 20 percent of our Nation's electricity and more than 60 percent of our emissions-free electricity. Electricity generation from our Nation's 99 operating nuclear power plants is critical to our national security, economy, and way of life. Programs, projects, and activities that are funded within the Nuclear Energy account.

The Committee supports the Secretary reconvening the working group among the national laboratories with nuclear capabilities, and directs the Secretary to continue those efforts.

RESEARCH AND DEVELOPMENT

SMALL MODULAR REACTOR LICENSING TECHNICAL SUPPORT

The Committee recommends \$62,500,000 for Small Modular Reactor Licensing Technical Support, the same as the request. The Committee notes that Small Modular Reactors may provide a cost-effective method of generating electricity.

SUPERCritical TRANSFORMATION ELECTRIC POWER GENERATION INITIATIVE

The Committee recommends \$5,000,000 for the Supercritical Transformational Electric Power Generation Initiative for an industry cost-shared demonstration project.

REACTOR CONCEPTS RESEARCH, DEVELOPMENT, AND DEMONSTRATION

The Committee recommends \$117,874,000 for Reactor Concepts Research, Development, and Demonstration. The Committee directs the Nuclear Energy Program to focus funding for Reactor Concepts Research, Development and Demonstration, which includes funding for Advanced SMRs and Advanced Reactor Concepts, on technologies that show clear potential to be safer, less waste producing, more cost competitive, and more proliferation-resistant than existing nuclear power technologies. Within available amounts, the Committee recommends up to \$12,000,000 for industry-only competition to further the development of deployable advanced reactor components.

*Light Water Reactor Sustainability.*—Within available funds, the Committee recommends \$43,275,000. The most cost effective way for the United States to maintain low-cost, carbon-free electricity

is to safely extend the lives of our Nation's existing nuclear reactors from 60 to 80 years. Therefore, the Committee recommends additional funding for this activity as a priority. The Committee directs the Secretary to use funding in this activity to continue research and development work on the technical basis for subsequent license renewal. The Secretary should focus funding in this program on materials aging and degradation, advanced instrumentation and control technologies, and component aging modeling and simulation. The Secretary shall also coordinate with industry to determine other areas of high-priority research and development in this area.

#### FUEL CYCLE RESEARCH AND DEVELOPMENT

The Committee recommends \$217,000,000 for Fuel Cycle Research and Development within which, \$97,000,000 is for the Used Nuclear Fuel Disposition program.

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 this important national issue. Therefore, the Committee again includes a general provision in section 306 of this bill authorizing the Department of Energy to develop a pilot program for a consolidated storage facility, pending enactment of more comprehensive legislation. Furthermore, the Committee provides a technical correction in section 311 that broadens the contractual arrangements by which the government can acquire spent fuel storage capabilities. The Committee recommends \$30,000,000 for used nuclear fuel disposition to implement sections 306 and 311. Within this amount, funds are provided for financial and technical assistance associated with a consent-based siting process, including education, technical analyses, and other support to entities considering hosting an interim storage facility; and for incentive payments to entities with signed agreements with eligible jurisdictions.

Transportation of spent nuclear fuel will require detailed planning within the Department, coordination with state and local governments, and the acquisition of specialized equipment and capabilities. The Secretary should engage in these activities so that it is ready to transport spent nuclear fuel when storage capabilities, however acquired, become available. Within the funds provided, the Committee again recommends \$3,000,000 to design, procure, and test industry-standard compliant rail rolling stock in a timeframe that supports the transportation of spent fuel to the interim storage facility.

Within the amount recommended for used nuclear fuel activities, \$3,000,000 is provided for the Secretary to continue to develop disposal pathways for defense high-level radioactive waste.

Research and development activities on behavior of spent fuel in long-term storage, under transportation conditions, and in various geologic media will continue to be important to developing a new solution to the waste problem. Within the amounts recommended for used nuclear fuel disposition, \$64,000,000 shall be for continuance of these activities. Priority should be placed on the ongoing study of the performance of high-burnup fuel in dry storage and on

the potential for direct disposal of existing spent fuel dry storage canister technologies.

