

DEPARTMENT OF ENERGY

NATIONAL NUCLEAR SECURITY ADMINISTRATION

Federal Funds

FEDERAL SALARIES AND EXPENSES

For expenses necessary for Federal Salaries and Expenses in the National Nuclear Security Administration, \$496,400,000, to remain available until September 30, 2024, including official reception and representation expenses not to exceed \$17,000.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0313–0–1–053	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0010 Federal Salaries and Expenses	443	443	496
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	27	28	28
1021 Recoveries of prior year unpaid obligations	1		
1070 Unobligated balance (total)	28	28	28
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	443	443	496
1900 Budget authority (total)	443	443	496
1930 Total budgetary resources available	471	471	524
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	28	28	28
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	68	75	65
3010 New obligations, unexpired accounts	443	443	496
3020 Outlays (gross)	–433	–453	–508
3040 Recoveries of prior year unpaid obligations, unexpired	–1		
3041 Recoveries of prior year unpaid obligations, expired	–2		
3050 Unpaid obligations, end of year	75	65	53
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	68	75	65
3200 Obligated balance, end of year	75	65	53
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	443	443	496
Outlays, gross:			
4010 Outlays from new discretionary authority	352	370	415
4011 Outlays from discretionary balances	81	83	93
4020 Outlays, gross (total)	433	453	508
4180 Budget authority, net (total)	443	443	496
4190 Outlays, net (total)	433	453	508

Federal Salaries and Expenses.—This account provides the Federal salaries and other expenses of the National Nuclear Security Administration (NNSA) mission and mission support staff. The Federal Salaries and Expenses appropriation allows for the creation of a well-managed, inclusive, responsive, and accountable organization through the strategic management of human capital and greater integration of budget and performance data. Program direction for Naval Reactors is within that program's account, and program direction for Secure Transportation Asset is within the Weapons Activities account.

Object Classification (in millions of dollars)

Identification code 089–0313–0–1–053	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	245	245	251
11.3 Other than full-time permanent	2	2	3
11.5 Other personnel compensation	10	10	12
11.9 Total personnel compensation	257	257	266
12.1 Civilian personnel benefits	86	86	95

21.0 Travel and transportation of persons	2	2	2
23.1 Rental payments to GSA	1	1	1
23.3 Communications, utilities, and miscellaneous charges	1	1	2
25.1 Advisory and assistance services	33	33	41
25.2 Other services from non-Federal sources	6	6	9
25.3 Other goods and services from Federal sources	37	37	52
25.4 Operation and maintenance of facilities	18	18	24
26.0 Supplies and materials	1	1	2
32.0 Land and structures	1	1	2
99.9 Total new obligations, unexpired accounts	443	443	496

Employment Summary

Identification code 089–0313–0–1–053	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	1,742	1,808	1,934
2001 Reimbursable civilian full-time equivalent employment	2	2	2

NAVAL REACTORS

For Department of Energy expenses necessary for naval reactors activities to carry out the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition (by purchase, condemnation, construction, or otherwise) of real property, plant, and capital equipment, facilities, and facility expansion, \$2,081,445,000, to remain available until expended: Provided, That of such amount, \$58,525,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0314–0–1–053	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Naval Reactors (Direct)	1,583	1,600	2,091
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	15	30	23
1021 Recoveries of prior year unpaid obligations	5		
1070 Unobligated balance (total)	20	30	23
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	1,684	1,684	2,081
1120 Appropriations transferred to other acct [089–0319]	–91	–91	
1160 Appropriation, discretionary (total)	1,593	1,593	2,081
1930 Total budgetary resources available	1,613	1,623	2,104
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	30	23	13
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	1,077	1,186	1,202
3010 New obligations, unexpired accounts	1,583	1,600	2,091
3020 Outlays (gross)	–1,469	–1,584	–1,821
3040 Recoveries of prior year unpaid obligations, unexpired	–5		
3050 Unpaid obligations, end of year	1,186	1,202	1,472
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	1,077	1,186	1,202
3200 Obligated balance, end of year	1,186	1,202	1,472
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	1,593	1,593	2,081
Outlays, gross:			
4010 Outlays from new discretionary authority	666	796	1,040
4011 Outlays from discretionary balances	803	788	781
4020 Outlays, gross (total)	1,469	1,584	1,821
4180 Budget authority, net (total)	1,593	1,593	2,081
4190 Outlays, net (total)	1,469	1,584	1,821

NAVAL REACTORS—Continued

Naval Reactors.—This account funds all naval nuclear propulsion work, beginning with reactor technology development and design, continuing through reactor operation and maintenance, and ending with final disposition of naval spent nuclear fuel. These efforts ensure the safe and reliable operation of reactor plants in nuclear-powered submarines and aircraft carriers, enable continued technology development for future generations of nuclear-powered warships, and supports recapitalization of laboratory facilities and environmental remediation of legacy responsibilities. Due to the crucial nature of nuclear reactor work, Naval Reactors is a centrally managed organization. Federal employees oversee and set policies/procedures for developing new reactor plants and operating existing nuclear plants and the facilities that support these plants.

Object Classification (in millions of dollars)

Identification code 089–0314–0–1–053	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	34	34	37
11.3 Other than full-time permanent	1	1	2
11.5 Other personnel compensation	1	1	1
11.9 Total personnel compensation	36	36	40
12.1 Civilian personnel benefits	12	12	13
23.3 Communications, utilities, and miscellaneous charges	3	4	6
25.1 Advisory and assistance services	4	5	6
25.2 Other services from non-Federal sources	7	7	8
25.3 Other goods and services from Federal sources	4	4	5
25.4 Operation and maintenance of facilities	1,171	1,179	1,660
31.0 Equipment	10	10	.....
32.0 Land and structures	335	342	352
41.0 Grants, subsidies, and contributions	1	1	1
99.9 Total new obligations, unexpired accounts	1,583	1,600	2,091

Employment Summary

Identification code 089–0314–0–1–053	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	222	240	246

WEAPONS ACTIVITIES

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other incidental expenses necessary for atomic energy defense weapons activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, and the purchase of not to exceed one ambulance, for replacement only, \$16,486,298,000, to remain available until expended: Provided, That of such amount, \$130,070,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0240–0–1–053	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Weapons Activities (Direct)	14,643	16,117	16,586
0300 Subtotal, Weapons Activities	14,643	16,117	16,586
0799 Total direct obligations	14,643	16,117	16,586
0810 Weapons Activities (Reimbursable)	2,249	2,055	2,122
0900 Total new obligations, unexpired accounts	16,892	18,172	18,708
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	136	894	122
1021 Recoveries of prior year unpaid obligations	243	.....	.....

1033 Recoveries of prior year paid obligations	18	.....	.....
1070 Unobligated balance (total)	397	894	122
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	15,345	15,345	16,486
Spending authority from offsetting collections, discretionary:			
1700 Collected	2,036	2,055	2,100
1701 Change in uncollected payments, Federal sources	8	.....	.....
1750 Spending auth from offsetting collections, disc (total)	2,044	2,055	2,100
1900 Budget authority (total)	17,389	17,400	18,586
1930 Total budgetary resources available	17,786	18,294	18,708
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	894	122	.....

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	10,891	12,812	14,949
3010 New obligations, unexpired accounts	16,892	18,172	18,708
3020 Outlays (gross)	–14,728	–16,035	–16,877
3040 Recoveries of prior year unpaid obligations, unexpired	–243	.....	.....
3050 Unpaid obligations, end of year	12,812	14,949	16,780
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	–2,733	–2,741	–2,741
3070 Change in uncollected pymts, Fed sources, unexpired	–8	.....	.....
3090 Uncollected pymts, Fed sources, end of year	–2,741	–2,741	–2,741
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	8,158	10,071	12,208
3200 Obligated balance, end of year	10,071	12,208	14,039

Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross	17,389	17,400	18,586
Outlays, gross:			
4010 Outlays from new discretionary authority	6,293	6,816	7,287
4011 Outlays from discretionary balances	8,435	9,219	9,590
4020 Outlays, gross (total)	14,728	16,035	16,877
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	–1,962	–1,951	–1,994
4033 Non-Federal sources	–92	–104	–106
4040 Offsets against gross budget authority and outlays (total)	–2,054	–2,055	–2,100
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	–8	.....	.....
4053 Recoveries of prior year paid obligations, unexpired accounts	18	.....	.....
4060 Additional offsets against budget authority only (total)	10	.....	.....
4070 Budget authority, net (discretionary)	15,345	15,345	16,486
4080 Outlays, net (discretionary)	12,674	13,980	14,777
4180 Budget authority, net (total)	15,345	15,345	16,486
4190 Outlays, net (total)	12,674	13,980	14,777

Programs funded within the Weapons Activities appropriation support the Nation's current and future defense posture and its attendant nationwide infrastructure of science, technology, and engineering capabilities. Weapons Activities provides for the maintenance and refurbishment of nuclear weapons to continue sustained confidence in their safety, reliability, and performance; continued investment in scientific, engineering, and manufacturing capabilities to enable certification of the enduring nuclear weapons stockpile; and manufacture of nuclear weapon components. Weapons Activities also provides for continued maintenance and investment in the NNSA nuclear complex to be more responsive and cost effective. The major elements of the program include the following:

Stockpile Management.—Maintains a safe, secure, and effective nuclear weapons stockpile. Activities include extending the expected life of weapons; maintenance, surveillance, assessment, development, and program planning; providing safe and secure dismantlement of nuclear weapons and components; and providing sustainment of needed manufacturing capabilities and capacities, including process improvements and investments focused on increased efficiency of production operations. The FY 2023 Request also includes a new Nuclear Enterprise Assurance (NEA) subprogram, to prevent, detect, and mitigate adversarial subversion risks to the nuclear weapons stockpile and associated design, production, and testing capabilities.

Production Modernization.—Focuses on the production capabilities of nuclear weapons, including primaries, secondaries, and radiation cases, which are critical to weapon performance.

Stockpile Research, Technology, and Engineering.—Provides the foundation for science-based stockpile decisions, tools, and components; focuses on the most pressing investments the nuclear security enterprise requires to meet Department of Defense warhead needs and schedules; and enables assessment and certification capabilities used throughout the enterprise. Provides the knowledge and expertise needed to maintain confidence in the nuclear weapons stockpile without additional explosive nuclear testing.

Infrastructure and Operations.—Provides the funding required to operate and maintain NNSA facilities and support underlying infrastructure and capabilities at the level necessary to deliver mission results in a safe and secure manner. Modernizes NNSA infrastructure through recapitalization and line-item construction projects.

Defense Nuclear Security.—Provides protection for NNSA personnel, facilities, nuclear weapons, and materials from a full spectrum of threats, ranging from minor security incidents to acts of terrorism. Provides funding for key security program areas at all NNSA facilities.

Secure Transportation Asset.—Provides for the safe, secure transport of nuclear weapons, weapon components, and special nuclear materials to meet mission requirements. The Program Direction subprogram provides for the secure transportation workforce, including the Federal agents.

Information Technology and Cybersecurity.—Provides information technology (IT) and cybersecurity services and solutions for the Nuclear Security Enterprise to accomplish its mission goals and objectives. These services and solutions include commodity IT, unified communications, collaboration tools, mission applications, and cybersecurity oversight and tools.

Object Classification (in millions of dollars)

Identification code 089-0240-0-1-053	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	49	51	54
11.5 Other personnel compensation	10	12	15
11.9 Total personnel compensation	59	63	69
12.1 Civilian personnel benefits	30	31	34
21.0 Travel and transportation of persons	6	6	8
23.1 Rental payments to GSA	52	53	56
23.3 Communications, utilities, and miscellaneous charges	22	22	24
25.1 Advisory and assistance services	316	376	389
25.2 Other services from non-Federal sources	574	622	680
25.3 Other goods and services from Federal sources	34	35	36
25.4 Operation and maintenance of facilities	10,486	11,731	11,384
25.5 Research and development contracts	127	144	154
25.6 Medical care	5	5	6
25.7 Operation and maintenance of equipment	4	4	6
26.0 Supplies and materials	13	13	15
31.0 Equipment	729	745	924
32.0 Land and structures	2,099	2,176	2,682
41.0 Grants, subsidies, and contributions	87	91	119
99.0 Direct obligations	14,643	16,117	16,586
99.0 Reimbursable obligations	2,249	2,055	2,122
99.9 Total new obligations, unexpired accounts	16,892	18,172	18,708

Employment Summary

Identification code 089-0240-0-1-053	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	513	574	572

acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$2,346,257,000, to remain available until expended.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0309-0-1-053	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Defense Nuclear Nonproliferation (Direct)	2,255	2,360	2,383
0100 Subtotal, obligations by program activity	2,255	2,360	2,383
0799 Total direct obligations	2,255	2,360	2,383
0801 Global material security	6	.....	.....
0899 Total reimbursable obligations	6	.....	.....
0900 Total new obligations, unexpired accounts	2,261	2,360	2,383
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	451	467	367
1021 Recoveries of prior year unpaid obligations	19	.....	.....
1033 Recoveries of prior year paid obligations	5	.....	.....
1070 Unobligated balance (total)	475	467	367
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	2,260	2,260	2,346
1120 Appropriations transferred to other accts [089-0222]	-13	.....	.....
1160 Appropriation, discretionary (total)	2,247	2,260	2,346
Spending authority from offsetting collections, discretionary:			
1700 Collected	6	.....	.....
1900 Budget authority (total)	2,253	2,260	2,346
1930 Total budgetary resources available	2,728	2,727	2,713
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	467	367	330
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	1,463	1,725	1,800
3010 New obligations, unexpired accounts	2,261	2,360	2,383
3020 Outlays (gross)	-1,980	-2,285	-2,254
3040 Recoveries of prior year unpaid obligations, unexpired	-19	.....	.....
3050 Unpaid obligations, end of year	1,725	1,800	1,929
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	1,463	1,725	1,800
3200 Obligated balance, end of year	1,725	1,800	1,929
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	2,253	2,260	2,346
Outlays, gross:			
4010 Outlays from new discretionary authority	933	1,085	1,126
4011 Outlays from discretionary balances	1,047	1,200	1,128
4020 Outlays, gross (total)	1,980	2,285	2,254
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources	-5	.....	.....
4034 Offsetting governmental collections	-6	.....	.....
4040 Offsets against gross budget authority and outlays (total)	-11	.....	.....
Additional offsets against gross budget authority only:			
4053 Recoveries of prior year paid obligations, unexpired accounts	5	.....	.....
4070 Budget authority, net (discretionary)	2,247	2,260	2,346
4080 Outlays, net (discretionary)	1,969	2,285	2,254
4180 Budget authority, net (total)	2,247	2,260	2,346
4190 Outlays, net (total)	1,969	2,285	2,254

The Defense Nuclear Nonproliferation (DNN) and the Nuclear Counterterrorism and Incident Response (NCTIR) programs are central to the U.S. strategy to reduce global nuclear security risks. These two programs provide policy and technical leadership to prevent or limit the spread of materials, technology, and expertise related to weapons of mass destruction (WMD); develop technologies that detect the proliferation of WMD worldwide; secure or eliminate inventories of nuclear weapons-related materials and

DEFENSE NUCLEAR NONPROLIFERATION

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other incidental expenses necessary for defense nuclear nonproliferation activities, in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the ac-

DEFENSE NUCLEAR NONPROLIFERATION—Continued

infrastructure; and ensure rapid, effective responses to nuclear or radiological incidents and accidents domestically and overseas.

The major elements of the appropriation account include the following:

Material Management and Minimization (M³).—M³ programs reduce and, when possible, eliminate weapons-usable nuclear material around the world to achieve permanent threat reduction. This includes minimizing the civilian use of highly enriched uranium (HEU); removing or eliminating nuclear material internationally; and disposing of excess nuclear material in the United States.

Global Material Security (GMS).—GMS programs prevent terrorists and other actors from obtaining nuclear and radioactive materials to use in an improvised nuclear device or a radiological dispersal device by working domestically and with partner countries to improve the security of vulnerable materials and facilities and to build sustainable capacity to deter, detect, and investigate illicit trafficking of these materials. GMS works with countries in bilateral partnerships, and with and through multilateral partners such as the International Atomic Energy Agency (IAEA) and International Criminal Police Organization (Interpol).

Nonproliferation and Arms Control (NPAC).—NPAC programs strengthen nonproliferation and arms control regimes through technology and tool development combined with policy innovation and implementation to prevent proliferation, support peaceful nuclear uses, and enable detection, monitoring and verification missions. NPAC builds the capacity of the IAEA and partner countries to implement international safeguards obligations; leads domestic and international programs implementing U.S. export control obligations; supports the negotiation and implementation of agreements and associated monitoring regimes; and develops approaches and strategies to address emerging nonproliferation and arms control challenges and opportunities.

Defense Nuclear Nonproliferation Research and Development (DNN R&D).—DNN R&D drives the innovation of national and multi-lateral technical capabilities to detect nuclear detonations; foreign nuclear weapons activities; and the presence, movement, or diversion of special nuclear materials. The program also sustains and develops foundational nonproliferation technical competencies that ensure the technical agility needed to support a broad spectrum of U.S. nonproliferation missions and to anticipate threats and build the human capacity to support these missions into the future. DNN R&D leverages the unique facilities and scientific skills of the Department of Energy, academia, and industry to perform research, conduct technology demonstrations, develop prototypes, and produce and deliver sensors for integration into operational systems.

NNSA Bioassurance Program.—The NNSA Bioassurance Program establishes a national security R&D program to anticipate and detect global biological threats and broaden DOE's role in national biodefense. The NNSA contribution complements DOE's support of other departments and U.S. biodefense strategies and plans. The NNSA Bioassurance program will work in close coordination with the Office of Science (DOE/SC) by integrating NNSA's high-security work with DOE/SC's supported "open" science model. The Program will provide the full spectrum of bioassurance capabilities, informed by national security expertise that is drawn from parallel and analogue work on nuclear threats, risks, export controls and licensing, nonproliferation, detection, and verification.

Nonproliferation Construction.—The Nonproliferation Construction Program supports the construction of projects for the dilute and dispose strategy to fulfill the United States' commitment to dispose of 34 metric tons of surplus U.S. weapon-grade plutonium and remove plutonium from the state of South Carolina. The request will complete the final design review and continue the activities required to achieve CD-2/3, *Approval of Performance Baseline and Start of Construction*, to initiate construction on the Surplus Plutonium Disposition (SPD) project. Using available prior year balances, physical termination activities for the Mixed Oxide Fuel Fabrication project were completed in FY 2021 and closeout activities will be completed in FY 2022.

Nuclear Counterterrorism and Incident Response (NCTIR).—The NCTIR Program applies the unique technical expertise of NNSA's nuclear security enterprise to prepare for, prevent, respond to, mitigate, and recover from nuclear or radiological incidents and accidents worldwide. To that end, NCTIR provides scientific understanding of nuclear threat devices, including potential terrorist and proliferant state nuclear capabilities; informs U.S. and international threat reduction policies and regulations; sustains Nuclear Emergency Support Team (NEST) readiness to respond to nuclear and radiological incidents and accidents at home and overseas; provides targeted training to domestic and international partners on nuclear and radiological emergency preparedness and response; and delivers expert analysis and technical capabilities to support national counterproliferation efforts. NCTIR also provides both the structure and processes to ensure a comprehensive and integrated approach to emergency management and continuity of operations, thereby safeguarding the health and safety of workers and the public, protecting the environment, and enhancing the resilience of the Department and the Nation.

Object Classification (in millions of dollars)

Identification code 089–0309–0–1–053	2021 actual	2022 est.	2023 est.
Direct obligations:			
25.1 Advisory and assistance services	161	161	161
25.2 Other services from non-Federal sources	112	112	112
25.3 Other goods and services from Federal sources	7	7	7
25.4 Operation and maintenance of facilities	1,724	1,825	1,848
25.5 Research and development contracts	1	1	1
25.7 Operation and maintenance of equipment	1	1	1
31.0 Equipment	91	91	91
32.0 Land and structures	139	139	139
41.0 Grants, subsidies, and contributions	19	19	19
99.0 Direct obligations	2,255	2,356	2,379
99.0 Reimbursable obligations	6	4	4
99.9 Total new obligations, unexpired accounts	2,261	2,360	2,383

ENVIRONMENTAL AND OTHER DEFENSE ACTIVITIES

Federal Funds

DEFENSE ENVIRONMENTAL CLEANUP

(INCLUDING TRANSFER OF FUNDS)

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other expenses necessary for atomic energy defense environmental cleanup activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$6,914,532,000, to remain available until expended, of which \$417,000,000 shall be transferred to the "Uranium Enrichment Decontamination and Decommissioning Fund": Provided, That of such amount, \$317,002,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0251–0–1–053	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Closure Sites	4	5	4
0002 Hanford Site	954	926	818
0003 River Protection - Tank Farm	788	784	806
0004 River Protection - Waste Treatment Plant	906	861	799
0006 Idaho	402	434	379
0007 NNSA Sites	303	328	407
0008 Oak Ridge	442	475	487
0009 Savannah River	1,503	1,532	1,572
0010 Waste Isolation Pilot Plant	406	413	456
0011 Program Support	37	13	103
0012 Safeguards & Security	321	321	310
0013 Technology Development & Demonstration	32	30	25
0014 Program Direction	300	289	317

0015	UED&D Fund Contribution			417
0020	SPRU		15	15
0900	Total new obligations, unexpired accounts	6,398	6,426	6,915
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	451	548	560
1021	Recoveries of prior year unpaid obligations	38	12	12
1033	Recoveries of prior year paid obligations	32		
1070	Unobligated balance (total)	521	560	572
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	6,426	6,426	6,915
1120	Appropriations transferred to other accts [089–0222]	–1		
1160	Appropriation, discretionary (total)	6,425	6,426	6,915
1930	Total budgetary resources available	6,946	6,986	7,487
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	548	560	572
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	3,031	3,278	2,516
3010	New obligations, unexpired accounts	6,398	6,426	6,915
3020	Outlays (gross)	–6,111	–7,176	–7,529
3040	Recoveries of prior year unpaid obligations, unexpired	–38	–12	–12
3041	Recoveries of prior year unpaid obligations, expired	–2		
3050	Unpaid obligations, end of year	3,278	2,516	1,890
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	3,031	3,278	2,516
3200	Obligated balance, end of year	3,278	2,516	1,890
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	6,425	6,426	6,915
Outlays, gross:				
4010	Outlays from new discretionary authority	3,493	4,498	4,966
4011	Outlays from discretionary balances	2,618	2,678	2,563
4020	Outlays, gross (total)	6,111	7,176	7,529
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4033	Non-Federal sources	–32		
4040	Offsets against gross budget authority and outlays (total)	–32		
Additional offsets against gross budget authority only:				
4053	Recoveries of prior year paid obligations, unexpired accounts	32		
4060	Additional offsets against budget authority only (total)	32		
4070	Budget authority, net (discretionary)	6,425	6,426	6,915
4080	Outlays, net (discretionary)	6,079	7,176	7,529
4180	Budget authority, net (total)	6,425	6,426	6,915
4190	Outlays, net (total)	6,079	7,176	7,529

The Defense Environmental Cleanup program is responsible for protecting human health and the environment by identifying and reducing risks, as well as managing waste and facilities, at sites where the Department carried out defense-related nuclear research and production activities. Those activities resulted in radioactive, hazardous, and mixed-waste contamination requiring remediation, stabilization, decontamination and decommissioning, or some other type of cleanup action. The Budget displays the cleanup program by site and activity.

Closure Sites.—Funds post-closure administration costs after the physical completion of cleanup, including costs for contract closeout and litigation support.

Hanford Site.—Funds cleanup and environmental restoration to protect the Columbia River and surrounding communities. The Hanford site cleanup is managed by two Environmental Management (EM) site offices: the Richland Operations Office and the Office of River Protection.

The Richland Office is responsible for cleanup activities on most of the geographic area making up the Hanford site. The primary cleanup focus is decontamination and decommissioning legacy facilities and characterizing and treating contaminated groundwater.

The Office of River Protection is responsible for the safe storage, retrieval, treatment, immobilization, and disposal of approximately 56 million gallons of radioactive waste stored in 177 underground tanks. It is also responsible

for related operation, maintenance, engineering, and construction activities, including those connected to the Waste Treatment and Immobilization Plant being built to solidify the liquid tank waste in a glass form that can be safely stored.

Idaho.—Funds retrieval, treatment, and disposition of nuclear and hazardous wastes and spent nuclear fuel, and legacy site cleanup activities.

NNSA Sites.—Funds the safe and efficient cleanup of the environmental legacy of past operations at National Nuclear Security Administration (NNSA) sites including Nevada National Security Site, Sandia National Laboratories, Lawrence Livermore National Laboratory, Los Alamos National Laboratory and the Separations Process Research Unit. The cleanup strategy follows a risk-informed approach that focuses first on those soil and groundwater contaminant plumes and sources that are the greatest contributors to risk. The overall goal is first to ensure that risks to the public and workers are controlled, then to clean up soil and groundwater using a risk-informed methodology. NNSA is responsible for long-term stewardship of its sites after physical cleanup is completed. Los Alamos legacy cleanup is managed by the EM Los Alamos field office. Funding is included to support the deactivation and decommissioning (D&D) of specific high-risk excess facilities by the Environmental Management program for Lawrence Livermore and Los Alamos National Laboratories.

Oak Ridge.—Funds defense-related cleanup of the three facilities that make up the Oak Ridge site: the East Tennessee Technology Park, the Oak Ridge National Laboratory, and the Y-12 Plant. The overall cleanup strategy is based on surface water considerations, encompassing five distinct watersheds that feed the adjacent Clinch River.

Savannah River Site.—Funds the safe stabilization, treatment, and disposition of legacy nuclear materials, spent nuclear fuel, and waste at the Savannah River site. Key activities include operating the Defense Waste Processing Facility, which is solidifying the high activity liquid waste contained in underground storage tanks, and operation of the Salt Waste Processing Facility, which separates various tank waste components and treats and disposes the low activity liquid waste stream.

Waste Isolation Pilot Plant.—Funds the world's first permitted deep geologic repository for the permanent disposal of radioactive waste, and the Nation's only disposal site for defense-generated transuranic waste. The Waste Isolation Pilot Plant, managed by the Carlsbad Field Office, is an operating facility, supporting the disposal of transuranic waste from waste generator and storage sites across the DOE complex. The Waste Isolation Pilot Plant is crucial to the Department of Energy (DOE) completing its cleanup and closure mission.

Program Direction.—Funds the Federal workforce responsible for the overall direction and administrative support of the EM program, including both Headquarters and field personnel.

Program Support.—Funds management and direction for various cross-cutting EM and DOE initiatives such as science, technology, engineering, and mathematics activities at Minority Serving Institutions and investments in historically underserved communities to support program needs, inter-governmental activities, and analyses and integration activities across DOE in a consistent, responsible, and efficient manner.

Safeguards and Security.—Funds activities to protect against unauthorized access, theft, diversion, loss of custody or destruction of DOE assets, and hostile acts that could cause adverse impacts to fundamental national security or the health and safety of DOE and contractor employees, the public or the environment.

Technology Development and Deployment.—Funds projects managed through Headquarters to address the immediate, near- and long-term technology needs identified by the EM sites, enabling them to accelerate their cleanup schedules, treat orphaned wastes, improve worker safety, and provide technical foundations for the sites' cleanup decisions. These projects focus on maturing and deploying the technologies necessary to accelerate tank waste processing, treatment, and waste loading.

DEFENSE ENVIRONMENTAL CLEANUP—Continued

Object Classification (in millions of dollars)

Identification code 089-0251-0-1-053	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	158	159	171
11.3 Other than full-time permanent	2	2	2
11.5 Other personnel compensation	5	5	5
11.9 Total personnel compensation	165	166	178
12.1 Civilian personnel benefits	59	59	64
21.0 Travel and transportation of persons	1	1	1
23.1 Rental payments to GSA	10	10	11
23.2 Rental payments to others	1	1	1
23.3 Communications, utilities, and miscellaneous charges	14	14	15
25.1 Advisory and assistance services	825	829	892
25.2 Other services from non-Federal sources	439	441	475
25.3 Other goods and services from Federal sources	47	47	51
25.4 Operation and maintenance of facilities	3,593	3,609	3,884
25.5 Research and development contracts	4	4	4
25.6 Medical care	16	16	17
25.7 Operation and maintenance of equipment	2	2	2
26.0 Supplies and materials	1	1	1
31.0 Equipment	99	99	107
32.0 Land and structures	1,067	1,072	1,153
41.0 Grants, subsidies, and contributions	55	55	59
99.9 Total new obligations, unexpired accounts	6,398	6,426	6,915

Employment Summary

Identification code 089-0251-0-1-053	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	1,213	1,275	1,375

OTHER DEFENSE ACTIVITIES

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other expenses, necessary for atomic energy defense, other defense activities, and classified activities, in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$978,351,000, to remain available until expended: Provided, That of such amount, \$331,781,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0243-0-1-999	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Other Defense Activities (Direct)	954	920	988
0100 Subtotal, Direct program activities	954	920	988
0799 Total direct obligations	954	920	988
0810 Other Defense Activities (Reimbursable)	2,008	2,008	2,011
0819 Reimbursable program activities, subtotal	2,008	2,008	2,011
0900 Total new obligations, unexpired accounts	2,962	2,928	2,999
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	56	61	20
1010 Unobligated balance transfer to other accts [047-0616]		-1	
1021 Recoveries of prior year unpaid obligations	105		
1033 Recoveries of prior year paid obligations	1		
1070 Unobligated balance (total)	162	60	20
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	920	920	978
Spending authority from offsetting collections, discretionary:			
1700 Collected	1,818	1,968	2,011
1701 Change in uncollected payments, Federal sources	123		
1750 Spending auth from offsetting collections, disc (total)	1,941	1,968	2,011

1900 Budget authority (total)	2,861	2,888	2,989
1930 Total budgetary resources available	3,023	2,948	3,009
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	61	20	10

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	2,052	2,124	2,166
3010 New obligations, unexpired accounts	2,962	2,928	2,999
3020 Outlays (gross)	-2,779	-2,886	-3,521
3040 Recoveries of prior year unpaid obligations, unexpired	-105		
3041 Recoveries of prior year unpaid obligations, expired	-6		
3050 Unpaid obligations, end of year	2,124	2,166	1,644
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	-1,563	-1,603	-1,603
3070 Change in uncollected pymts, Fed sources, unexpired	-123		
3071 Change in uncollected pymts, Fed sources, expired	83		
3090 Uncollected pymts, Fed sources, end of year	-1,603	-1,603	-1,603
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	489	521	563
3200 Obligated balance, end of year	521	563	41

Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross	2,861	2,888	2,989
Outlays, gross:			
4010 Outlays from new discretionary authority	1,207	1,517	1,579
4011 Outlays from discretionary balances	1,572	1,369	1,942
4020 Outlays, gross (total)	2,779	2,886	3,521
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	-1,793	-1,887	-1,928
4033 Non-Federal sources	-104	-81	-83
4040 Offsets against gross budget authority and outlays (total)	-1,897	-1,968	-2,011
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	-123		
4052 Offsetting collections credited to expired accounts	78		
4053 Recoveries of prior year paid obligations, unexpired accounts	1		
4060 Additional offsets against budget authority only (total)	-44		
4070 Budget authority, net (discretionary)	920	920	978
4080 Outlays, net (discretionary)	882	918	1,510
4180 Budget authority, net (total)	920	920	978
4190 Outlays, net (total)	882	918	1,510

Environment, Health, Safety and Security Mission Support.—The program supports the Department's health, safety, environment, and security programs to enhance productivity while maintaining the highest standards of safe operation, protection of national assets, and environmental sustainability. The program functions include: policy and guidance development and technical assistance; analysis of health, safety, environment, and security performance; nuclear safety; domestic and international health studies; medical screening programs for former workers; Energy Employee Occupational Illness Compensation Program Act support; quality assurance programs; interface with the Defense Nuclear Facilities Safety Board; national security information programs; and security for the Department's facilities and personnel in the National Capital Area.

Enterprise Assessments.—The program supports the Department's independent assessments of security, cybersecurity, emergency management, and environment, safety and health performance; enforcement of worker safety and health, nuclear safety; and classified information security regulations; and implementation of security and safety professional development and training programs.

Specialized Security Activities.—The program supports national security related analyses requiring highly specialized skills and capabilities.

Legacy Management.—The program supports long-term stewardship activities (e.g., groundwater monitoring, disposal cell maintenance, records management, asset management, community outreach and management of natural resources) at sites where active remediation has been completed. In FY 2023, the program will also support strengthening Environmental Justice activities. Lastly, Legacy Management supports post-retirement benefits for former contractor employees.

Hearings and Appeals.—The Office of Hearings and Appeals adjudicates personnel security cases, as well as whistleblower reprisal complaints filed by DOE contractor employees. The office is the appeal authority in various other areas, including Freedom of Information Act and Privacy Act appeals. In addition, the office decides requests for exception from DOE orders, rules, regulations, and is responsible for the DOE's alternative dispute resolution function.

Defense-Related Administrative Support.—Obligations are included for defense-related administrative support that serves to offset costs attributable to the defense-related programs within the Department of Energy that utilize the department-wide services funded by the Departmental Administration account. These include accounting and information technology department-wide services.

Object Classification (in millions of dollars)

Identification code 089–0243–0–1–999	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	122	125	125
11.3 Other than full-time permanent	2	2	2
11.5 Other personnel compensation	5	5	5
11.9 Total personnel compensation	129	132	132
12.1 Civilian personnel benefits	45	46	46
21.0 Travel and transportation of persons	1	1	1
23.1 Rental payments to GSA	1	1	1
23.2 Rental payments to others	2	2	2
23.3 Communications, utilities, and miscellaneous charges	7	7	7
25.1 Advisory and assistance services	348	310	360
25.2 Other services from non-Federal sources	56	56	56
25.3 Other goods and services from Federal sources	44	44	44
25.4 Operation and maintenance of facilities	276	276	294
25.7 Operation and maintenance of equipment	4	4	4
26.0 Supplies and materials	1	1	1
31.0 Equipment	10	10	10
32.0 Land and structures	3	3	3
41.0 Grants, subsidies, and contributions	27	27	27
99.0 Direct obligations	954	920	988
99.0 Reimbursable obligations	2,008	2,008	2,011
99.9 Total new obligations, unexpired accounts	2,962	2,928	2,999

Employment Summary

Identification code 089–0243–0–1–999	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	871	871	871

DEFENSE NUCLEAR WASTE DISPOSAL

Program and Financing (in millions of dollars)

Identification code 089–0244–0–1–053	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Defense Nuclear Waste Disposal (Direct)	1	1	.....
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	2	1	.....
1930 Total budgetary resources available	2	1	.....
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	1	.....	.....
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	3	3	3
3010 New obligations, unexpired accounts	1	1	.....
3020 Outlays (gross)	–1	–1	–1
3050 Unpaid obligations, end of year	3	3	2
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	3	3	3
3200 Obligated balance, end of year	3	3	2

Budget authority and outlays, net:

Discretionary:			
Outlays, gross:			
4011 Outlays from discretionary balances	1	1	1
4180 Budget authority, net (total) .....	.....	.....	.....
4190 Outlays, net (total)	1	1	1

The Defense Nuclear Waste Disposal appropriation was established by the Congress as part of the 1993 Energy and Water Development Appropriation (P.L. 102–377), in lieu of payment from the Department of Energy (DOE) into the Nuclear Waste Fund for activities related to the disposal of defense high-level waste from DOE's atomic energy defense activities.

Object Classification (in millions of dollars)

Identification code 089–0244–0–1–053	2021 actual	2022 est.	2023 est.
Direct obligations:			
25.1 Advisory and assistance services .....	.....	1	.....
25.2 Other services from non-Federal sources	1	.....	.....
99.9 Total new obligations, unexpired accounts	1	1	.....

ENERGY PROGRAMS

Federal Funds

SCIENCE

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for science activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, and purchase of not more than 35 passenger motor vehicles, including one ambulance, for replacement only, \$7,799,211,000, to remain available until expended: Provided, That of such amount, \$211,211,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0222–0–1–251	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Basic Energy Sciences	2,221	2,245	2,420
0002 Advanced Scientific Computing Research	985	1,015	1,069
0003 Biological and Environmental Research	728	753	904
0004 High Energy Physics	1,028	1,029	1,122
0005 Nuclear Physics	681	635	739
0006 Fusion Energy Sciences	649	672	723
0007 Science Laboratories Infrastructure	263	240	255
0008 Science Program Direction	193	192	211
0009 Workforce Development for Teachers and Scientists	29	29	41
0010 Safeguards and Security	121	121	190
0011 Small Business Innovation Research	284	.....	.....
0012 Small Business Technology Transfer	38	.....	.....
0013 Isotope R&D and Production .....	.....	78	98
0014 Accelerator R&D and Production .....	.....	17	27
0799 Total direct obligations	7,220	7,026	7,799
0801 Science (Reimbursable)	622	624	624
0900 Total new obligations, unexpired accounts	7,842	7,650	8,423
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	66	59	49
1021 Recoveries of prior year unpaid obligations	93	.....	.....
1070 Unobligated balance (total)	159	59	49
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	7,026	7,026	7,799
1121 Appropriations transferred from other acct [089–0319] ...	19	.....	.....
1121 Appropriations transferred from other acct [089–0309] ...	13	.....	.....
1121 Appropriations transferred from other acct [089–0213] ...	18	.....	.....
1121 Appropriations transferred from other acct [089–0251] ...	1	.....	.....
1121 Appropriations transferred from other acct [089–2250] ...	1	.....	.....