The Committee recommends \$60,100,000 for the Advanced Fuels program. The Department is directed to continue implementation of the accident tolerant fuels development program, the new goal of which is development of accident tolerant nuclear fuels leading to commercial reactor fuel assembly testing by 2022. The Committee directs the Secretary to consult with industry, universities and other interested organizations on a commercialization roadmap for these technologies, including new Silicon carbide based ceramic material. The Secretary is directed to share the outcome of this consultation with the Committee. While the benefit of incremental improvements to existing commercially available fuels is acknowledged, there is concern that the Department's ongoing activities on accident tolerant fuels will not ultimately lead to meaningful reductions in the consequences of unexpected severe accidents in nuclear power plants. Therefore, \$12,000,000 is provided for the continued industry led cost-shared program on Accident Tolerant Fuels, and \$3,000,000 is provided for continuation of the previously competitively awarded Small Business projects to develop ceramic cladding for Accident Tolerant Fuels. Further, the Committee continues to be concerned that the Secretary has not yet provided to the Committee the plan for development of accident tolerant fuels leading to in-reactor testing and utilization as required by the Fiscal Year 2012 Consolidated Appropriations Act (Report 112-75). The Committee directs the Department to provide this report to the Committee no later than 30 days after enactment of this act.

NUCLEAR ENERGY ENABLING TECHNOLOGIES

The Committee recommends \$101,000,000 for Nuclear Energy Enabling Technologies. The Committee recommends \$24,300,000 for the Energy Innovation Hub for Modeling and Simulation.

INFRASTRUCTURE

RADIOLOGICAL FACILITIES MANAGEMENT

The Committee recommends \$20,800,000 for Radiological Facilities Management, including \$14,000,000 for continued safe operation of Oak Ridge National Laboratory hot cells. The Committee commends that Secretary for including additional funding for this activity in the Office of Science.

FOSSIL ENERGY RESEARCH AND DEVELOPMENT

Appropriations, 2015 .....	\$571,000,000
Budget estimate, 2016 .....	560,000,000
House allowance .....	605,000,000
Committee recommendation .....	610,000,000

The Committee recommends \$610,000,000 for Fossil Energy Research and Development, an increase of \$50,000,000 from the budget request. Within available funds, the Committee recommends \$115,000,000 for program direction. The Committee recognizes that this program supports vital research on clean coal technologies, and has accordingly provided significant funds above the budget request to accelerate these activities. The Committee notes that clean

coal technology affords our Nation the ability to respond to environmental challenges by improving the performance of our coal-based electricity fleet, while also allowing for continued utilization of abundant and affordable U.S. coal.

According to the Energy Information Administration, fossil energy resources meet approximately 82 percent of the United States demand. Fossil fuels support the activities of a modern economy, and will continue to supply our Nation's energy needs for the foreseeable future. Approximately 67 percent of the electricity generated in the United States is from coal, natural gas, and petroleum, and fossil fuel generation is and will continue expanding across the world. The Committee notes that the Department should allocate sufficient resources to support fossil energy research, development, and demonstrations to improve both existing technologies and develop the next generation of clean, affordable, and safe systems.

The Committee notes the improved coordination among the Office of Fossil Energy and other program office on work examining the feasibility of recovering rare earth materials from coal and coal-byproduct streams.

#### COAL, CCS AND POWER SYSTEMS

The Committee recommends \$402,000,000 for CCS and Power Systems. The Committee encourages the Secretary to establish university partnerships to support ongoing fossil energy programs, to promote broader research into CCS technologies, and to expand its technology transfer efforts. The Secretary has previously funded several university-based CCS projects, and should build on an established research base to support ongoing research, as well as address the wider implementation of CCS technologies.

The Committee supports the Secretary's cooperative agreements to develop cost sharing partnerships to conduct basic, fundamental, and applied research that assist industry in developing, deploying, and commercializing efficient, low-carbon, non-polluting energy technologies that could compete effectively in meeting requirements for clean fuels, chemical feedstocks, electricity, and water resources.