SCIENCE—Continued
Program and Financing—Continued

Identification code 089-0222-0-1-251		2021 actual	2022 est.	2023 est.
1121	Appropriations transferred from other acct [089-0321]	80	.....	.....
1121	Appropriations transferred from other acct [089-0318]	5	.....	.....
1160	Appropriation, discretionary (total)	7,163	7,026	7,799
	Spending authority from offsetting collections, discretionary:			
1700	Collected	452	614	628
1701	Change in uncollected payments, Federal sources	127	.....	.....
1750	Spending auth from offsetting collections, disc (total)	579	614	628
1900	Budget authority (total)	7,742	7,640	8,427
1930	Total budgetary resources available	7,901	7,699	8,476
	Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year	59	49	53
Change in obligated balance:				
	Unpaid obligations:			
3000	Unpaid obligations, brought forward, Oct 1	8,327	8,810	7,877
3010	New obligations, unexpired accounts	7,842	7,650	8,423
3020	Outlays (gross)	-7,265	-8,583	-8,762
3040	Recoveries of prior year unpaid obligations, unexpired	-93	.....	.....
3041	Recoveries of prior year unpaid obligations, expired	-1	.....	.....
3050	Unpaid obligations, end of year	8,810	7,877	7,538
	Uncollected payments:			
3060	Uncollected pymts, Fed sources, brought forward, Oct 1	-519	-562	-562
3070	Change in uncollected pymts, Fed sources, unexpired	-127	.....	.....
3071	Change in uncollected pymts, Fed sources, expired	84	.....	.....
3090	Uncollected pymts, Fed sources, end of year	-562	-562	-562
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	7,808	8,248	7,315
3200	Obligated balance, end of year	8,248	7,315	6,976
Budget authority and outlays, net:				
	Discretionary:			
4000	Budget authority, gross	7,742	7,640	8,427
	Outlays, gross:			
4010	Outlays from new discretionary authority	2,257	2,691	2,967
4011	Outlays from discretionary balances	5,008	5,892	5,795
4020	Outlays, gross (total)	7,265	8,583	8,762
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	-362	-377	-388
4033	Non-Federal sources	-174	-237	-240
4040	Offsets against gross budget authority and outlays (total)	-536	-614	-628
	Additional offsets against gross budget authority only:			
4050	Change in uncollected pymts, Fed sources, unexpired	-127	.....	.....
4052	Offsetting collections credited to expired accounts	84	.....	.....
4060	Additional offsets against budget authority only (total)	-43	.....	.....
4070	Budget authority, net (discretionary)	7,163	7,026	7,799
4080	Outlays, net (discretionary)	6,729	7,969	8,134
4180	Budget authority, net (total)	7,163	7,026	7,799
4190	Outlays, net (total)	6,729	7,969	8,134

The Office of Science (SC) is the nation's largest Federal supporter of basic research in the physical sciences. The SC portfolio has two principal thrusts: direct support of scientific research and direct support of the design, development, construction, and operation of unique, open-access scientific user facilities. SC initiates three new research initiatives to include Energy Earthshots; Funding for Accelerated, Inclusive Research (FAIR); and Accelerate Innovations in Emerging Technologies (Accelerate). The Energy Earthshots initiative will support both small group awards and larger center awards through the Energy Earthshot Research Centers. These centers will bring together multi-investigator, multi-disciplinary teams to address key research challenges at the interface between basic research and applied research and development activities. The FAIR initiative, will target efforts to increase participation and retention of individuals from underrepresented groups in SC research activities. The Accelerate initiative will support scientific research to accelerate the transition of science advances to energy technologies. The request also supports ongoing investments in priority areas including clean energy, microelectronics, critical materials, quantum

information science (QIS), artificial intelligence (AI) and machine learning (ML), and exascale computing.

Advanced Scientific Computing Research.—The Advanced Scientific Computing Research (ASCR) program supports research in applied mathematics and computer science; delivers the most advanced computational scientific applications in partnership with disciplinary science; advances computing and networking capabilities; and develops future generations of computing hardware and tools for science, in partnership with the research community and U.S. industry. The strategy to accomplish this has three thrusts: 1) developing, deploying, and maintaining world-class computing and network facilities for science; 2) advancing research in applied mathematics, computer science and advanced networking; and 3) partnering with other DOE and SC programs to advance the use of its high performance computers to drive scientific advances for the Nation in areas such as clean energy and earth systems modeling. The program supports the development, maintenance, and operation of large high-performance computing and network facilities, including the Leadership Computing Facilities at Oak Ridge and Argonne National Laboratories, the National Energy Research Scientific Computing Facility at Lawrence Berkeley National Laboratory, and the Energy Sciences Network.

SC and the National Nuclear Security Administration (NNSA) continue to partner on the Department's Exascale Computing Initiative (ECI) to overcome key exascale challenges in parallelism, energy efficiency, and reliability, with deployment of the Nation's first exascale system in calendar year 2021 and additional exascale systems in calendar years 2022 and 2023. The ECI focuses on delivering advanced simulation through an exascale-capable computing program, emphasizing sustained performance in science and national security mission applications and increased convergence between exascale, AI, and large-data analytic computing.

Basic Energy Sciences.—The Basic Energy Sciences (BES) program supports fundamental research to understand, predict, and ultimately control matter and energy at the electronic, atomic, and molecular levels to provide the foundations for new energy technologies and to support the Department of Energy (DOE) missions in energy, environment, and national security. The research disciplines that BES supports—condensed matter and materials physics, chemistry, geosciences, and aspects of biosciences are those that discover new materials and design new chemical processes that touch virtually every important aspect of energy resources, production, conversion, transmission, storage, efficiency, and waste mitigation.

BES also manages a research portfolio in accelerator physics, x-ray and neutron detectors, and x-ray-optics to explore technology options for developing the next generations of x-ray and neutron sources. On behalf of DOE, BES manages the DOE Established Program to Stimulate Competitive Research (EPSCoR), which supports early-stage energy research in U.S. states and territories that are historically under-represented in federally-supported research.

BES supports twelve scientific user facilities consisting of a complementary set of intense x-ray sources, neutron sources, and research centers for nanoscale science. BES facilities probe materials and chemical systems with ultrahigh spatial, temporal, and energy resolutions to investigate the critical functions of matter and tackle some of the most challenging science questions and urgent national priorities such as the fight against COVID-19. These facilities undergo continual development and upgrade of capabilities, including fabricating new X-ray and neutron experimental stations, improving core facilities, and providing new stand-alone instruments and capabilities. BES also manages construction projects to build new or upgrade existing facilities to provide world-leading tools and instruments to the scientific community and maintain U.S. leadership in the physical sciences.

Biological and Environmental Research.—The Biological and Environmental Research (BER) program supports fundamental research to understand complex biological, biogeochemical, and physical principles of natural systems at scales extending from the genome of microbes and plants to the environmental and ecological processes at the scale of the planet

Earth. BER's support of basic research will contribute to a future of stable, reliable, and resilient energy sources and infrastructures, that will lead to climate solutions, strengthen economic prosperity and assure environmental justice. BER research in biological systems science uses approaches such as genome sequencing, secure biodesign, proteomics, metabolomics, structural biology, and high-resolution imaging and characterization. Integration of this experimental biological information into computational models for iterative testing and validation advances a predictive understanding of biological systems for use in secure, clean, affordable, and reliable energy for adaptation to industry. New efforts in clean energy bio-based materials and foundational bioenergy research underpin new biotechnology and the bioeconomy.

BER research in Earth and environmental systems science is focused on scientific analysis and modeling of the sensitivity and uncertainty of Earth system predictions to atmospheric, cryospheric, oceanic, and biogeochemical processes, with continued support of the Energy Exascale Earth System Model. New Urban Integrated Field Laboratories combine modeling and observations of emerging energy technologies in urban regions, enabling the evaluation of the societal and environmental impacts of current and future energy policies. Augmented planning and implementation continues for a Climate Resilience Center effort, facilitating translations of BER investments in foundational climate research into actionable solutions for impacted communities and addressing the Administration priorities involving climate solutions and environmental justice. Operations and equipment refresh continue at the three BER scientific user facilities: the Joint Genome Institute, the Atmospheric Radiation Measurement Research Facility, and the Environmental Molecular Sciences Laboratory.

Fusion Energy Sciences.—The Fusion Energy Sciences (FES) program mission is to expand the fundamental understanding of matter at very high temperatures and densities and to build the scientific foundation needed to develop a fusion energy source. This is accomplished through the study of plasma, the fourth state of matter, and how it interacts with its surroundings. High-temperature fusion plasmas at hundreds of millions of degrees are being exploited in the laboratory to become the basis for a future clean energy source. Once developed, fusion energy will provide a clean energy source that is well-suited for on-demand, dispatchable electricity production, supplementing intermittent renewables and fission.

The FES program has four elements: 1) Burning Plasma Science: Foundations—The behavior of magnetically confined fusion plasmas is experimentally explored on the DIII-D National Fusion Facility and the National Spherical Torus Experiment-Upgrade (currently under repair), which are national scientific user facilities. Fusion theory and simulation activities predict and interpret the complex behavior of magnetically-confined plasmas. This element also supports partnerships with the private sector through the Innovation Network for Fusion Energy (INFUSE) program and a new milestone-based cost-share fusion enterprise program. In addition, FES will initiate an inertial fusion energy science and technology program; 2) Burning Plasma Science: Long Pulse—U.S. scientists take advantage of international partnerships to conduct research on overseas tokamaks and stellarators with unique capabilities. The element also supports research to develop the nuclear science and novel materials that can harness the power from a burning plasma and withstand the extreme fusion environment; 3) Burning Plasma Science: High Power—This element supports the U.S. Contributions to the International Thermonuclear Experimental Reactor (ITER) Project, the world's first burning plasma experiment, and the initiation of an ITER Research program; and 4) Discovery Plasma Science—This element supports research in Plasma Science & Technology, including plasma astrophysics, high-energy-density laboratory plasmas (HEDLP), and low-temperature plasmas. Besides ITER, FES also manages construction projects to build new or upgrade existing facilities to provide world-leading tools and instruments to the scientific community and maintain U.S. leadership in several areas. These include the Materials Plasma Exposure eXperiment (MPEx) for fusion materials science and

the Matter in Extreme Conditions (MEC) Petawatt Upgrade at SLAC National Accelerator Laboratory for HEDLP science.

High Energy Physics.—The High Energy Physics (HEP) program supports fundamental research to understand how the universe works by discovering the elementary constituents of matter and energy, probing the interactions among them, and exploring the basic nature of space and time. A world-wide program of particle physics research is underway to discover what lies beyond the Standard Model of particle physics. Five intertwined science drivers of particle physics provide compelling lines of inquiry that show great promise for discovery: 1) use the Higgs boson as a new tool for discovery; 2) pursue the physics associated with neutrino mass; 3) identify the new physics of dark matter; 4) understand cosmic acceleration, dark energy, and inflation; and 5) explore new particles, interactions and physical principles. The program enables scientific discovery through a strategy organized along three frontiers: 1) The Energy Frontier, where researchers accelerate particles to the highest energies and collide them to produce and study the fundamental constituents of matter; 2) The Intensity Frontier, where researchers use a combination of intense particle beams and highly sensitive detectors to make extremely precise measurements of particle properties, to study some of the rarest particle interactions predicted by the Standard Model, and to search for new physics; and 3) The Cosmic Frontier, where researchers seek to reveal the nature of dark matter and dark energy by using naturally occurring particles to explore new phenomena. The highest-energy particles ever observed have come from cosmic sources, and the ancient light from distant galaxies allows scientists to map the distribution of dark matter and perhaps unravel the nature of dark energy. Investments in Theoretical, Computational, and Interdisciplinary Physics provide the framework to explain experimental observations. Advanced Technology Research and Development (R&D) fosters fundamental and innovative research into particle acceleration and detection techniques and instrumentation, supporting the frontiers and enabling future discovery experiments. HEP supports two particle accelerator scientific user facilities. HEP also manages construction projects to build new or upgrade existing facilities, providing world-leading tools and instruments to the particle physics scientific community.

Nuclear Physics.—The mission of the Nuclear Physics (NP) program is to solve an enduring mystery of the universe—what are the basic constituents of matter and how do they interact to form the elements and the properties we observe? To solve this mystery, NP supports research to discover, explore, and understand all forms of nuclear matter, including exotic forms that existed in the first moments after the Big Bang. The goal is new knowledge that can benefit commerce, medicine, and national security. Achieving the goal requires support for advanced tools and the scientists and engineers who use them. NP provides ~95% of the support for basic nuclear physics research in the United States. Experimental approaches use large accelerators at national scientific user facilities to collide particles at nearly the speed of light, producing short-lived forms of nuclear matter for investigation. NP currently operates three national user facilities: the Relativistic Heavy Ion Collider, the Continuous Electron Beam Accelerator Facility, and the Argonne Tandem Linac Accelerator Facility. Also three powerful "microscopes" with complementary "resolving powers", which also produce advanced accelerator technology. Other research attempts to understand the theory of the strong nuclear force via Quantum Chromodynamics (QCD). An exciting vision to which NP researchers are making seminal contributions is quantum computing — future computers capable of solving QCD problems intractable with today's capabilities. To maintain U.S. leadership, the Facility for Rare Isotope Beams (FRIB) will begin operations in FY 2022 and will uniquely afford access to 80% of all isotopes predicted to possibly exist in nature, including over 1,000 never produced on earth. The Electron-Ion Collider (EIC) project is under development; when the EIC is completed in the next decade, it will provide unprecedented capability to discover how the mass of everyday objects is dynamically generated by the interaction of quarks and gluons. A targeted program of fundamental symmetries experiments is ongoing, including transformative

SCIENCE—Continued

research to determine whether the elusive neutrino particle is its own antiparticle. The National Nuclear Data Center is supported to collect, evaluate, curate, and disseminate nuclear physics data for basic nuclear physics research and applied nuclear technologies.

Isotope R&D and Production.—The DOE Isotope Program (DOE IP) produces critical radioactive and stable isotopes in short supply for the Nation that no domestic entity has the infrastructure or core competency to produce. Isotopes are high-priority commodities of strategic importance for the Nation and are essential in medical diagnosis and treatment, discovery science, national security and preparedness, industrial processes and manufacturing, space exploration and communications, biology, archeology, quantum science, clean energy, environmental science, and other fields. The DOE IP supports high-priority research on innovative and transformative approaches to isotopes production and processing, such as advanced manufacturing, artificial intelligence and machine learning, and robotics. The DOE IP promotes the development of robust, domestic supply chains of strategic isotopes and ensures national preparedness of critical infrastructure to mitigate risks in supply. The program provides mission readiness for the production and processing of radioactive and stable isotopes that are vital to the missions of many Federal agencies including the National Institutes of Health, National Institute of Standards and Technology, Department of Agriculture, Department of Defense, Department of Homeland Security, NNSA, and DOE SC programs. DOE IP continues to work in close collaboration with all federal organizations to develop strategic plans for isotope production and to establish effective communication to better forecast isotope needs and leverage resources. Construction continues for the Stable Isotope Production and Research Center to expand the stable isotope production capability to meet the demands of the Nation and mitigate dependency on stable isotope supply chains from foreign countries. Investments in QIS and Climate/Clean Energy support technology development for isotopes of interest. The DOE Isotope Traineeship advances workforce development in the field of isotope production and processing, promoting a safe, diverse, equitable and inclusive environment.

Accelerator R&D and Production.—Accelerator R&D and Production (ARDAP) supports cross-cutting basic R&D in accelerator science and technology, access to unique SC accelerator R&D infrastructure, workforce development, and public-private partnerships to advance new technologies for use in SC's scientific facilities and in commercial products. ARDAP supports fundamental research, user facility operations, and production of accelerator technologies in industry, with the aim of ensuring SC and broader U.S. Government have the best scientific instruments available. Reducing supply chain risks by re-shoring critical accelerator technologies is a key part of ARDAP's mission. ARDAP supports early-stage translational research to move advanced accelerator technology out of scientific laboratories and into broader applications in industry, environmental cleanup, medicine, and national security.

Workforce Development for Teachers and Scientists.—The Workforce Development for Teachers and Scientists (WDTS) program mission is to help ensure that DOE has a sustained pipeline of science, technology, engineering, and mathematics workers. This is accomplished through support of undergraduate internships, and graduate thesis research and collaborative faculty research opportunities at the DOE laboratories; and annual, nationwide, middle and high-school science competitions culminating in the National Science Bowl in Washington, D.C. These investments help develop the next generation of scientists and engineers.

Science Laboratories Infrastructure.—The Science Laboratories Infrastructure (SLI) program supports scientific and technological innovation at the SC laboratories by funding and sustaining mission-ready infrastructure and fostering safe and environmentally responsible operations. The program provides state-of-the-art facilities and infrastructure that are flexible, reliable, and sustainable in support of scientific discovery. The SLI program also funds Payments in Lieu of Taxes to local communities around the Argonne, Brookhaven, and Oak Ridge National Laboratories. The SLI

program continues to focus on improving infrastructure across the SC national laboratory complex. The FY 2023 request includes funding for eleven on-going SLI construction projects: 1) Princeton Plasma Innovation Center at PPPL; 2) Critical Infrastructure Recovery & Renewal at PPPL; 3) Critical Utilities Rehabilitation Project at BNL; 4) Seismic and Safety Modernization at LBNL; 5) CEBAF Renovation and Expansion at TJNAF; 6) Large Scale Collaboration Center at SLAC; 7) Argonne Utilities Upgrade at ANL; 8) Linear Assets Modernization Project at LBNL; 9) Critical Utilities Infrastructure Revitalization at SLAC; 10) Utilities Infrastructure Project at FNAL; and 11) Biological and Environmental Program Integration Center at LBNL.

Safeguards and Security.—The Safeguards and Security (S&S) program is designed to ensure appropriate security measures are in place to support the SC mission requirement of open scientific research and to protect critical assets within SC laboratories. This is accomplished by providing physical controls that will mitigate possible risks to the laboratories' employees, nuclear and special materials, classified and sensitive information, and facilities. The S&S program also provides funding for cyber security for the laboratories' information technology systems to protect electronic data while enabling the SC mission.

Program Direction.—Science Program Direction supports a highly skilled Federal workforce to develop and oversee SC investments in research and scientific user facilities. SC provides public access to DOE scientific findings to further leverage the Federal science investment and advance the scientific enterprise. SC requires highly skilled scientific and technical program and project managers, as well as experts in areas such as acquisition, finance, legal, construction, and infrastructure management, human resources, and environmental, safety, and health oversight. Oversight of DOE's basic research portfolio, which includes extramural grants and contracts supporting nearly 29,000 researchers located at over 300 institutions and the 17 DOE national laboratories, spanning all fifty states and the District of Columbia and 28 scientific user facilities serving nearly 34,000 users per year, as well as supervision of major construction projects, is a Federal responsibility.

Object Classification (in millions of dollars)

Identification code 089-0222-0-1-251	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	102	100	111
11.3 Other than full-time permanent	2		
11.5 Other personnel compensation	3		
11.8 Special personal services payments	1		
11.9 Total personnel compensation	108	100	111
12.1 Civilian personnel benefits	37	42	45
23.1 Rental payments to GSA			1
23.2 Rental payments to others			2
23.3 Communications, utilities, and miscellaneous charges	4	4	4
25.1 Advisory and assistance services	29	29	29
25.2 Other services from non-Federal sources	30	30	100
25.3 Other goods and services from Federal sources	12	12	8
25.4 Operation and maintenance of facilities	4,001	3,930	3,694
25.5 Research and development contracts	11	11	11
25.7 Operation and maintenance of equipment	2	2	2
26.0 Supplies and materials	2	2	2
31.0 Equipment	268	249	249
32.0 Land and structures	1,361	1,260	1,234
41.0 Grants, subsidies, and contributions	1,355	1,355	2,307
99.0 Direct obligations	7,220	7,026	7,799
99.0 Reimbursable obligations	622	624	624
99.9 Total new obligations, unexpired accounts	7,842	7,650	8,423

Employment Summary

Identification code 089-0222-0-1-251	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	766	766	820

ADVANCED RESEARCH PROJECTS AGENCY—ENERGY

For Department of Energy expenses necessary in carrying out the activities authorized by section 5012 of the America COMPETES Act (Public Law 110–69), \$700,150,000, to remain available until expended: Provided, That of such amount, \$57,150,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0337–0–1–270	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 ARPA-E Projects	289	392	523
0002 Program Direction	35	35	55
0799 Total direct obligations	324	427	578
0900 Total new obligations, unexpired accounts	324	427	578
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	397	509	510
1021 Recoveries of prior year unpaid obligations	9		
1070 Unobligated balance (total)	406	509	510
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	427	427	700
Spending authority from offsetting collections, discretionary:			
1701 Change in uncollected payments, Federal sources		1	1
1900 Budget authority (total)	427	428	701
1930 Total budgetary resources available	833	937	1,211
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	509	510	633
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	736	743	803
3010 New obligations, unexpired accounts	324	427	578
3020 Outlays (gross)	–308	–367	–568
3040 Recoveries of prior year unpaid obligations, unexpired	–9		
3050 Unpaid obligations, end of year	743	803	813
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1			–1
3070 Change in uncollected pymts, Fed sources, unexpired		–1	–1
3090 Uncollected pymts, Fed sources, end of year		–1	–2
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	736	743	802
3200 Obligated balance, end of year	743	802	811
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	427	428	701
Outlays, gross:			
4010 Outlays from new discretionary authority	23	44	71
4011 Outlays from discretionary balances	285	323	497
4020 Outlays, gross (total)	308	367	568
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources		–1	–1
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired		–1	–1
4052 Offsetting collections credited to expired accounts		1	1
4070 Budget authority, net (discretionary)	427	427	700
4080 Outlays, net (discretionary)	308	366	567
4180 Budget authority, net (total)	427	427	700
4190 Outlays, net (total)	308	366	567

The U.S. Department of Energy's Advanced Research Projects Agency-Energy (ARPA-E) was established by the America COMPETES Act of 2007 (Public Law 110–69), as amended. The mission of ARPA-E is to enhance the economic, climate, and energy security of the United States through the development of advanced technologies that reduce imports of energy from foreign sources; reduce energy-related emissions, including greenhouse gases; improve the energy efficiency of all economic sectors; provide transformative solutions to improve the management, clean-up,

and disposal of radioactive waste and spent nuclear fuel; improve the resilience, reliability, and security of infrastructure to produce, deliver, and store energy; mitigate the causes of, reverse the impact of, adapt to, or increase resilience against climate change; and monitor, analyze, and utilize climate emissions data. ARPA-E is expanding its scope to invest in climate-related innovations necessary to achieve net zero climate-inducing emissions by 2050 and address adaptation and resilience due to a changing climate. ARPA-E will ensure that the United States maintains a technological lead in developing and deploying advanced energy technologies. ARPA-E will identify and promote revolutionary advances in energy and climate-related applied sciences, translating scientific discoveries and cutting-edge inventions into technological innovations. It will also accelerate transformational technological advances in areas where industry by itself is not likely to invest due to technical and financial uncertainty. The role of ARPA-E is not to duplicate DOE's basic research and applied programs but to focus on novel early-stage energy research and development with technology applications that can be meaningfully advanced with a small investment over a defined period of time.

Object Classification (in millions of dollars)

Identification code 089–0337–0–1–270	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	2	2	3
11.3 Other than full-time permanent	6	8	13
11.9 Total personnel compensation	8	10	16
12.1 Civilian personnel benefits	3	2	3
21.0 Travel and transportation of persons		1	2
25.1 Advisory and assistance services	16	16	26
25.2 Other services from non-Federal sources	19	15	19
25.3 Other goods and services from Federal sources	4	4	8
25.4 Operation and maintenance of facilities	34	56	76
25.5 Research and development contracts	239	323	428
26.0 Supplies and materials	1		
99.0 Direct obligations	324	427	578
99.9 Total new obligations, unexpired accounts	324	427	578

Employment Summary

Identification code 089–0337–0–1–270	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	52	64	101

ENERGY SUPPLY AND CONSERVATION

Program and Financing (in millions of dollars)

Identification code 089–0224–0–1–999	2021 actual	2022 est.	2023 est.
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	6	6	6
1930 Total budgetary resources available	6	6	6
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	6	6	6
4180 Budget authority, net (total)			
4190 Outlays, net (total)			

NUCLEAR ENERGY

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for nuclear energy activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$1,675,060,000, to remain available until expended: Provided, That of such amount, \$85,457,000 shall be available until September 30, 2024, for program direction.

NUCLEAR ENERGY—Continued

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

NUCLEAR ENERGY

¶ For an additional amount for "Nuclear Energy", \$6,000,000,000, to remain available until expended, to carry out activities under the Civil Nuclear Credit Program, as authorized in section 40323 of division D of this Act: *Provided*, That \$1,200,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$1,200,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$1,200,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$1,200,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$1,200,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That not later than 90 days after the date of enactment of this Act, the Secretary of Energy shall submit to the House and Senate Committees on Appropriations a detailed spend plan for fiscal year 2022: *Provided further*, That for each fiscal year through 2026, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code, the Secretary of Energy shall submit a detailed spend plan for that fiscal year: *Provided further*, That up to \$36,000,000 of the amount provided under this heading in this Act shall be made available in each of fiscal years 2022 through 2026 for program direction: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985. ¶ (*Infrastructure Investments and Jobs Appropriations Act*.)

Program and Financing (in millions of dollars)

Identification code 089–0319–0–1–999	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0010 Naval Reactors Development	91	91	.....
0032 Reactor Concepts RD&D	201	200	135
0034 Advanced Reactors Demonstration Program	374	200	230
0041 Fuel Cycle R&D	279	300	422
0042 University Nuclear Leadership Program	5	5	7
0043 Nuclear Energy Enabling Technologies R&D	115	123	103
0044 Directed R&D & University Programs .....	.....	.....	137
0091 Research and Development programs, subtotal	1,065	919	1,034
0301 ORNL Infrastructure Facilities O&M	32	20	.....
0350 University Fuel Services .....	.....	12	18
0391 Direct program activities, subtotal	32	32	18
0401 Idaho Facilities Management	280	280	300
0402 Versatile Test Reactor Project	45	45	45
0403 Sample Preparation Laboratory Project	26	26	7
0450 Idaho National Laboratory safeguards and security	151	150	157
0451 International Nuclear Safety	6	5	5
0491 Infrastructure programs, subtotal	508	506	514
0502 Supercritical Transformational Electric Power Generation	4	5	.....
0551 Program Direction	69	75	85
0552 International Nuclear Energy Cooperation	1	.....	3
0591 Other direct program activities, subtotal	74	80	88
Credit program obligations:			
0739 Civil Nuclear Credit Program .....	.....	1,199	1,199
0791 Direct program activities, subtotal .....	.....	1,199	1,199
0799 Total direct obligations	1,679	2,736	2,853
0801 Nuclear Energy (Reimbursable)	232	240	250
0900 Total new obligations, unexpired accounts	1,911	2,976	3,103
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	309	222	324
1011 Unobligated balance transfer from other acct [072–0306]	6	.....	.....
1021 Recoveries of prior year unpaid obligations	28	.....	.....
1070 Unobligated balance (total)	343	222	324
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	1,508	2,707	1,675
1120 Appropriations transferred to other accts [089–0222]	–19	.....	.....
1121 Appropriations transferred from other acct [089–0314]	91	91	.....
1160 Appropriation, discretionary (total)	1,580	2,798	1,675

Advance appropriations, discretionary:			
1170 Advance appropriation .....	.....	.....	1,199
Spending authority from offsetting collections, discretionary:			
1700 Collected	165	280	281
1701 Change in uncollected payments, Federal sources	47	.....	.....
1750 Spending auth from offsetting collections, disc (total)	212	280	281
1900 Budget authority (total)	1,792	3,078	3,155
1930 Total budgetary resources available	2,135	3,300	3,479
Memorandum (non-add) entries:			
1940 Unobligated balance expiring	–2	.....	.....
1941 Unexpired unobligated balance, end of year	222	324	376
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	1,192	1,539	3,013
3010 New obligations, unexpired accounts	1,911	2,976	3,103
3020 Outlays (gross)	–1,535	–1,502	–2,735
3040 Recoveries of prior year unpaid obligations, unexpired	–28	.....	.....
3041 Recoveries of prior year unpaid obligations, expired	–1	.....	.....
3050 Unpaid obligations, end of year	1,539	3,013	3,381
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	–127	–174	–174
3070 Change in uncollected pymts, Fed sources, unexpired	–47	.....	.....
3090 Uncollected pymts, Fed sources, end of year	–174	–174	–174
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	1,065	1,365	2,839
3200 Obligated balance, end of year	1,365	2,839	3,207
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	1,792	3,078	3,155
Outlays, gross:			
4010 Outlays from new discretionary authority	614	1,450	1,031
4011 Outlays from discretionary balances	921	52	1,704
4020 Outlays, gross (total)	1,535	1,502	2,735
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	–153	–280	–281
4033 Non-Federal sources	–12	.....	.....
4040 Offsets against gross budget authority and outlays (total)	–165	–280	–281
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	–47	.....	.....
4070 Budget authority, net (discretionary)	1,580	2,798	2,874
4080 Outlays, net (discretionary)	1,370	1,222	2,454
4180 Budget authority, net (total)	1,580	2,798	2,874
4190 Outlays, net (total)	1,370	1,222	2,454

The Office of Nuclear Energy (NE) funds a broad range of research and development (R&D) activities and supports Federal nuclear energy R&D infrastructure. The FY 2023 Budget continues programmatic support for advanced reactor R&D activities; fuel cycle R&D; and the safe, environmentally compliant, and cost-effective operation of the Department's facilities vital to nuclear energy R&D activities.

Directed R&D and University Programs.—This program focuses nuclear energy related research and development activities conducted by small businesses and supports university level engineering and science through competitively awarded university led research and development and infrastructure, universities research reactor fuel services, and scholarships and fellowships.

Reactor Concepts Research, Development and Demonstration.—This program conducts R&D on advanced reactor designs and advanced technologies for light water reactors (LWR).

Fuel Cycle Research and Development.—This program conducts R&D on advanced fuel cycle technologies that have the potential to improve resource utilization and energy generation, reduce waste generation, enhance safety, and mitigate risk of proliferation.

Nuclear Energy Enabling Technologies.—This program conducts R&D and strategic infrastructure investments to develop innovative and crosscutting nuclear energy technologies, including investments in modeling and simulation tools and providing access to unique nuclear energy research capabilities through the Nuclear Science User Facilities (NSUF).

Advanced Reactors Demonstration Program.—This program focuses Departmental and non-Federal resources on the development of commercial

reactor technologies that may be ready for demonstration and deployment in the mid-term.

Versatile Test Reactor Project.—This program will provide the United States with a fast neutron testing capability to support the development of advanced nuclear reactor technologies. The Versatile Test Reactor (VTR) project will provide a leading edge capability for accelerated testing of advanced nuclear fuels, materials, instrumentation, and sensors.

Infrastructure.—This program manages Department of Energy mission critical facilities at the Idaho National Laboratory (INL), creating a safe and compliant status to support the Department's nuclear energy research and development activities, and testing of naval reactor fuels and reactor core components.

Idaho Sitewide Safeguards and Security.—This program supports the INL complex nuclear facility infrastructure and enables R&D in support of multiple program missions.

International Nuclear Energy Cooperation.—This program leads the Department's international engagement for civil nuclear energy, including analysis, development, and coordination activities.

Program Direction.—This program provides the Federal staffing resources and associated costs required to support the overall direction and execution of NE programs.

In FY 2023, NE will continue to support the Civil Nuclear Credit Program, a \$6 billion strategic investment (\$1.2 billion for each of five years) through the Bipartisan Infrastructure Law (BIL), to help preserve the existing U.S. reactor fleet and save thousands of high-paying jobs across the country. Under the new program, owners or operators of commercial U.S. reactors can apply for certification to bid on credits to support their continued operations. An application must demonstrate the reactor is projected to close for economic reasons and that closure will lead to a rise in air pollutants and carbon emissions. The program is available for plants that are certified as safe to continue operations and prioritizes plants that use domestically produced fuel.

Object Classification (in millions of dollars)

Identification code 089–0319–0–1–999	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	33	33	43
11.3 Other than full-time permanent	1	1	1
11.5 Other personnel compensation	1	1	1
11.9 Total personnel compensation	35	35	45
12.1 Civilian personnel benefits	12	12	15
23.3 Communications, utilities, and miscellaneous charges	1	1	1
25.1 Other Contractual Services	10	10	23
25.2 Other services from non-Federal sources	553	590	719
25.3 Other goods and services from Federal sources	12	10	15
25.4 Operation and maintenance of facilities	935	724	766
25.7 Operation and maintenance of equipment	1	1	1
31.0 Equipment	14	15	20
32.0 Land and structures	48	75	85
41.0 Grants, subsidies, and contributions	58	1,263	1,163
99.0 Direct obligations	1,679	2,736	2,853
99.0 Reimbursable obligations	232	240	250
99.9 Total new obligations, unexpired accounts	1,911	2,976	3,103

Employment Summary

Identification code 089–0319–0–1–999	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	270	290	394

ELECTRICITY

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for electricity activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or ex-

pansion, \$297,386,000, to remain available until expended: *Provided, That of such amount, \$17,586,000 shall be available until September 30, 2024, for program direction.*

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

ELECTRICITY

For an additional amount for "Electricity", \$8,100,000,000, to remain available until expended: *Provided, That of the amount provided under this heading in this Act, \$5,000,000,000 shall be for grants under section 40101 of division D of this Act: Provided further, That of the funds in the preceding proviso, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2026: Provided further, That of the amount provided under this heading in this Act, \$50,000,000 shall be to carry out the Transmission Facilitation Program, including for any administrative expenses of carrying out the program, as authorized in section 40106(d)(3) of division D of this Act: Provided further, That of the funds in the preceding proviso, \$10,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$10,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$10,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$10,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$10,000,000, to remain available until expended, shall be made available for fiscal year 2026: Provided further, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$3,000,000,000, to remain available until expended, shall be to carry out activities under the Smart Grid Investment Matching Grant Program, as authorized in section 1306 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17386), as amended by section 40107 of division D of this Act: Provided further, That of the funds in the preceding proviso, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$600,000,000, to remain available until expended, shall be made available for fiscal year 2026: Provided further, That of the amount provided under this heading in this Act, \$50,000,000 shall be to carry out an advanced energy security program to secure energy networks, as authorized under section 40125(d) of division D of this Act: Provided further, That not later than 90 days after the date of enactment of this Act, the Secretary of Energy shall submit to the House and Senate Committees on Appropriations and the Senate Committee on Energy and Natural Resources and the House Committee on Energy and Commerce a detailed spend plan for fiscal year 2022: Provided further, That for each fiscal year through 2026, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code, the Secretary of Energy shall submit a detailed spend plan for that fiscal year: Provided further, That up to three percent of the amounts made available under this heading in this Act in each of fiscal years 2022 through 2026 shall be for program direction: Provided further, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.] (Infrastructure Investments and Jobs Appropriations Act.)*

Program and Financing (in millions of dollars)

Identification code 089–0318–0–1–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0011 Transmission reliability and resiliency	47	47	37
0012 Resilient distribution systems	47	47	50
0014 Energy Storage	80	80	81
0015 Transformer Resilience and Advanced Components	7	7	23
0017 Cyber Resilient & Security Utility Communication Network			20
0018 Energy Delivery Grid Operations Technology			39
0019 Applied Grid Transformation Solutions			30
0030 Transmission permitting and technical assistance	8	8	
0040 Program Direction	18	18	17
0041 Electricity, Infrastructure Investment and Jobs Act		751	1,608
0799 Total direct obligations	207	958	1,905

ELECTRICITY—Continued
Program and Financing—Continued

Identification code 089–0318–0–1–271	2021 actual	2022 est.	2023 est.
0900 Total new obligations, unexpired accounts	207	958	1,905
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	12	14	926
1021 Recoveries of prior year unpaid obligations	2		
1070 Unobligated balance (total)	14	14	926
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	212	212	297
1100 Appropriation		1,658	
1120 Appropriations transferred to other accts [089–0222]	–5		
1160 Appropriation, discretionary (total)	207	1,870	297
Advance appropriations, discretionary:			
1170 Advance appropriation			1,608
Spending authority from offsetting collections, discretionary:			
1700 Collected	1		
1701 Change in uncollected payments, Federal sources	–1		
1900 Budget authority (total)	207	1,870	1,905
1930 Total budgetary resources available	221	1,884	2,831
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	14	926	926
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	286	292	814
3010 New obligations, unexpired accounts	207	958	1,905
3020 Outlays (gross)	–199	–436	–2,072
3040 Recoveries of prior year unpaid obligations, unexpired	–2		
3050 Unpaid obligations, end of year	292	814	647
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	–2	–1	–1
3070 Change in uncollected pymts, Fed sources, unexpired	1		
3090 Uncollected pymts, Fed sources, end of year	–1	–1	–1
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	284	291	813
3200 Obligated balance, end of year	291	813	646
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	207	1,870	1,905
Outlays, gross:			
4010 Outlays from new discretionary authority	20	266	923
4011 Outlays from discretionary balances	179	170	1,149
4020 Outlays, gross (total)	199	436	2,072
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	–1		
4040 Offsets against gross budget authority and outlays (total)	–1		
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	1		
4070 Budget authority, net (discretionary)	207	1,870	1,905
4080 Outlays, net (discretionary)	198	436	2,072
4180 Budget authority, net (total)	207	1,870	1,905
4190 Outlays, net (total)	198	436	2,072

The mission of the Office of Electricity (OE) is to drive electric grid modernization and resilience in energy infrastructure. OE leads the Department of Energy's efforts to strengthen, transform, and improve electricity delivery infrastructure so that consumers have access to resilient, secure, and clean sources of energy. OE programs include:

Transmission Reliability and Resilience (TRR).—The TRR program is focused on ensuring the reliability and resilience of the U.S. electric grid through R&D measurement and control of the electricity system, assessing evolving systems needs, identifying pathways to achieve an equitable transition to decarbonization and electrification, and risk assessment to address challenges across integrated energy systems.