The Secretary is further directed to report to the Committees on Appropriations of the House of Representatives and the Senate not later than June 30, 2015, on the reallocation of base funding to other ongoing large-scale Clean Coal Power Initiative demonstration projects.

*Carbon Capture.*—Within the recommendation, \$88,000,000 is for Carbon Capture to support the R&D and scale-up of 2nd generation and transformational technologies for capturing CO<sub>2</sub> from new and existing industrial and power-producing plants. The Committee recommendation includes \$30,000,000 for the Department's National Carbon Capture Center. The Committee recommends \$250,000 for an assessment of research and development needs to aid in the development and commercialization of direct air capture technologies that capture carbon dioxide from dilute sources, such as the atmosphere, on a significant scale.

*Carbon Storage.*—Within the recommendation, \$99,000,000 is for Carbon Storage. Within funds available for Carbon Storage, the

Committee recommends \$63,084,000 for Regional Carbon Sequestration Partnerships, the same as the request, and \$10,000,000 for Carbon Use and Reuse for research and development activities to support valuable and innovative uses for carbon. The Committee recognizes that finding new commercial uses for captured carbon could significantly offset the costs of capturing and sequestering carbon from our Nation's coal-fired power plants. The Committee encourages the Secretary to use its existing authorities to fund activities that promote the reuse of captured carbon from coal and other sources in the production of fuels and other products. The Committee also urges the Secretary to support other carbon dioxide utilization technologies in addition to Enhanced Oil Recovery [EOR], including using carbon dioxide to produce algae. The Committee encourages the Office of Fossil Energy to collaborate with the Bioenergy Technologies program within the Office of Energy Efficiency and Renewable Energy to support projects that utilize carbon dioxide in the production of algae.

*Advanced Energy Systems.*—Within the recommendation, \$103,000,000 is for Advanced Energy Systems, which supports improving the efficiency of coal-based power systems, enabling affordable CO<sub>2</sub> capture, increasing plant availability, and maintaining the highest environmental standards. The Committee supports and encourages the Secretary to fund research and development of Gasification Systems, which focuses on technology developments to reduce the cost of coal gasification and facilitates co-feeding of coal with biomass or waste; Advanced Combustion Systems, which focuses on the development of oxy-combustion and chemical looping processes that are applicable to new and existing power plants; Coal and Coal-Biomass to Liquids, which the Secretary did not include in its budget request, and Solid Oxide Fuel Cells, which focuses on research and development to enable efficient, cost-effective electricity generation from coal and natural gas with near-zero atmospheric emissions of CO<sub>2</sub> and pollutants, as well as minimal water use in central power generation applications that can be integrated with carbon capture and storage. Within available funding, the Committee urges the Secretary to fund research and development activities to improve the efficiency of gas turbines used in power generation systems, working cooperatively with industry, small businesses, universities, and other appropriate parties.

*NETL Coal Research and Development.*—Within the recommendation, the Committee provides \$53,000,000 for NETL Coal Research and Development. The Committee is supportive of the mission of conducting in-house research activities, such as activities in Carbon Capture, Carbon Storage, Advanced Energy Systems, and Cross-cutting research for the Coal R&D programs.

#### NATURAL GAS TECHNOLOGIES

The Committee recommends \$43,000,000 for Natural Gas Technologies. The recommendation does not include additional funding for the joint research effort with the Environmental Protection Agency and the U.S. Geological Survey into hydraulic fracturing technologies. The Committee notes that it has provided funding for this joint research effort over the prior 4 years, and that the Secretary is scheduled to submit a final report to Congress during the

summer of 2015. If the Department chooses to pursue additional joint research after submission of the final report, the Secretary may propose specified topics, along with the total cost and expected duration of the research, in the fiscal year 2017 budget request.