Energy Delivery Grid Operations Technology (EDGOT).—EDGOT supports a public private partnership to develop national-scale energy planning and real-time situation awareness capabilities by focusing on de-

veloping large, networked communication and data infrastructure across multiple utility boundaries. EDGOT's North America Energy Resilience Model (NAERM) will help transition the current reactive state-of-practice to a new energy planning, investment, and operation paradigm in which we proactively develop infrastructure investment strategies.

Resilient Distribution Systems (RDS).—The RDS program develops transformative technologies, tools, and techniques to modernize the distribution portion of the electric delivery system. RDS activities will help harness emerging sources of energy for balance, reliability, and control: EVs, connected homes and buildings, increasing distributed solar, and energy storage.

Cyber Resilient and Secure Utility Communications Networks (SecureNet).—SecureNet, called Cyber R&D in the FY 2022 request to Congress, addresses energy sector cybersecurity associated with electricity delivery systems. SecureNet will focus on data and physics to redesign grid architecture that exposes the electricity system to cyber threats and will pursue coordinated engagement with DOE's other cyber-related activities.

Energy Storage.—The Energy Storage program, which is included in the Department's Grand Challenge, helps ensure the stability, reliability, and resilience of electricity infrastructure. The request supports emerging technology efforts focused on ultra-low-cost chemistries; a new GSL fellowship program; and continued development of the Rapid Operational Validation Initiative.

Transformer Resilience and Advanced Components (TRAC).—The TRAC program develops innovations for grid hardware that carries, controls, and converts electricity, helping to achieve decarbonization goals, ensure reliability and resilience of electric infrastructure, adapt the electricity delivery system to the evolution of the electric power grid, and provide the foundation to invigorate domestic transformer manufacturing. The request supports field validation of innovative, flexible, and adaptable prototypes for large power transformers (LPTs), which will promote greater standardization to increase grid resilience. TRAC will also address critical research needs for solid-state power substations (SSPS) with an emphasis on advanced materials, embedded intelligence for equipment monitoring, and validation of prototype converter building blocks.

Advanced Grid Transformation Solutions (AGTS).—AGTS is a new program in FY 2023 to address the pressing need for rapidly validating and deploying new systems by integrating technology suites in pilot environments to drive new technology adoption. AGTS will support integrated pilots to show how new technologies can help achieve stakeholder objectives. For each applied demonstration area, AGTS will consult stakeholders ensure that the project scope and outputs will be immediately useful to targeted decisionmakers.

Defense Critical Energy Infrastructure (DCEI) Energy Mission Assurance.—The DCEI Energy Mission Assurance program was funded in FY 2021 to identify, evaluate, prioritize, and assist in developing executable strategies to ensure that critical national defense and security missions have reliable access to power. In FY 2022, DOE proposed to integrate the functions of the DCEI Energy Mission Assurance program into the Office of Cybersecurity, Energy Security, and Emergency Response's suite of activities.

Transmission Permitting & Technical Assistance (TPTA).—The TPTA program worked with electricity system partners and stakeholders to modernize the grid and ensure adequate transmission capacity across the United States. TPTA activities are transferred to the Grid Deployment Office in FY 2023.

Program Direction.—Program Direction provides for the costs associated with the Federal workforce and contractor services that support OE's mission. These costs include salaries, benefits, travel, training, building occupancy, IT systems, and other related expenses.

The Bipartisan Infrastructure Law (BIL) (Infrastructure Investment and Jobs Act, P.L. 117–58) provides additional resources for OE to advance work in: 1) electric grid resilience, 2) technology deployment for enhancing grid flexibility, and 3) modeling energy infrastructure risk. Budgetary

projections, including program direction and FTE counts, in the OE account reflect execution of BIL programs appropriated to OE but will be executed through OE, the Office of Cybersecurity, Energy Security, and Emergency Response, and the newly established Grid Deployment Office.

Object Classification (in millions of dollars)

Identification code 089–0318–0–1–271	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	6	12	18
11.3 Other than full-time permanent	1	2	2
11.9 Total personnel compensation	7	14	20
12.1 Civilian personnel benefits	3	10	8
25.1 Advisory and assistance services	9	69	81
25.2 Other services from non-Federal sources	1	1	9
25.3 Other goods and services from Federal sources	3	6	27
25.4 Operation and maintenance of facilities		48	
25.5 Research and development contracts	161	161	170
32.0 Land and structures	23	23	208
41.0 Grants, subsidies, and contributions		626	1,382
99.0 Direct obligations	207	958	1,905
99.9 Total new obligations, unexpired accounts	207	958	1,905

Employment Summary

Identification code 089–0318–0–1–271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	58	83	124
2001 Reimbursable civilian full-time equivalent employment	4	4	4

GRID DEPLOYMENT OFFICE

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for grid deployment in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$90,221,000, to remain available until expended: Provided, That of such amount, \$5,521,000 shall be available until September 30, 2024, for program direction.

Program and Financing (in millions of dollars)

Identification code 089–2301–0–1–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Interregional & Offshore Transmission Planning			20
0002 Grid Planning and Development			16
0003 Grid Technical Assistance			30
0004 Wholesale Electricity Marketing TA & Grants			19
0050 Program Direction			5
0900 Total new obligations, unexpired accounts			90
Budgetary resources:			
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation			90
1930 Total budgetary resources available			90
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts			90
3020 Outlays (gross)			–14
3050 Unpaid obligations, end of year			76
Memorandum (non-add) entries:			
3200 Obligated balance, end of year			76
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross			90
Outlays, gross:			
4010 Outlays from new discretionary authority			14
4180 Budget authority, net (total)			90
4190 Outlays, net (total)			14

The newly created Grid Deployment Office (GDO) within the Office of the Under Secretary for Infrastructure serves as the catalyst for the development of new and upgraded high-capacity electric transmission lines nationwide. GDO works with electricity system partners and stakeholders by providing tools, conducting analyses, and improving decision-making processes to modernize and ensure a clean, reliable, resilient, and equitable grid that achieves 100% carbon-free electricity by 2035. Prior to FY 2023, these activities were funded within Electricity. New activities in FY 2023 include Wholesale Electricity Market Technical Assistance and Grants and Interregional and Offshore Transmission Planning.

Additional funding and FTEs for GDO programs provided in the Bipartisan Infrastructure Law are captured in the budgetary projections in, and will be executed through, the Department's Electricity account.

Object Classification (in millions of dollars)

Identification code 089–2301–0–1–271	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent			2
11.9 Total personnel compensation			2
12.1 Civilian personnel benefits			1
23.3 Communications, utilities, and miscellaneous charges			17
24.0 Printing and reproduction			2
25.1 Advisory and assistance services			5
25.2 Other services from non-Federal sources			53
25.3 Other goods and services from Federal sources			5
25.4 Operation and maintenance of facilities			2
25.7 Operation and maintenance of equipment			3
99.9 Total new obligations, unexpired accounts			90

Employment Summary

Identification code 089–2301–0–1–271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment			17

TRANSMISSION FACILITATION FUND

Program and Financing (in millions of dollars)

Identification code 089–4380–0–3–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0010 Loans			200
0020 Capacity contracts			200
0030 Public private partnerships			100
0900 Total new obligations, unexpired accounts			500
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1			2,500
Budget authority:			
Borrowing authority, mandatory:			
1400 Borrowing authority		2,500	
1900 Budget authority (total)		2,500	
1930 Total budgetary resources available		2,500	2,500
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year		2,500	2,000
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts			500
3020 Outlays (gross)			–500
Budget authority and outlays, net:			
Mandatory:			
4090 Budget authority, gross		2,500	
Outlays, gross:			
4101 Outlays from mandatory balances			500
4180 Budget authority, net (total)		2,500	
4190 Outlays, net (total)			500

The Transmission Facilitation Fund was created in section 40106 of the Infrastructure Investment and Jobs Act of 2021 to facilitate the construction

TRANSMISSION FACILITATION FUND—Continued

of electric power transmission lines and related facilities to eligible projects. A borrowing authority of \$2.5 billion has been established for the fund to carry out the program.

Object Classification (in millions of dollars)

Identification code 089-4380-0-3-271	2021 actual	2022 est.	2023 est.
Direct obligations:			
33.0 Investments and loans			400
41.0 Grants, subsidies, and contributions			100
99.9 Total new obligations, unexpired accounts			500

CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for energy sector cybersecurity, energy security, and emergency response activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$202,143,000, to remain available until expended: *Provided, That of such amount, \$25,123,000 shall be available until September 30, 2024, for program direction.*

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

CYBERSECURITY, ENERGY SECURITY, AND EMERGENCY RESPONSE

■ For an additional amount for "Cybersecurity, Energy Security, and Emergency Response", \$550,000,000, to remain available until expended: *Provided, That of the amount provided under this heading in this Act, \$250,000,000 shall be to carry out activities under the Cybersecurity for the Energy Sector Research, Development, and Demonstration Program, as authorized in section 40125(b) of division D of this Act: Provided further, That of the funds in the preceding proviso, \$50,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$50,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$50,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$50,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$50,000,000, to remain available until expended, shall be made available for fiscal year 2026: Provided further, That of the amount provided under this heading in this Act, \$250,000,000, to carry out activities under the Rural and Municipal Utility Advanced Cybersecurity Grant and Technical Assistance Program, as authorized in section 40124 of division D of this Act: Provided further, That \$50,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$50,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$50,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$50,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$50,000,000, to remain available until expended, shall be made available for fiscal year 2026: Provided further, That not later than 90 days after the date of enactment of this Act, the Secretary of Energy shall submit to the House and Senate Committees on Appropriations and the Senate Committee on Energy and Natural Resources and the House Committee on Energy and Commerce a detailed spend plan for fiscal year 2022: Provided further, That for each fiscal year through 2026, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code, the Secretary of Energy shall submit a detailed spend plan for that fiscal year: Provided further, That up to three percent of the amounts made available under this heading in this Act in each of fiscal years 2022 through 2026 shall be for program direction: Provided further, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985. ■ (Infrastructure Investments and Jobs Appropriations Act.)*

Program and Financing (in millions of dollars)

Identification code 089-2250-0-1-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0008 Cybersecurity for Energy Delivery Systems	54	54	.....
0010 Risk Management Technology and Tools (CEDS) .....	.....	.....	125
0020 Infrastructure security and energy restoration	54	54	.....
0021 Response and Restoration .....	.....	.....	24
0022 Information Sharing, Partnerships and Exercises .....	.....	.....	28
0030 Program direction	13	12	25
0035 CESER, Infrastructure Investment and Jobs Act .....	.....	68	100
0799 Total direct obligations	121	188	302
0801 Reimbursable work	3	3	3
0900 Total new obligations, unexpired accounts	124	191	305

Budgetary resources:

Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	22	64	182
1021 Recoveries of prior year unpaid obligations	8	.....	.....
1070 Unobligated balance (total)	30	64	182
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	156	306	202
1120 Appropriations transferred to other acct [089-0222]	-1	.....	.....
1160 Appropriation, discretionary (total)	155	306	202
Advance appropriations, discretionary:			
1170 Advance appropriation .....	.....	.....	100
Spending authority from offsetting collections, discretionary:			
1700 Collected	2	3	3
1701 Change in uncollected payments, Federal sources	1	.....	.....
1750 Spending auth from offsetting collections, disc (total)	3	3	3
1900 Budget authority (total)	158	309	305
1930 Total budgetary resources available	188	373	487
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	64	182	182

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	181	186	194
3010 New obligations, unexpired accounts	124	191	305
3020 Outlays (gross)	-111	-183	-340
3040 Recoveries of prior year unpaid obligations, unexpired	-8	.....	.....
3050 Unpaid obligations, end of year	186	194	159
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	-2	-3	-3
3070 Change in uncollected pymts, Fed sources, unexpired	-1	.....	.....
3090 Uncollected pymts, Fed sources, end of year	-3	-3	-3
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	179	183	191
3200 Obligated balance, end of year	183	191	156

Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross	158	309	305
Outlays, gross:			
4010 Outlays from new discretionary authority	17	81	134
4011 Outlays from discretionary balances	94	102	206
4020 Outlays, gross (total)	111	183	340
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	-2	-3	-3
4040 Offsets against gross budget authority and outlays (total)	-2	-3	-3
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	-1	.....	.....
4070 Budget authority, net (discretionary)	155	306	302
4080 Outlays, net (discretionary)	109	180	337
4180 Budget authority, net (total)	155	306	302
4190 Outlays, net (total)	109	180	337

The Office of Cybersecurity, Energy Security, and Emergency Response (CESER) leads the Department's efforts to secure U.S. energy infrastructure against all hazards, reduce the risks of and impacts from cyber events and other disruptive events, and assists with restoration activities. Programs include:

Risk Management Tools (RMT).—The RMT program seeks to enhance the reliability and resilience of the Nation's energy infrastructure through near- and long-term activities to strengthen energy sector cybersecurity across the Nation. Working closely with the energy sector and our government partners, RMT focuses on enhancing the speed and effectiveness of threat and vulnerability sharing and accelerating technology and tools to mitigate cyber incidents in today's systems and to develop next-generation resilient energy delivery systems while developing analyses to quantify the resulting relative risk reduction.

Response and Restoration (R&R).—The R&R program coordinates a national effort to secure the U.S. energy infrastructure against all hazards, reduce impacts from disruptive events, and assist industry with restoration activities. R&R delivers a range of capabilities including energy sector emergency response and recovery (including emergency response of a cyber nature); near-real-time situational awareness and information sharing about the status of the energy systems to improve risk management; analysis of evolving threats and hazards to energy infrastructure.

Information Sharing, Partnerships and Exercises (ISPE).—The ISPE program supports energy sector security and resilience in coordination with government and industry partners. By seeding public-private partnerships this program will advance the Department's efforts to support State, Local, Tribal, territory and industry in preparing for, mitigating, and recovering from all threats and hazards facing the U.S. energy sector through information sharing, risk assessments, capacity building in planning and resilience, and targeted training and exercises.

Program Direction.—Program Direction provides for the costs associated with the Federal workforce and contractor services that support CESER's mission. These costs include salaries, benefits, travel, training, building occupancy, IT systems, and other related expenses.

The Bipartisan Infrastructure Law (BIL) (Infrastructure Investment and Jobs Act, P.L. 117–58) provides additional resources for CESER to advance work in: 1) a rural and municipal utility advanced cybersecurity grant and technical assistance program, and 2) enhancing grid security.

Object Classification (in millions of dollars)

Identification code 089–2250–0–1–271	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent	4	7	17
11.9 Total personnel compensation	4	7	17
12.1 Civilian personnel benefits	2	2	4
21.0 Travel and transportation of persons			1
25.1 Advisory and assistance services	13	15	23
25.2 Other services from non-Federal sources	2	3	4
25.3 Other goods and services from Federal sources	1	1	2
25.5 Research and development contracts	99	104	167
41.0 Grants, subsidies, and contributions		56	84
99.0 Direct obligations	121	188	302
99.0 Reimbursable obligations	3	3	3
99.9 Total new obligations, unexpired accounts	124	191	305

Employment Summary

Identification code 089–2250–0–1–271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	21	44	100

ENERGY EFFICIENCY AND RENEWABLE ENERGY

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for energy efficiency and renewable energy activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$4,018,885,000, to remain available until expended: Provided, That of such amount, \$224,474,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

ENERGY EFFICIENCY AND RENEWABLE ENERGY

For an additional amount for "Energy Efficiency and Renewable Energy", \$16,264,000,000 to remain available until expended: *Provided*, That of the amount provided under this heading in this Act, \$250,000,000 shall be for activities for the Energy Efficiency Revolving Loan Fund Capitalization Grant Program, as authorized under section 40502 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$40,000,000 shall be for grants for the Energy Auditor Training Grant Program, as authorized under section 40503 of division D of this Act: *Provided further*, That of the amount provided under the heading in this Act, \$225,000,000 shall be for grants for implementing of updated building energy codes, as authorized under section 309 of the Energy Conservation and Production Act (42 U.S.C. 6831 et seq.), as amended by section 40511(a) of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$45,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$45,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$45,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$45,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$45,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$10,000,000 shall be for Building, Training, and Assessment Centers, as authorized under section 40512 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$10,000,000 shall be for grants for Career Skills Training, as authorized under section 40513 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$150,000,000 shall be for activities for Industrial Research and Assessment Centers, as authorized under subsections (a) through (h) of section 457 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111 et seq.), as amended by section 40521(b) of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$30,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$30,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$30,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$30,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$30,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$400,000,000 shall be for activities for Implementation Grants for Industrial Research and Assessment Centers, as authorized under section 457(i) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17111 et seq.), as amended by section 40521(b) of division D of this Act: *Provided further*, That of the funds in the preceding two provisos, \$80,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$80,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$80,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$80,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$80,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$50,000,000 shall be for carrying out activities for Manufacturing Leadership, as authorized under section 40534 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$500,000,000 shall be for grants for Energy Efficiency Improvements and Renewable Energy Improvements at Public School Facilities, as authorized under section 40541 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$100,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$50,000,000 shall be for grants for the Energy Efficiency Materials Pilot Program, as authorized under section 40542 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$3,500,000,000 shall be for carrying out activities for the Weatherization Assistance Program, as authorized under part A of title IV of the Energy Conservation and Production Act (42 U.S.C. 6861 et seq.): *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$550,000,000 shall be for carrying out activities for the Energy Efficiency and Conservation Block Grant Program, as authorized under

ENERGY EFFICIENCY AND RENEWABLE ENERGY—Continued

section 542(a) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17152(a)): *Provided further*, That of the amount provided under this heading in this Act, \$250,000,000 shall be for grants for the Assisting Federal Facilities with Energy Conservation Technologies Grant Program, as authorized under section 546(b) of the National Energy Conservation Policy Act (42 U.S.C. 8256(b)): *Provided further*, That of the amount provided under this heading in this Act, \$10,000,000 shall be for extended product system rebates, as authorized under section 1005 of the Energy Act of 2020 (42 U.S.C. 6311 note; Public Law 116–260): *Provided further*, That of the amount provided under this heading in this Act, \$10,000,000 shall be for energy efficient transformer rebates, as authorized under section 1006 of the Energy Act of 2020 (42 U.S.C. 6317 note; Public Law 116–260): *Provided further*, That of the amount provided under this heading in this Act, \$3,000,000,000, to remain available until expended, shall be for Battery Material Processing Grants, as authorized under section 40207(b) of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$600,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$3,000,000,000 shall be for Battery Manufacturing and Recycling Grants, as authorized under section 40207(c) of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$600,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$125,000,000 shall be to carry out activities, as authorized under section 40207(f) of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$10,000,000 shall be for a Lithium-Ion Battery Recycling Prize Competition, as authorized under section 40207(e) of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$200,000,000 shall be for grants for the Electric Drive Vehicle Battery Recycling and Second-Life Applications Program, as authorized under subsection (k) of section 641 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17231), as amended by section 40208(1) of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$40,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$40,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$40,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$40,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$40,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$750,000,000 shall be for grants for the Advanced Energy Manufacturing and Recycling Grant Program, as authorized under section 40209 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$150,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$150,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$150,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$150,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$150,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$500,000,000 shall be for activities for the Clean Hydrogen Manufacturing Recycling Research, Development, and Demonstration Program, as authorized under section 815 of the Energy Policy Act of 2005 (42 U.S.C. 16151 et seq.), as amended by section 40314 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$100,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under the heading in this Act, \$1,000,000,000 shall be for activities for the Clean Hydrogen Electrolysis Program, as authorized under section 816 of the Energy Policy Act of 2005 (42 U.S.C. 16151 et seq.), as amended by section 40314 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$200,000,000, to remain available until expended,

shall be made available for fiscal year 2022, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$200,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$500,000,000 shall be for carrying out activities for the State Energy Program, as authorized under part D of title III of the Energy Policy and Conservation Act (42 U.S.C. 6321 et seq.), as amended by section 40109 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$125,000,000 shall be for carrying out activities under section 242 of the Energy Policy Act of 2005 (42 U.S.C. 15881), as amended by section 40331 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$75,000,000 shall be for carrying out activities under section 243 of the Energy Policy Act of 2005 (42 U.S.C. 15882), as amended by section 40332 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$553,600,000 shall be for activities for Hydroelectric Incentives, as authorized under section 247 of the Energy Policy Act of 2005 (Public Law 109–58; 119 Stat. 674), as amended by section 40333(a) of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$276,800,000, to remain available until expended, shall be made available for fiscal year 2022, \$276,800,000, to remain available until expended, shall be made available for fiscal year 2023: *Provided further*, That of the amount provided under the heading in this Act, \$10,000,000 shall be for activities for the Pumped Storage Hydropower Wind and Solar Integration and System Reliability Initiative, as authorized under section 3201 of the Energy Policy Act of 2020 (42 U.S.C. 17232), as amended by section 40334 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act, \$36,000,000 shall be for carrying out activities, as authorized under section 634 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17213): *Provided further*, That of the amount provided under this heading in this Act, \$70,400,000 shall be for carrying out activities, as authorized under section 635 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17214): *Provided further*, That of the amount provided under this heading in this Act, \$40,000,000 shall be for carrying out activities for the National Marine Energy Centers, as authorized under section 636 of the Energy Independence and Security Act of 2007 (42 U.S.C. 17215): *Provided further*, That of the amount provided under this heading in this Act, \$84,000,000 shall be for carrying out activities under section 615(d) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17194(d)): *Provided further*, That of the amount provided under this heading in this Act, \$60,000,000 shall be for carrying out activities for the Wind Energy Technology Program, as authorized under section 3003(b)(2) of the Energy Act of 2020 (42 U.S.C. 16237(b)(2)): *Provided further*, That of the amount provided under this heading in this Act, \$40,000,000 shall be for carrying out activities for the Wind Energy Technology Recycling Research, Development, and Demonstration Program, as authorized under section 3003(b)(4) of the Energy Act of 2020 (42 U.S.C. 16237(b)(4)): *Provided further*, That of the amount provided under this heading in this Act, \$40,000,000 shall be for carrying out activities under section 3004(b)(2) of the Energy Act of 2020 (42 U.S.C. 16238(b)(2)): *Provided further*, That of the amount provided under this heading in this Act, \$20,000,000 shall be for carrying out activities under section 3004(b)(3) of the Energy Act of 2020 (42 U.S.C. 16238(b)(3)): *Provided further*, That of the amount provided under this heading in this Act, \$20,000,000 shall be for carrying out activities under section 3004(b)(4) of the Energy Act of 2020 (42 U.S.C. 16238(b)(4)): *Provided further*, That not later than 90 days after the date of enactment of this Act, the Secretary of Energy shall submit to the House and Senate Committees on Appropriations and the Senate Committee on Energy and Natural Resources and the House Committee on Energy and Commerce a detailed spend plan for fiscal year 2022: *Provided further*, That for each fiscal year through 2026, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code, the Secretary of Energy shall submit a detailed spend plan for that fiscal year: *Provided further*, That up to three percent of the amounts made available under this heading in this Act in each of fiscal years 2022 through 2026 shall be for program direction: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.] (*Infrastructure Investments and Jobs Appropriations Act.*)

Program and Financing (in millions of dollars)

Identification code 089–0321–0–1–270	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Vehicle Technologies	313	313	477
0002 Bioenergy Technologies	254	254	339
0003 Hydrogen & Fuel Cell Technologies	110	110	136
0091 Sustainable Transportation, subtotal	677	677	952
0101 Solar Energy	338	338	645
0102 Wind Energy	116	116	365
0103 Water Power	137	137	172
0104 Geothermal Technologies	65	65	124
0105 Renewable Energy Integration			14
0191 Renewable Electricity, subtotal	656	656	1,320
0201 Advanced Manufacturing	413	413	608
0202 Building Technologies	303	303	410
0203 Weatherization & Intergovernmental Activities	353	353	
0204 Federal Energy Management Program	26	26	
0291 Energy Efficiency, subtotal	1,095	1,095	1,018
0301 Program Direction & Support	157	157	197
0302 Strategic Programs	16	16	66
0303 Facilities & Infrastructure	130	130	302
0391 EERE Corporate Support, subtotal	303	303	565
0401 Infrastructure Investment and Jobs Act		1,033	2,000
0799 Total direct obligations	2,731	3,764	5,855
0810 Energy Efficiency and Renewable Energy (Reimbursable)	171	168	168
0900 Total new obligations, unexpired accounts	2,902	3,932	6,023
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	720	809	8,209
1021 Recoveries of prior year unpaid obligations	40	90	90
1033 Recoveries of prior year paid obligations	1		
1070 Unobligated balance (total)	761	899	8,299
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	2,864	2,864	4,019
1100 Appropriation [Infrastructure Investment and Jobs Act of 2021]		8,199	
1120 Appropriations transferred to other accts [089–0222]	–80		
1131 Unobligated balance of appropriations permanently reduced	–2	–2	
1160 Appropriation, discretionary (total)	2,782	11,061	4,019
Advance appropriations, discretionary:			
1170 Advance appropriation [Infrastructure Investment and Jobs Act]			2,220
Spending authority from offsetting collections, discretionary:			
1700 Collected	158	181	181
1701 Change in uncollected payments, Federal sources	10		
1750 Spending auth from offsetting collections, disc (total)	168	181	181
1900 Budget authority (total)	2,950	11,242	6,420
1930 Total budgetary resources available	3,711	12,141	14,719
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	809	8,209	8,696
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	4,131	4,636	5,584
3010 New obligations, unexpired accounts	2,902	3,932	6,023
3020 Outlays (gross)	–2,357	–2,894	–8,138
3040 Recoveries of prior year unpaid obligations, unexpired	–40	–90	–90
3050 Unpaid obligations, end of year	4,636	5,584	3,379
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	–77	–87	–87
3070 Change in uncollected pymts, Fed sources, unexpired	–10		
3090 Uncollected pymts, Fed sources, end of year	–87	–87	–87
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	4,054	4,549	5,497
3200 Obligated balance, end of year	4,549	5,497	3,292
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	2,950	11,242	6,420
Outlays, gross:			
4010 Outlays from new discretionary authority	304	1,405	1,012
4011 Outlays from discretionary balances	2,053	1,489	7,126
4020 Outlays, gross (total)	2,357	2,894	8,138

Offsets against gross budget authority and outlays:

Offsetting collections (collected) from:			
4030 Federal sources	–72	–81	–81
4033 Non-Federal sources	–87	–100	–100
4040 Offsets against gross budget authority and outlays (total)	–159	–181	–181
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	–10		
4053 Recoveries of prior year paid obligations, unexpired accounts	1		
4060 Additional offsets against budget authority only (total)	–9		
4070 Budget authority, net (discretionary)	2,782	11,061	6,239
4080 Outlays, net (discretionary)	2,198	2,713	7,957
4180 Budget authority, net (total)	2,782	11,061	6,239
4190 Outlays, net (total)	2,198	2,713	7,957

The Office of Energy Efficiency and Renewable Energy (EERE) accelerates the research, development, demonstration, and deployment (RDD&D) of technologies and solutions to equitably transition America to net-zero greenhouse gas (GHG) emissions economy-wide no later than 2050, creating good paying jobs, and ensuring the clean energy economy benefits all Americans.

To achieve this mission, EERE invests in clean energy technologies that are ready to be demonstrated and deployed, as well as research and development (R&D) activities that advance early stage technologies with a clear path to deployment. EERE's investments focus on five strategic priority areas: decarbonizing the electricity sector, decarbonizing transportation across all modes, decarbonizing energy-intensive industries, reducing the carbon footprint of buildings, and enabling net-zero agricultural production of biofuels.

EERE works in a unified and coordinated way with its state and local partners to accelerate a just, equitable transition to a clean energy economy and ensure that the office's investments benefit everyone, especially those in underserved or pollution over-burdened communities and workers and communities impacted by the energy transition. The office is organized into four pillars, with three technical pillars designed to advance cross-technology solutions, and a Corporate Program pillar that serves as the central organization for all EERE products, services, processes, and systems.

Sustainable Transportation Pillar.—Supports RDD&D efforts to decarbonize transportation across all modes to enable the following: vehicle electrification; commercially viable hydrogen fuel cell trucks; sustainable aviation fuel from biomass; and waste carbon resources and low-GHG options for off-road vehicles, rail, and maritime transport. Many newly-proposed investments in this pillar are directly focused on deployment or demonstration of technology to show viable commercial paths, including a number of programmatic performance milestones by 2030 related to decarbonizing transportation across all modes. The Budget also supports hydrogen use for industrial decarbonization and energy storage, including sustainable biomass to achieve reduced GHG from the agricultural sector.

Renewable Power Pillar.—Supports RDD&D efforts to reduce the costs and accelerate the integration and utilization of renewable energy technologies as part of a reliable, secure, resilient, and fully decarbonized electric system by 2035 and a net zero economy by 2050. This request drives critical cost reductions and technical improvements in wind, solar, geothermal, and water power technologies to increase the penetration of cost-competitive, non-emitting energy generation resources across the country. Renewable Power also provides new research and technologies to facilitate the siting and integration of the high levels of renewable power generation needed to fully decarbonize the power system, and supports the development of diversified, resilient supply chains for all renewable energy technologies to help ensure the long-lasting security of the U.S. energy supply, which will also provide thousands of good-paying jobs for American workers. The Budget also includes funding for a new Solar Manufacturing Accelerator, an initiative that partners the Advanced Manufacturing Office in the Energy Efficiency pillar with the Solar Energy Technology Office intended to diversify and strengthen the supply chain for solar energy technologies, as well as enhance the domestic capability to produce technologically ad-

ENERGY EFFICIENCY AND RENEWABLE ENERGY—Continued

vanced solar energy components that avoid supply chains that may be reliant in part on unethically sourced materials or vulnerable foreign supply chains.

Energy Efficiency Pillar.— Supports RDD&D to decarbonize America's homes, buildings, and industrial facilities while also strengthening U.S. manufacturing competitiveness and producing thousands of good-paying jobs. The request includes increased support for demonstration and deployment, as well as high impact R&D of technologies to increase energy efficiency, improve demand flexibility, and reduce on-site emissions from our nation's 125 million homes and commercial buildings to reduce total emissions by 50 percent by 2030 and net-zero by 2050. It also increases investment in RDD&D across the multiple decarbonization technologies and approaches necessary to achieve net-zero emissions by 2050, including industry-specific decarbonization investments focused on the chemicals, iron and steel, cement, and food products industries. In addition, the request includes significant funding increases for public investment in federal, state, and community programs to accelerate investments in decarbonizing all sectors of the U.S. economy, and initiates funding for the Solar Manufacturing Accelerator initiative in partnership with the Solar Energy Technologies Office in the Renewable Power pillar.

Corporate Programs Pillar.—Supports activities to make EERE more efficient and effective. This pillar identifies ways to strengthen EERE's overall performance, organization, budget, laboratory management, operations, human capital, and project management while achieving significant cost savings. This includes support for program direction (e.g., salaries and benefits, support services, working capital fund, etc.) and facilities and infrastructure as part of EERE's stewardship of the National Renewable Energy Laboratory (e.g., general plant projects, general purpose equipment, safeguards and security, and capacity building for Administration priorities).

Budgetary projections, including program direction and FTE counts, in the EERE account reflect execution of Bipartisan Infrastructure Legislation (BIL) programs appropriated to EERE and executed through EERE and three newly established programs: State and Community Energy Programs; Manufacturing and Energy Supply Chains; and Federal Energy Management Program.

In FY 2023, through the EERE appropriation, \$2.2 Billion of BIL funding is provided to support the following activities: Electric Drive Vehicle Battery Recycling and Second-Life Applications Program; Clean Hydrogen Electrolysis Program; Clean Hydrogen Manufacturing Recycling Research, Development, and Demonstration Program; Maintaining and Enhancing Hydroelectricity Incentives - Section 247 of the Energy Policy Act of 2005; Implementation Grants for Industrial Research and Assessment Centers; Industrial Research and Assessment Centers; Grants for Energy Efficiency Improvement and Renewable Energy Improvements at Public School Facilities; Grants for Updating Building Energy Codes; Advanced Energy Manufacturing and Recycling GrantProgram; Battery Manufacturing and Recycling Grants; and Battery Material Processing Grants.

Object Classification (in millions of dollars)

Identification code 089–0321–0–1–270	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	77	87	110
11.3 Other than full-time permanent	2	2	2
11.5 Other personnel compensation	2	2	2
11.9 Total personnel compensation	81	91	114
12.1 Civilian personnel benefits	28	33	41
23.1 Communications, utilities, and miscellaneous charges	2	2	4
25.1 Advisory and assistance services	115	115	200
25.2 Other services from non-Federal sources	12	12	12
25.3 Other goods and services from Federal sources	28	28	30
25.4 Operation and maintenance of facilities	1,404	2,339	3,950
25.5 Research and development contracts	122	122	200
25.7 Operation and maintenance of equipment	1	1	2
26.0 Supplies and materials	1	1	2
31.0 Equipment	20	20	40
41.0 Grants, subsidies, and contributions	917	1,000	1,260
99.0 Direct obligations	2,731	3,764	5,855

99.0	Reimbursable obligations	171	168	168
99.9	Total new obligations, unexpired accounts	2,902	3,932	6,023

Employment Summary

Identification code 089–0321–0–1–270	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	594	651	828
2001 Reimbursable civilian full-time equivalent employment	1		

OFFICE OF MANUFACTURING AND ENERGY SUPPLY CHAINS

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for manufacturing and energy supply chain activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$27,424,000, to remain available until expended: Provided, That of such amount, \$6,424,000 shall be available until September 30, 2024, for program direction.

Program and Financing (in millions of dollars)

Identification code 089–2291–0–1–270	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Facility and Workforce Assistance			18
0002 Energy Sector Industrial Base Technical Assistance			3
0010 Program Direction			6
0900 Total new obligations, unexpired accounts			27
Budgetary resources:			
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation			27
1930 Total budgetary resources available			27
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts			27
3020 Outlays (gross)			–14
3050 Unpaid obligations, end of year			13
Memorandum (non-add) entries:			
3200 Obligated balance, end of year			13
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross			27
Outlays, gross:			
4010 Outlays from new discretionary authority			14
4180 Budget authority, net (total)			27
4190 Outlays, net (total)			14

The newly created Office of Manufacturing and Energy Supply Chains (MESC), within the Office of the Under Secretary for Infrastructure, will train the next generation of energy engineers and conduct energy assessments to identify opportunities to improve productivity and competitiveness, reduce waste, and save energy for small- and medium-sized manufacturers. DOE's Industrial Assessment Centers provide a no-cost assessment, including in-depth evaluations of a facility conducted by engineering faculty with upper class and graduate students from a participating university. This detailed process analysis will generate specific recommendations with estimates of costs, performance, and payback schedules.

These activities were previously funded within Energy Efficiency and Renewable Energy. Additional Bipartisan Infrastructure Law funding and full-time equivalents (FTEs) for the MESC program are captured in the budgetary projections in, and will be executed through, the Department's EERE account.

Object Classification (in millions of dollars)

Identification code 089–2291–0–1–270	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent			1
11.9 Total personnel compensation			1
25.1 Advisory and assistance services			4
25.2 Other services from non-Federal sources			1
25.4 Operation and maintenance of facilities			18
94.0 Financial transfers			3
99.9 Total new obligations, unexpired accounts			27

Employment Summary

Identification code 089–2291–0–1–270	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment			3

OFFICE OF STATE AND COMMUNITY ENERGY PROGRAMS

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for state and community energy activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$726,897,000, to remain available until expended: Provided, That of such amount, \$24,727,000 shall be available until September 30, 2024, for program direction.