*Risk-Based Data Management System.*—Within available funds, the Committee recommends \$5,200,000 to continue the Risk-Based Data Management System [RBDMS], and support the addition of including water tracking in pre- and post-drilling applications where States require them. Funds are also recommended to integrate FracFocus and RBDMS for improved public access to State oil and gas related data, as well as for State regulatory agencies to support electronic permitting for operators, eForms for improved processing time for new permits, operator training for the improved FracFocus 3.0, and additional reports. The Committee supports this initiative's continued efforts to provide public transparency, while protecting proprietary information.

*Methane Hydrate Activities.*—The Committee notes that the request does not include funding for methane hydrate activities. The Committee understands that instead of requesting additional funds in fiscal year 2016 to continue methane hydrates research, the Secretary instead elected to spend the \$15,000,000 provided in fiscal year 2015 more slowly, contrary to the intent of Congress, and potentially delaying important research activities for a year. The Committee recommendation rejects the Secretary's approach, and provides, within available funds, \$19,800,000 for methane hydrates. The Committee also encourages the Secretary to perform a long-term methane hydrate production test in the Arctic, as proposed in the Methane Hydrate Advisory Committee's May 21, 2014, recommendations to the Secretary.

*Environmentally Prudent Development.*—The Committee recommends \$6,000,000 for Environmentally Prudent Development subprogram.

*Emissions Mitigations from Midstream Infrastructure.*—The Committee recommends \$7,000,000 for Emissions Mitigation from Midstream Infrastructure subprogram.

*Emissions Quantification from Natural Gas Infrastructure.*—The Committee recommends \$5,000,000 for Emissions Quantification from Natural Gas Infrastructure research subprogram.

#### UNCONVENTIONAL FOSSIL ENERGY TECHNOLOGIES

The Committee recommends \$25,321,000 for Unconventional Fossil Energy Technologies. The Secretary did not include any funding in the fiscal year 2016 budget request, and 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.

In September 2011, the Secretary submitted its "Domestic Unconventional Fossil Energy Resource Opportunities and Technology Applications" report to Congress, as directed in the fiscal year 2010 Energy and Water Development Appropriations bill. The report outlines the domestic unconventional resource opportunities and technology applications of a comprehensive research, development, and deployment [RD&D] strategy for unconventional oil, gas, and

coal resources. The Secretary is encouraged to fund high-priority RD&D activities identified in the report, including oil shale.

The Committee supports the Secretary's efforts to conduct research on crude by rail safety. The Secretary is uniquely suited to understand the characteristics of crude, including volatility and other properties, which bear on safe methods of transportation. Given the public safety concerns, the Committee supports the joint effort with the Department of Transportation to conduct and conclude the second phase of this study at the soonest available time. Within funds available under this heading, the Committee recommends up to \$1,000,000 to provide for the study. The Committee also encourages the Secretary to examine the impacts of State and Federal regulations on transportation and delivery of oil, including potential safety and health risks.

Within available funds, the Committee encourages the Secretary to support efforts to increase production of unconventional fossil fuels through advanced technology and modeling, including optimizing high resolution and time-lapse geophysical methods for improved resource detection and better rock characterization at the micro- and nano-scale. The Committee also encourages the Secretary to examine the feasibility of utilizing geothermal energy from produced fluids for in-field energy requirements.

NAVAL PETROLEUM AND OIL SHALE RESERVES

Appropriations, 2015 .....	\$19,950,000
Budget estimate, 2016 .....	17,500,000
House Allowance .....	17,500,000
Committee recommendation .....	17,500,000

The Committee recommends \$17,500,000 for Naval Petroleum and Oil Shale Reserves, the same as the budget request.

STRATEGIC PETROLEUM RESERVE

Appropriations, 2015 .....	\$200,000,000
Budget estimate, 2016 .....	257,000,000
House Allowance .....	212,030,000
Committee recommendation .....	200,000,000

The Committee recommends \$200,000,000 for the Strategic Petroleum Reserve, a decrease of \$57,000,000 from the budget request.

The Committee recognizes the work the Secretary is undertaking to conduct a long-term strategic review of the Strategic Petroleum Reserve. The Committee looks forward to the results of the review, and the Secretary's recommendations on future investments in infrastructure and associated maintenance.