Program and Financing (in millions of dollars)

Identification code 089–2292–0–1–270	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0002 Weatherization Assistance Program			502
0003 Community Programs			25
0004 State Energy Programs			70
0005 Build Back Better Challenge Grants			105
0010 Program Direction			25
0900 Total new obligations, unexpired accounts			727
Budgetary resources:			
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation			727
1930 Total budgetary resources available			727
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts			727
3020 Outlays (gross)			–239
3050 Unpaid obligations, end of year			488
Memorandum (non-add) entries:			
3200 Obligated balance, end of year			488
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross			727
Outlays, gross:			
4010 Outlays from new discretionary authority			239
4180 Budget authority, net (total)			727
4190 Outlays, net (total)			239

The newly created Office of State and Community Energy Programs (SCEP), within the Office of the Under Secretary for Infrastructure, supports the transition to an equitable clean energy economy by working with community-level implementation partners and State Energy Offices. SCEP manages the Weatherization Assistance Program (WAP), State Energy Program, Local Government Program, and Build Back Better Challenge Grants. SECP was previously funded within the Office of Energy Efficiency and Renewable Energy (EERE). In FY 2023, WAP will launch a Low-Income Home Energy Assistance Program Advantage (LIHEAP Advantage)

pilot to retrofit and decarbonize LIHEAP beneficiary homes with efficient electric appliances and systems.

These activities were previously funded within EERE. Additional Bipartisan Infrastructure Law funding and FTEs for SCEP are captured in the budgetary projections in, and will be executed through, the Department's EERE account.

Object Classification (in millions of dollars)

Identification code 089–2292–0–1–270	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent			9
11.3 Other than full-time permanent			1
11.5 Other personnel compensation			1
11.9 Total personnel compensation			11
12.1 Civilian personnel benefits			3
21.0 Travel and transportation of persons			2
23.1 Rental payments to GSA			1
23.3 Communications, utilities, and miscellaneous charges			1
25.1 Advisory and assistance services			44
25.2 Other services from non-Federal sources			2
25.3 Other goods and services from Federal sources			1
41.0 Grants, subsidies, and contributions			662
99.9 Total new obligations, unexpired accounts			727

Employment Summary

Identification code 089–2292–0–1–270	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment			75

FEDERAL ENERGY MANAGEMENT PROGRAM

For Department of Energy expenses including the purchase, construction, and acquisition of plant and capital equipment, and other expenses necessary for federal energy management activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$169,661,000, to remain available until expended: Provided, That of such amount, \$14,511,000 shall be available until September 30, 2024, for program direction.

Program and Financing (in millions of dollars)

Identification code 089–2293–0–1–270	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Federal Energy Management			38
0002 Federal Energy Efficiency Fund			60
0003 Net Zero Laboratory Initiative			57
0010 Program Direction			15
0900 Total new obligations, unexpired accounts			170
Budgetary resources:			
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation			170
1930 Total budgetary resources available			170
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts			170
3020 Outlays (gross)			–68
3050 Unpaid obligations, end of year			102
Memorandum (non-add) entries:			
3200 Obligated balance, end of year			102
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross			170
Outlays, gross:			
4010 Outlays from new discretionary authority			68
4180 Budget authority, net (total)			170
4190 Outlays, net (total)			68

FEDERAL ENERGY MANAGEMENT PROGRAM—Continued

The newly created Office of Federal Energy Management Program (FEMP), within the Office of the Under Secretary for Infrastructure, helps Federal agencies meet sustainability goals by providing technical assistance, financial assistance, training, and other resources. FEMP works with stakeholders to enable Federal agencies to identify affordable solutions, facilitate public-private partnerships, and provide energy leadership to the country through government best practices. FEMP was previously funded within the Office of Energy Efficiency and Renewable Energy (EERE). In FY 2023, the program will launch the Net-Zero Labs Initiative to competitively select clean energy deployment and decarbonization projects across the National Laboratories. These investments will create good paying jobs while driving progress toward the Administrations climate goals, including the Presidents goal of 80 percent carbon pollution-free electricity by 2030.

Additional Bipartisan Infrastructure Law funding and FTEs for FEMP are captured in the budgetary projections in, and will be executed through the Department's EERE account.

Object Classification (in millions of dollars)

Identification code 089-2293-0-1-270	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent			3
11.3 Other than full-time permanent			1
11.5 Other personnel compensation			1
11.9 Total personnel compensation			5
12.1 Civilian personnel benefits			1
21.0 Travel and transportation of persons			1
23.1 Rental payments to GSA			1
23.3 Communications, utilities, and miscellaneous charges			1
25.1 Advisory and assistance services			5
25.4 Operation and maintenance of facilities			96
41.0 Grants, subsidies, and contributions			60
99.9 Total new obligations, unexpired accounts			170

Employment Summary

Identification code 089-2293-0-1-270	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment			47

GLOBAL CLEAN ENERGY MANUFACTURING
(Legislative proposal, subject to PAYGO)

Program and Financing (in millions of dollars)

Identification code 089-2302-4-1-270	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0010 Clean Energy Manufacturing Programs			196
0020 Program Direction			4
0900 Total new obligations, unexpired accounts			200
Budgetary resources:			
Budget authority:			
Appropriations, mandatory:			
1200 Appropriation			200
1930 Total budgetary resources available			200
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts			200
3020 Outlays (gross)			-40
3050 Unpaid obligations, end of year			160
Memorandum (non-add) entries:			
3200 Obligated balance, end of year			160
Budget authority and outlays, net:			
Mandatory:			
4090 Budget authority, gross			200

Outlays, gross:

4100 Outlays from new mandatory authority	40
4180 Budget authority, net (total)	200
4190 Outlays, net (total)	40

The Budget proposes a \$1 billion mandatory investment to launch a Global Clean Energy Manufacturing effort that would build resilient supply chains for climate and clean energy equipment through engagement with allies, enabling an effective global response to the climate crisis while creating economic opportunities for the U.S. to increase its share of the global clean technology market.

Object Classification (in millions of dollars)

Identification code 089-2302-4-1-270	2021 actual	2022 est.	2023 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent			1
25.1 Advisory and assistance services			3
25.4 Operation and maintenance of facilities			80
25.5 Research and development contracts			56
41.0 Grants, subsidies, and contributions			60
99.9 Total new obligations, unexpired accounts			200

Employment Summary

Identification code 089-2302-4-1-270	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment			8

OFFICE OF TECHNOLOGY TRANSITIONS

For Department of Energy expenses in carrying out the activities of the Office of Technology Transitions, \$21,558,000, to remain available until September 30, 2028: Provided, That of such amount, \$13,183,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0346-0-1-276	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0010 Technology transition activities			9
0040 Program direction			13
0900 Total new obligations, unexpired accounts			22
Budgetary resources:			
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation			22
1930 Total budgetary resources available			22
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts			22
3020 Outlays (gross)			-11
3050 Unpaid obligations, end of year			11
Memorandum (non-add) entries:			
3200 Obligated balance, end of year			11
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross			22
Outlays, gross:			
4010 Outlays from new discretionary authority			11
4180 Budget authority, net (total)			22
4190 Outlays, net (total)			11

The mission of the Office of Technology Transitions (OTT) is to expand the commercial and public impact of the Department of Energy's investments. OTT serves a multi-disciplinary role across the Research, Development, Demonstration, and Deployment (RDD&D) continuum to support

the transition of our technologies to the market. OTT does so by providing public-private partnering support, market-informed analytics, and commercial adoption risk assessments. OTT manages DOE's ongoing lab-to-market and other technology commercialization activities, including the statutory Technology Commercialization Fund, the Energy I-Corps, the Energy Program for Innovation Clusters (EPIC), and the Lab Partnering Service. OTT stewards DOE technology transition activities, including policy reform, data collection and analyses, industry stakeholder convenings, and amplification of DOE technology transfer success stories across the DOE—including programs, field offices, and the National Laboratories and Production Facilities—as well as engaging with other Federal agencies to improve awareness of the benefits of engaging the DOE research enterprise.

Object Classification (in millions of dollars)

Identification code 089–0346–0–1–276	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent			4
11.9 Total personnel compensation			4
12.1 Civilian personnel benefits			1
25.1 Advisory and assistance services			4
25.2 Other services from non-Federal sources			6
25.3 Other goods and services from Federal sources			3
25.4 Operation and maintenance of facilities			4
99.9 Total new obligations, unexpired accounts			22

Employment Summary

Identification code 089–0346–0–1–276	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment			39

OFFICE OF CLEAN ENERGY DEMONSTRATIONS

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other expenses necessary for clean energy demonstrations in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, \$214,052,000, to remain available until expended: Provided, That of such amount, \$25,000,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

OFFICE OF CLEAN ENERGY DEMONSTRATIONS

■For an additional amount for "Office of Clean Energy Demonstrations", \$21,456,000,000, to remain available until expended: *Provided*, That the Office of Clean Energy Demonstrations, as authorized by section 41201 of division D of this Act, shall conduct administrative and project management responsibilities for the demonstration projects provided for under this heading in this Act: *Provided further*, That the Office of Clean Energy Demonstrations shall consult and coordinate with technology-specific program offices to ensure alignment of technology goals and avoid unnecessary duplication: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$355,000,000 shall be to carry out the Energy Storage Demonstration Pilot Grant Program, as authorized under section 3201(c) of the Energy Act of 2020 (42 U.S.C. 17232(c)): *Provided further*, That of the funds in the preceding proviso, \$88,750,000, to remain available until expended, shall be made available for fiscal year 2022, \$88,750,000, to remain available until expended, shall be made available for fiscal year 2023, \$88,750,000, to remain available until expended, shall be made available for fiscal year 2024, \$88,750,000, to remain available until expended, shall be made available for fiscal year 2025: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$150,000,000 to carry out the Long-duration Demonstration Initiative and Joint Program, as authorized under section 3201(d) of the Energy Act of 2020 (42 U.S.C. 17232(d)): *Provided further*, That of the funds in the preceding proviso, \$37,500,000, to remain available until expended, shall be made available

for fiscal year 2022, \$37,500,000, to remain available until expended, shall be made available for fiscal year 2023, \$37,500,000, to remain available until expended, shall be made available for fiscal year 2024, \$37,500,000, to remain available until expended, shall be made available for fiscal year 2025: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$2,477,000,000 shall be to carry out the Advanced Reactor Demonstration Program, as authorized under section 959A of the Energy Policy Act of 2005 (42 U.S.C. 16279a): *Provided further*, That of the funds in the preceding proviso, \$677,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2025: *Provided further*, That funds in the preceding proviso shall be for projects selected prior to the date of enactment of this Act: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$937,000,000 shall be to carry out the Carbon Capture Large-scale Pilot Projects, as authorized under section 962(b)(2)(B) of the Energy Policy Act of 2005 (42 U.S.C. 16292(b)(2)(B)): *Provided further*, That of the funds in the preceding proviso, \$387,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$150,000,000, to remain available until expended, shall be made available for fiscal year 2025: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$2,537,000,000 shall be for the Carbon Capture Demonstration Projects Program, as authorized under section 962(b)(2)(C) of the Energy Policy Act of 2005 (42 U.S.C. 16292(b)(2)(C)): *Provided further*, That of the funds in the preceding proviso, \$937,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$500,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$500,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$600,000,000, to remain available until expended, shall be made available for fiscal year 2025: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$500,000,000 shall be to carry out Industrial Emission Demonstration Projects, as authorized under section 454(d)(3) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17113(d)(3)): *Provided further*, That of the funds in the preceding proviso, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$150,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$150,000,000, to remain available until expended, shall be made available for fiscal year 2025: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$500,000,000 shall be to carry out the Clean Energy Demonstration Program on Current and Former Mine Land, as authorized under section 40342 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$100,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$8,000,000,000 shall be made for Regional Clean Hydrogen Hubs, as authorized under section 813 of the Energy Policy Act of 2005 (42 U.S.C. 16151 et seq.), as amended by section 40314 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$1,600,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$1,600,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$1,600,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$1,600,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$1,600,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$5,000,000,000 shall be for grants for the Program Upgrading Our Electric Grid and Ensuring Reliability and Resiliency, as authorized under section 40103(b) of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$1,000,000,000, to remain available until expended, shall be made available for

OFFICE OF CLEAN ENERGY DEMONSTRATIONS—Continued

fiscal year 2025, and \$1,000,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$1,000,000,000 shall be to carry out activities for energy improvement in rural and remote areas, as authorized under section 40103(c) of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$200,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$200,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That not later than 90 days after the date of enactment of this Act, the Secretary of Energy shall submit to the House and Senate Committees on Appropriations a detailed spend plan for fiscal year 2022: *Provided further*, That for each fiscal year through 2026, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code, the Secretary of Energy shall submit a detailed spend plan for that fiscal year: *Provided further*, That up to three percent of the amounts made available under this heading in this Act in each of fiscal years 2022 through 2026 shall be for program direction: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985. **■** (*Infrastructure Investments and Jobs Appropriations Act.*)

Program and Financing (in millions of dollars)

Identification code 089–2297–0–1–270	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0010 Clean Energy Demonstrations			112
0011 Program Direction			20
0013 Energy Improvement in Rural and Remote Areas		55	99
0015 Regional Clean Hydrogen Hubs		19	114
0017 Clean Energy Demonstration Program on Current and Former Mine Land		4	57
0019 Energy Storage Demonstration Pilot Grant Program		3	21
0021 Long-duration Demonstration Initiative and Joint Program		35	30
0023 Advanced Reactor Demonstration Program		303	456
0025 Carbon Capture Demonstration Projects Program		10	272
0027 Carbon Capture Large-scale Pilot Projects		24	277
0029 Industrial Emission Demonstration Projects		3	76
0031 Upgrading Our Electric Grid and Ensuring Reliability and Resiliency		154	713
0033 Program Direction - IJIA		62	100
0900 Total new obligations, unexpired accounts		672	2,347
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1			4,451
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation		5,123	214
Advance appropriations, discretionary:			
1170 Advance appropriation			4,423
1900 Budget authority (total)		5,123	4,637
1930 Total budgetary resources available		5,123	9,088
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year		4,451	6,741
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1			268
3010 New obligations, unexpired accounts		672	2,347
3020 Outlays (gross)		-404	-1,104
3050 Unpaid obligations, end of year		268	1,511
Memorandum (non-add) entries:			
3100 Obligated balance, start of year			268
3200 Obligated balance, end of year		268	1,511
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross		5,123	4,637
Outlays, gross:			
4010 Outlays from new discretionary authority		404	386
4011 Outlays from discretionary balances			718
4020 Outlays, gross (total)		404	1,104
4180 Budget authority, net (total)		5,123	4,637

4190 Outlays, net (total) 404 1,104

The FY 2023 request includes funding for the Office of Clean Energy Demonstrations (OCED), which was authorized and established through the Bipartisan Infrastructure Law (BIL). OCED's mission is to deliver clean energy technology demonstration projects at scale in partnership with the private sector to accelerate deployment, market adoption, and the equitable transition to a decarbonized energy system by 2035.

OCED is a technology-neutral office with expertise in large-scale energy project management and finance that leverages the existing technical expertise throughout the Department of Energy (DOE). OCED investments are part of a clear progression and transition between the research, development, and demonstration projects within the DOE technology offices and initial deployments supported by the private sector or DOE Loan Programs Offices, ensuring continuity of DOE support for clean energy technologies and systems. Funding decisions are made to support scalable outcomes leading to commercialization and deployment for greenhouse gas reductions, job creation, and achieving environmental justice and Justice40 Initiative priorities.

In FY 2023, OCED will support new demonstrations related to the integration of renewable and distributed energy systems. The goal of this new investment area is to support demonstration programs to address integration issues of renewable energy onto the transmission and distribution grids. Additionally, OCED will provide additional support for the Advanced Reactor Demonstration Program, as part of DOE's consolidation of support for these demonstration projects into OCED from the Office of Nuclear Energy (NE). This investment will complement the \$2.48 billion provided in BIL to continue these important projects.

In addition to the activities supported through OCED's annual appropriations, the organization will continue to support clean energy demonstrations through its execution of funding provided to OCED in BIL.

Object Classification (in millions of dollars)

Identification code 089–2297–0–1–270	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent		15	28
11.3 Other than full-time permanent		1	1
11.5 Other personnel compensation		1	1
11.9 Total personnel compensation		17	30
12.1 Civilian personnel benefits		5	8
21.0 Travel and transportation of persons		2	3
23.3 Communications, utilities, and miscellaneous charges		2	4
25.1 Advisory and assistance services		100	200
25.2 Other services from non-Federal sources		10	20
25.3 Other goods and services from Federal sources		5	10
25.4 Operation and maintenance of facilities		195	600
25.5 Research and development contracts		65	100
26.0 Supplies and materials		1	2
41.0 Grants, subsidies, and contributions		270	1,370
99.9 Total new obligations, unexpired accounts		672	2,347

Employment Summary

Identification code 089–2297–0–1–270	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment		121	224

OFFICE OF INDIAN ENERGY POLICY AND PROGRAMS

For necessary expenses for Indian Energy activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), \$150,039,000 to remain available until expended: Provided, That, of the amount appropriated under this heading, \$20,303,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0342-0-1-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0010 Direct program activity	33	32	122
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	21	10	.....
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	22	22	150
1930 Total budgetary resources available	43	32	150
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	10	.....	28
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	11	33	46
3010 New obligations, unexpired accounts	33	32	122
3020 Outlays (gross)	-11	-19	-110
3050 Unpaid obligations, end of year	33	46	58
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	11	33	46
3200 Obligated balance, end of year	33	46	58
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	22	22	150
Outlays, gross:			
4010 Outlays from new discretionary authority	1	1	90
4011 Outlays from discretionary balances	10	18	20
4020 Outlays, gross (total)	11	19	110
4180 Budget authority, net (total)	22	22	150
4190 Outlays, net (total)	11	19	110

Office of Indian Energy Policy and Programs (IE).—Directs, fosters, coordinates, and implements energy planning, education, management, and financial assistance programs that assist Tribes with clean energy development and infrastructure, capacity building, energy costs, and electrification of Indian lands and homes. IE coordinates programmatic activity across the Department related to development of clean energy resources on Indian lands, and works with other Federal government agencies, Indian Tribes, and Tribal organizations to promote Indian energy policies and initiatives. Through financial and technical assistance IE will empower American Indian and Alaskan Native nations to lead the transition to 100% clean energy, seven generation planning, and addressing energy access and energy poverty in Indian Country. A key focus will be on assisting Tribal Colleges and Universities to power their institutions with clean energy.