NORTHEAST HOME HEATING OIL RESERVE

Appropriations, 2015 .....	\$1,600,000
Budget estimate, 2016 .....	7,600,000
House allowance .....	7,600,000
Committee recommendation .....	7,600,000

The Committee recommends \$7,600,000 for the Northeast Home Heating Oil Reserve, the same as the request.



ENERGY INFORMATION ADMINISTRATION

Appropriations, 2015 .....	\$117,000,000
Budget estimate, 2016 .....	131,000,000
House allowance .....	117,000,000
Committee recommendation .....	122,000,000

The Committee recommends \$122,000,000 for the Energy Information Administration, a decrease of \$9,000,000 from the budget request.

NON-DEFENSE ENVIRONMENTAL CLEANUP

Appropriations, 2015 .....	\$246,000,000
Budget estimate, 2016 .....	220,185,000
House allowance .....	229,193,000
Committee recommendation .....	244,000,000

The Committee recommends \$244,000,000 for Non-Defense Environmental Cleanup, an increase of \$23,815,000 from the budget request.

*Small Sites.*—The Committee recommends \$77,822,000 for Small Sites. Within the available funds, the Committee recommends \$6,000,000 to complete the design and initiate construction of facilities pursuant to the agreement reached in 2012 between the Department of Energy, the Advisory Council on Historic Preservation, and State and local governments to complete the demolition of K-25 in exchange for preserving the historic contributions made by the K-25 site to the Manhattan Project. The Secretary should consider this regulatory requirement as no different than any other regulatory requirement, and is directed to request appropriate funding to satisfy the requirements of the National Historic Preservation Act in future budget requests.

Within available funds, the Committee recommends \$17,000,000 to continue to deactivate, decommission, and demolish facilities at Lawrence Berkeley National Laboratory. Further, the Committee commends the Secretary for work to preserve cultural and sacred sites at the Energy Technology Engineering Center, and encourages the Secretary to continue working with Native American tribes, the community, and other Federal, State, and local agencies to ensure that this portion of the property is preserved for future generations.

The Committee remains concerned that the Secretary is not requesting adequate funding within the Non-Defense Environmental Cleanup account. Further, the budget request stated that the Department has no liability for the decommissioning and decontamination of the Southwest Experimental Fast Oxide Reactor, despite that facility being constructed for, and used by, the Atomic Energy Commission. Funding has been provided by Congress to complete the planning work for cleanup. The Committee encourages the Secretary to request sufficient funding to execute the work in future budget requests, and execute the work via an innovative firm-fixed price remediation contract.

URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING  
FUND

Appropriations, 2015 .....	\$625,000,000
Budget estimate, 2016 .....	542,289,000
House allowance .....	625,000,000
Committee recommendation .....	614,000,000

The Committee recommends \$614,000,000 for Uranium Enrichment Decontamination and Decommissioning [UED&D] activities, an increase of \$71,711,000 from the budget request.

The Committee recommendation includes \$194,673,000 for East Tennessee Technology Park [ETTP], \$199,925,000 for Paducah, and \$165,417,000 for Portsmouth. Within available funds for ETTP, the Committee recommendation includes up to \$3,000,000 for demolition of the Building K-1200 Complex if the Secretary makes a determination under 42 U.S.C. 2296a-3(1)(b).

The Committee recommends \$32,959,000 for the Title X Uranium and Thorium Reimbursement Program. Title X of the Energy Policy Act of 1992 authorizes the Secretary to reimburse eligible licensees for the Federal Government's share of the cost associated with cleaning up former uranium and thorium processing sites across the country. The Committee continues to be concerned about the accumulating balances and liabilities owed to private licensees for the Department's failure to address the Federal Government's cost share. The Committee notes the administration requested funding for title X for the first time since fiscal year 2008. Fulfilling the obligation to fully reimburse licensees is important to the health and safety of the impacted communities. Moving forward, the Committee expects the Secretary to request sufficient resources within its annual budget request to reimburse licensees for approved claim balances.

The Committee directs the Secretary to provide a report consistent with section 1805 of the Atomic Energy Act of 1954, as amended by the Energy Policy Act of 1992, that requires the Secretary to submit a report every 3 years to Congress on the progress and success of the UED&D program. The report should include an assessment of remaining facilities that require UED&D cleanup along with any recommended changes to facilities designated for cleanup funding. The last report was submitted to Congress in December 2010.

*Transparency on Uranium Transfers.*—Congress included permanent notification authority for the Secretary regarding uranium transfers in the Energy and Water Development Appropriations Act, 2015. The Committee supports increased transparency in these transfers, and accordingly directs the Secretary to make available to the public all secretarial determinations under section 3112(d)(2)(B) of the USEC Privatization Act, including all related reports, analyses, data, and methodologies within 30 days after the notification has been submitted or the determination has been made. The Secretary is encouraged to develop and report recommendations to the Committee, within 90 days after the enactment of this act, to minimize the impact of uranium transfers on the domestic uranium mining, conversion, and enrichment industries, including any actions that would require new authority for the Secretary to implement. The Secretary should also consider

measures that would allow the Department to contract directly with domestic uranium industries to introduce uranium into the market.

SCIENCE

Appropriations, 2015 .....	\$5,071,000,000
Budget estimate, 2016 .....	5,339,794,000
House allowance .....	5,100,000,000
Committee recommendation .....	5,143,877,000

The Committee recommends \$5,143,877,000 for Science, a decrease of \$195,917,000 from the budget request.

*Distinguished Scientist Program.*—The Committee recommends directing up to \$2,000,000 to support the Department’s Distinguished Scientist Program, as authorized in section 5011 of 42 U.S.C. 16537 to promote scientific and academic excellence through collaborations between institutions of higher education and National laboratories.

*Brain Research through Advancing Innovative Neurotechnologies [BRAIN] Initiative.*—The Committee supports the involvement of the Office of Science and both the Interagency Working Group on Neuroscience and the National Brain Observation Group, and encourages the Department to collaborate with other agencies on the BRAIN Initiative. The national laboratory system possesses skills, tools, and methodologies to support the initiative, specifically through the user facilities in high performance computing and nanoscience supported by the Office of Science. Computational resources at the Oak Ridge National Laboratory are already being used to model and assess data to better understand brain processes. Additionally, extensive biomedical imaging resources and sensor technologies could be used to support this important effort. This complementary, multi-agency initiative is encouraged to take advantage of existing investments and infrastructure while engaging closely with the neuroscience community to accelerate our understanding of the brain.

ADVANCED SCIENTIFIC COMPUTING RESEARCH

The Committee recommends \$620,994,000 for Advanced Scientific Computing Research. The Committee believes its recommendation would allow the Department to develop and maintain world-class computing and network facilities for science and deliver the necessary research in applied mathematics, computer science, and advanced networking to support the Department’s missions.

The Committee strongly supports the exascale initiative, which is critical to maintaining our Nation’s global competitiveness and supporting our national security. Exascale computers will be capable of a thousand-fold increase in sustained performance over today’s petascale computers, which have been in operation since 2008. The Committee understands the goal of the Department’s Exascale Computing Initiative is to integrate efforts across industry, academia, and government to address the technical challenges of exascale computing, and to deploy by 2023, capable exascale computing systems. Additional research is needed to achieve practical exascale computing goals, and the Committee recommends including \$157,894,000 for exascale activities within the Office of Science.

The Committee directs, within funds available, the Secretary to broaden the Research Evaluation Prototype program to support the design and development of node, system and application prototypes. These efforts will support the development of four exascale nodes, three system architecture teams, and teams to develop initial plans for programming exascale applications. Multiple teams are necessary to adequately explore design options and to mitigate overall project risk. Overall industry investment in this area is significant, with billions of dollars in development costs for next generation high performance computing systems. To influence the trajectory of technology, the Department must partner early with domestic vendors, and support a significant share of these early design and development efforts.

The Committee also recommends \$104,317,000 for the Oak Ridge Leadership Computing Facility and \$86,000,000 for the National Energy Research Scientific Computing Center [NERSC] facility at Lawrence Berkeley National Laboratory. Funding is recommended to upgrade the NERSC infrastructure with power and cooling within the new Computational Research and Theory [CRT] building.

Within available funds, the Committee recommends \$38,000,000 for ESnet, the same as the budget request.

#### BASIC ENERGY SCIENCES

The Committee recommends \$1,844,300,000 for Basic Energy Sciences [BES]. Of these funds, \$1,644,000,000 is for research. Within available funds for operations and maintenance of scientific user facilities, the Committee recommends \$254,990,000 for high-flux neutron sources, which will allow for both Spallation Neutron Source [SNS] and High Flux Isotope Reactor [HFIR] to proceed with the most critical deferred repairs, replace outdated instruments, and make essential machine improvements. Within available funds, \$477,079,000 is provided to support near-optimal operations for the five BES light sources, including \$125,500,000 the first full year of operations for the newly constructed NSLS-II. The Committee recognizes the critical role that light sources play in the Nation's innovation ecosystem, and the growing reliance on them by U.S. researchers and industry. In light of increased international investment in these unique scientific resources and the consequences for U.S. innovation leadership, the Committee supports the Secretary's efforts to upgrade and renew these facilities across the full spectrum of x-ray capabilities. In addition to the operating budget request, which is fully funded, an additional \$10,000,000 is provided to accelerate completion of the Conceptual Design Report for the Second Target Station at the Spallation Neutron Source. Further, \$5,000,000 is provided for research and development for the Advanced Light Source Upgrade.

The Committee also recommends \$12,000,000 for exascale systems, the same as the crosscut request for fiscal year 2016. 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. As the Office of Science considers what user facilities are needed for future scientific research, the Secretary should have a balanced

portfolio of user facilities that gives researchers a breadth of ability to make scientific discoveries.

Innovative new materials are needed that catalyze the synthesis of ammonia without requiring an input of natural gas, in order to reduce the overall energy budget of fertilizer manufacturing, as well as ameliorate environmental concerns. Given the production cost and century-old processes, the Committee recommends within the funds provided \$3,000,000 for a competitive solicitation for universities to perform fundamental research toward the development of a new generation of nanostructured catalysts that can be used to synthesize fertilizer and ammonia without any secondary greenhouse gases.

The Committee recommends \$24,137,000 for the Batteries and Energy Storage Hub, the Joint Center for Energy Storage Research [JCESR]. The Committee is encouraged by the work of JCESR which was initiated in fiscal year 2013 and focuses on understanding the fundamental performance limitations for electrochemical energy storage to launch the next generation, beyond lithium-ion energy storage technologies relevant to both the electrical grid and transportation. The Committee supports the continued research and development for JCESR, to ensure the outcome of basic research leads to practical solutions that are competitive in the marketplace. The Committee commends JCESR for expanding its partnership of national laboratories, academia, and industry to additional members outside their region.

The Committee recommends \$15,000,000 for the Fuels from Sunlight Hub, the Joint Center for Artificial Photosynthesis [JCAP] which was established in fiscal year 2010, and extended for a second 5-year term at a reduced scope. During the renewal award period, JCAP will develop the knowledge, materials, and components needed for generation of transportation fuel from sunlight and carbon dioxide, with major emphasis on fundamental discovery science of carbon dioxide reduction. The Committee is aware of the positive changes evident in JCAP and the milestone-driven research plan, and looks forward to the capitalization on its scientific achievements, technology development, and leveraging of public investment to advance research efforts addressing critical needs in solar fuels development.

The Committee also recommends \$20,000,000 for the Experimental Program to Stimulate Competitive Research [EPSCoR]. The Committee recognizes the importance of supporting basic research, spanning the broad range of the Department's science and technology programs in States that have historically received disproportionate Federal research funding grants. The Committee encourages the Secretary to undertake additional efforts to include EPSCoR States in energy research activities related to the energy production and output contribution of their State.

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