Object Classification (in millions of dollars)

Identification code 089-0342-0-1-271	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent	1	1	4
11.9 Total personnel compensation	1	1	4
12.1 Civilian personnel benefits	1	1	1
25.1 Advisory and assistance services	3	2	4
25.2 Other services from non-Federal sources	1	1	1
25.4 Operation and maintenance of facilities	1	1	1
41.0 Grants, subsidies, and contributions	26	26	111
99.9 Total new obligations, unexpired accounts	33	32	122

Employment Summary

Identification code 089-0342-0-1-271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	10	10	29

defense environmental cleanup activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion, and the purchase of one zero emission passenger motor vehicle, \$323,249,000, to remain available until expended: Provided, That, in addition, fees collected pursuant to subsection (b)(1) of section 6939f of title 42, United States Code, and deposited under this heading in fiscal year 2023 pursuant to section 309 of title III of division C of Public Law 116-94 are appropriated, to remain available until expended, for mercury storage costs: Provided further, That of the amount appropriated under this heading, \$123,438,000 shall be derived from the United States Enrichment Corporation Fund, to remain available until expended.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0315-0-1-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0002 Fast Flux Test Facility	3	3	3
0003 Gaseous Diffusion Plants	117	115	123
0004 Small Sites	118	111	105
0005 West Valley Demonstration Project	88	88	90
0006 Management and Storage of Elemental Mercury	1	2	2
0799 Total direct obligations	327	319	323
0801 Non-defense Environmental Cleanup (Reimbursable)	41	35	35
0900 Total new obligations, unexpired accounts	368	354	358
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	8	4	4
1021 Recoveries of prior year unpaid obligations	4	.....	.....
1070 Unobligated balance (total)	12	4	4
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	319	319	200
Spending authority from offsetting collections, discretionary:			
1700 Collected	41	35	35
1711 Spending authority from offsetting collections transferred from other accounts [486-4054] .....	.....	.....	123
1750 Spending auth from offsetting collections, disc (total)	41	35	158
1900 Budget authority (total)	360	354	358
1930 Total budgetary resources available	372	358	362
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	4	4	4
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	269	284	144
3010 New obligations, unexpired accounts	368	354	358
3020 Outlays (gross)	-349	-494	-430
3040 Recoveries of prior year unpaid obligations, unexpired	-4	.....	.....
3050 Unpaid obligations, end of year	284	144	72
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	269	284	144
3200 Obligated balance, end of year	284	144	72
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	360	354	358
Outlays, gross:			
4010 Outlays from new discretionary authority	193	258	298
4011 Outlays from discretionary balances	156	236	132
4020 Outlays, gross (total)	349	494	430
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	-1	.....	.....
4033 Non-Federal sources	-40	-35	-35
4040 Offsets against gross budget authority and outlays (total)	-41	-35	-35
4070 Budget authority, net (discretionary)	319	319	323
4080 Outlays, net (discretionary)	308	459	395
4180 Budget authority, net (total)	319	319	323
4190 Outlays, net (total)	308	459	395

NON-DEFENSE ENVIRONMENTAL CLEANUP

For Department of Energy expenses, including the purchase, construction, and acquisition of plant and capital equipment and other expenses necessary for non-

NON-DEFENSE ENVIRONMENTAL CLEANUP—Continued

The Non-Defense Environmental Cleanup program includes funds to manage and clean up sites used for civilian energy research and non-defense-related activities. These activities resulted in radioactive, hazardous, and mixed waste contamination that requires remediation, stabilization, or some other type of corrective action, as well as the decontamination and decommissioning of former research and production buildings and supporting infrastructure. The budget displays the cleanup program by site and activity.

West Valley Demonstration Project.—Funds waste disposition, building decontamination, and removal of non-essential facilities in the near-term.

Gaseous Diffusion Plants.—Funds surveillance and maintenance of the former Uranium Program facilities and manages legacy polychlorinated biphenyl contamination. The program also includes the operation of two depleted uranium hexafluoride conversion facilities at Paducah, Kentucky, and Portsmouth, Ohio, which are converting the depleted uranium hexafluoride into a more stable form for reuse or disposition.

Fast Flux Test Facility.—Funds the long-term surveillance and maintenance and eventual decontamination and decommissioning of the Fast Flux Test Facility, constructed and operated from the 1960s through 1980s.

Small Sites.—Funds cleanup, closure, and post-closure environmental activities at a number of geographic sites across the nation, including the Energy Technology Engineering Center and Moab, as well as non-defense activities at Idaho. Some sites are associated with other Department of Energy programs, particularly the Office of Science, and will have continuing missions after EM completes the cleanup. Others will transition to the Office of Legacy Management or private-sector entities for post-closure activities.

Object Classification (in millions of dollars)

Identification code 089–0315–0–1–271	2021 actual	2022 est.	2023 est.
Direct obligations:			
25.1 Advisory and assistance services	4	4	4
25.2 Other services from non-Federal sources	17	16	17
25.3 Other goods and services from Federal sources	1	1	1
25.4 Operation and maintenance of facilities	300	293	296
32.0 Land and structures	4	4	4
41.0 Grants, subsidies, and contributions	1	1	1
99.0 Direct obligations	327	319	323
99.0 Reimbursable obligations	41	35	35
99.9 Total new obligations, unexpired accounts	368	354	358

FOSSIL ENERGY AND CARBON MANAGEMENT

For Department of Energy expenses necessary in carrying out fossil energy and carbon management research and development activities, under the authority of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including the acquisition of interest, including defeasible and equitable interests in any real property or any facility or for plant or facility acquisition or expansion, and for conducting inquiries, technological investigations and research concerning the extraction, processing, use, and disposal of mineral substances without objectionable social and environmental costs (30 U.S.C. 3, 1602, and 1603), \$893,160,000, to remain available until expended: *Provided*, That of such amount \$70,291,000 shall be available until September 30, 2024, for program direction.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

FOSSIL ENERGY AND CARBON MANAGEMENT

For an additional amount for "Fossil Energy and Carbon Management", \$7,497,140,781, to remain available until expended: *Provided*, That of the amount provided under this heading in this Act, \$310,140,781 shall be to carry out activities under the Carbon Utilization Program, as authorized in section 969A of the Energy Policy Act of 2005 (42 U.S.C. 16298a), as amended by section 40302 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$41,000,000, to remain available until expended, shall be made available for fiscal

year 2022, \$65,250,000, to remain available until expended, shall be made available for fiscal year 2023, \$66,562,500, to remain available until expended, shall be made available for fiscal year 2024, \$67,940,625, to remain available until expended, shall be made available for fiscal year 2025, and \$69,387,656, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$100,000,000 shall be used to carry out the front-end engineering and design program out activities under the Carbon Capture Technology Program, as authorized in section 962 of the Energy Policy Act of 2005 (42 U.S.C. 16292), as amended by section 40303 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$20,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$20,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$20,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$20,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$20,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$2,500,000,000 shall be to carry out activities for the Carbon Storage Validation and Testing, as authorized section 963 of the Energy Policy Act of 2005 (42 U.S.C. 16293), as amended by section 40305 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$500,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$500,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$500,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$500,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$500,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act, \$3,500,000,000 shall be to carry out a program to develop four regional clean direct air capture hubs, as authorized under section 969D of the Energy Policy Act of 2005 (42 U.S.C. 16298d), as amended by section 40308 of division D of this Act: *Provided further*, That of the funds in the preceding proviso, \$700,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$700,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$700,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$700,000,000, to remain available until expended, shall be made available for fiscal year 2025, and \$700,000,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$15,000,000 shall be for precommercial direct air capture technology prize competitions, as authorized under section 969D(e)(2)(A) of the Energy Policy Act of 2005 (42 U.S.C. 16298d(e)(2)(A)): *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$100,000,000 shall be for commercial direct air capture technology prize competitions, as authorized under section 969D(e)(2)(B) of the Energy Policy Act of 2005 (42 U.S.C. 16298d(e)(2)(B)): *Provided further*, That for amounts identified in the preceding proviso, the Secretary shall enter pre-construction commitments with selected projects for future awards for qualified carbon dioxide capture: *Provided further*, That of the amount provided under this heading in this Act, \$140,000,000 shall be for a Rare Earth Elements Demonstration Facility, as authorized under section 7001 of the Energy Act of 2020 (42 U.S.C. 13344), as amended by section 40205 of division D of this Act: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$127,000,000 shall be to carry out rare earth mineral security activities, as authorized under section 7001(a) of the Energy Act of 2020 (42 U.S.C. 13344(a)): *Provided further*, That of the funds in the preceding proviso, \$23,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$24,200,000, to remain available until expended, shall be made available for fiscal year 2023, \$25,400,000, to remain available until expended, shall be made available for fiscal year 2024, \$26,600,000, to remain available until expended, shall be made available for fiscal year 2025, and \$27,800,000, to remain available until expended, shall be made available for fiscal year 2026: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$600,000,000 shall be to carry out critical material innovation, efficiency, and alternatives activities under section 7002(g) of the Energy Act of 2020 (30 U.S.C. 1606(g)): *Provided further*, That of the funds in the preceding proviso, \$230,000,000, to remain available until expended, shall be made available for fiscal year 2022, \$100,000,000, to remain available until expended, shall be made available for fiscal year 2023, \$135,000,000, to remain available until expended, shall be made available for fiscal year 2024, \$135,000,000, to remain available until expended, shall be made available for fiscal year 2025: *Provided further*, That of the amount provided under this heading in this Act and in addition to amounts otherwise made available for this purpose, \$75,000,000 shall be for the

Critical Material Supply Chain Research Facility, as authorized under section 7002(h) of the Energy Act of 2020 (30 U.S.C. 1606(h)): *Provided further*, That of the funds in the preceding proviso, \$40,000,000, to remain available until expended, shall be made available for fiscal year 2022, and \$35,000,000, to remain available until expended, shall be made available for fiscal year 2023: *Provided further*, That of the amount provided under this heading in this Act, \$30,000,000 shall be to carry out activities authorized in section 349(b)(2) of the Energy Policy Act of 2005 (42 U.S.C. 15907(b)(2)), as amended by section 40601 of division D of this Act: *Provided further*, That not later than 90 days after the date of enactment of this Act, the Secretary of Energy shall submit to the House and Senate Committees on Appropriations a detailed spend plan for fiscal year 2022: *Provided further*, That for each fiscal year through 2026, as part of the annual budget submission of the President under section 1105(a) of title 31, United States Code, the Secretary of Energy shall submit a detailed spend plan for that fiscal year: *Provided further*, That up to three percent of the amounts made available under this heading in this Act in each of fiscal years 2022 through 2026 shall be for program direction: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.] (*Infrastructure Investments and Jobs Appropriations Act.*)

Program and Financing (in millions of dollars)

Identification code 089–0213–0–1–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0002 Carbon Capture	80	126	163
0003 Carbon Storage	74	79	122
0004 Advanced Energy Systems	248	122	67
0005 Cross-Cutting Research	68	72	31
0006 Carbon Utilization .....	.....	23	50
0007 Carbon Dioxide Removal .....	.....	.....	65
0008 Carbon Capture, Utilization and Storage	15	.....	.....
0009 Critical Minerals .....	.....	.....	40
0010 Carbon Ore Processing .....	.....	.....	4
0012 Program Direction - Management	66	62	70
0013 Program Direction - NETL R&D	177	.....	.....
0017 Special Recruitment Program	1	1	1
0018 Emissions Mitigation .....	.....	.....	54
0019 Emissions Quantification .....	.....	.....	46
0020 Natural gas technologies	71	57	.....
0021 Unconventional FE Technologies	44	46	.....
0022 STEP (Supercritical CO2)	29	14	.....
0024 NETL Research and Operations .....	.....	83	83
0025 NETL Infrastructure .....	.....	55	55
0026 NETL IWG Coal and Power Communities and Economic Revitalization .....	.....	.....	3
0030 Transformational Coal Pilots .....	.....	10	.....
0031 Environmentally Prudent Development .....	.....	.....	13
0032 Natural Gas Hydrogen Research .....	.....	.....	26
0799 Total direct obligations	873	750	893
0801 Unavailable	2	.....	.....
0900 Total new obligations, unexpired accounts	875	750	893
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	353	226	2,063
1021 Recoveries of prior year unpaid obligations	13	.....	.....
1070 Unobligated balance (total)	366	226	2,063
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	750	750	893
1100 Appropriation (IIJA) .....	.....	1,837	.....
1120 Appropriations transferred to other accts [089–0222]	–18	.....	.....
1160 Appropriation, discretionary (total)	732	2,587	893
Advance appropriations, discretionary:			
1170 Advance appropriation .....	.....	.....	1,442
Spending authority from offsetting collections, discretionary:			
1700 Collected	3	.....	.....
1900 Budget authority (total)	735	2,587	2,335
1930 Total budgetary resources available	1,101	2,813	4,398
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	226	2,063	3,505
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	958	1,121	266
3010 New obligations, unexpired accounts	875	750	893
3020 Outlays (gross)	–699	–1,605	–1,067

3040 Recoveries of prior year unpaid obligations, unexpired	–13	.....	.....
3050 Unpaid obligations, end of year	1,121	266	92
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	958	1,121	266
3200 Obligated balance, end of year	1,121	266	92
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	735	2,587	2,335
Outlays, gross:			
4010 Outlays from new discretionary authority	143	484	400
4011 Outlays from discretionary balances	556	1,121	667
4020 Outlays, gross (total)	699	1,605	1,067
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources	–3	–2	–2
4040 Offsets against gross budget authority and outlays (total)	–3	–2	–2
Additional offsets against gross budget authority only:			
4052 Offsetting collections credited to expired accounts .....	.....	2	2
4060 Additional offsets against budget authority only (total) .....	.....	2	2
4070 Budget authority, net (discretionary)	732	2,587	2,335
4080 Outlays, net (discretionary)	696	1,603	1,065
4180 Budget authority, net (total)	732	2,587	2,335
4190 Outlays, net (total)	696	1,603	1,065

The Fossil Energy and Carbon Management (FECM) office conducts research, development, demonstration and deployment (RDD&D) that focuses on technologies to reduce carbon emissions and other environmental impacts of fossil fuel production and use, particularly the hardest-to-decarbonize applications in the electricity and industrial sectors. Additionally, the program advances technologies on carbon dioxide (CO2) removal (CDR) to reduce atmospheric and legacy emissions of CO2, and technologies that convert and durably store CO2 into value-added products. FECM recognizes that decarbonization is essential to meeting climate goals—100% carbon pollution free electricity by 2035 and net-zero greenhouse gas emissions economy-wide by 2050. FECM is also committed to improving the conditions of communities impacted by the legacy of fossil fuel use and to supporting a healthy economic transition that accelerates the growth of good-paying jobs.

Program activities funded through this account focus on: 1) demonstrating and deploying point source carbon capture; 2) Reducing methane emissions; 3) advancing carbon dioxide removal, conversion, transport, and storage; 4) advancing critical minerals, rare earth elements, and mine remediation; 5) supporting low-carbon industrial supply chains; 6) increasing efficient use of big data and artificial intelligence; 7) accelerating carbon-neutral hydrogen; 8) addressing the Energy Water Nexus; 9) investing in thoughtful transition strategies. Many of these activities are pursued in partnership with the National Energy Technology Laboratory (NETL), which also receives funding from this account.

Object Classification (in millions of dollars)

Identification code 089–0213–0–1–271	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	66	62	70
11.3 Other than full-time permanent	1	.....	1
11.5 Other personnel compensation	2	.....	2
11.9 Total personnel compensation	69	62	73
12.1 Civilian personnel benefits	25	.....	29
21.0 Other Costs for Transportation of Persons	1	.....	1
23.3 Communications, utilities, and miscellaneous charges	10	.....	10
25.1 Advisory and assistance services	142	.....	153
25.3 Purchase of Goods and Services from Government Accounts	7	.....	10
25.3 Other Contractual Services	2	.....	3
25.4 Operation and maintenance of facilities	74	29	75
25.5 Research and Development	494	630	522
25.7 Operation and maintenance of equipment	5	.....	6
26.0 Supplies and materials	1	.....	2
26.0 Pamphlets, Documents, Subscriptions and Publications	2	.....	3
31.0 Equipment	5	29	6
31.0 Non-Capitalized Personal Property	4	.....	.....
32.0 Land and structures	30	.....	.....
41.0 Grants, Subsidies, and Contributions	1	.....	.....

FOSSIL ENERGY AND CARBON MANAGEMENT—Continued

Object Classification—Continued

Identification code 089–0213–0–1–271	2021 actual	2022 est.	2023 est.
41.0 Other Grants Not Otherwise Classified	1		
99.0 Direct obligations	873	750	893
99.0 Reimbursable obligations	2		
99.9 Total new obligations, unexpired accounts	875	750	893

Employment Summary

Identification code 089–0213–0–1–271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	518	528	565

NATIONAL ENERGY TECHNOLOGY LABORATORY RESEARCH AND DEVELOPMENT

Program and Financing (in millions of dollars)

Identification code 089–2298–0–1–271	2021 actual	2022 est.	2023 est.
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1		3	3
Budget authority:			
Spending authority from offsetting collections, mandatory:			
1800 Collected	3		
1930 Total budgetary resources available	3	3	3
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	3	3	3
Budget authority and outlays, net:			
Mandatory:			
4090 Budget authority, gross	3		
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4120 Federal sources	–3		
4180 Budget authority, net (total)			
4190 Outlays, net (total)	–3		

NAVAL PETROLEUM AND OIL SHALE RESERVES

For Department of Energy expenses necessary to carry out naval petroleum and oil shale reserve activities, \$13,004,000, to remain available until expended: Provided, That notwithstanding any other provision of law, unobligated funds remaining from prior years shall be available for all naval petroleum and oil shale reserve activities.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0219–0–1–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Production and Operations	13	14	13
0799 Total direct obligations	13	14	13
0900 Total new obligations, unexpired accounts (object class 25.4)	13	14	13
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	4	4	4
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	13	14	13
1900 Budget authority (total)	13	14	13
1930 Total budgetary resources available	17	18	17
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	4	4	4

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	13	10	5
3010 New obligations, unexpired accounts	13	14	13
3020 Outlays (gross)	–16	–19	–15
3050 Unpaid obligations, end of year	10	5	3
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	13	10	5
3200 Obligated balance, end of year	10	5	3

Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross	13	14	13
Outlays, gross:			
4010 Outlays from new discretionary authority	2	9	8
4011 Outlays from discretionary balances	14	10	7
4020 Outlays, gross (total)	16	19	15
4180 Budget authority, net (total)	13	14	13
4190 Outlays, net (total)	16	19	15

This account funds environmental activities at Naval Petroleum Reserve 1 (NPR-1) in California (Elk Hills) and Naval Petroleum Reserve 3 (NPR-3) in Wyoming (Teapot Dome). Following the sale of the Government's interests in NPR-1 in California (Elk Hills), post-sale environmental assessment/remediation activities continue to be required by the legally binding agreements under the Corrective Action Consent Agreement with the State of California Department of Toxic Substances Control (DTSC). Program activities encompass execution of a technical baseline, interim measures, environmental sampling and analysis, corrective measures, waste removal and disposal, and confirmatory sampling. In FY 2023, funding will continue ongoing activities to attain release from the remaining environmental findings related to the sale of NPR-1. On January 30, 2015, the Department finalized the sale of the Teapot Dome Oilfield. The Department continues to oversee post-sale remediation activities and ground water sampling for the closure of the landfill in compliance with National Environmental Policy Act and Wyoming Department of Environmental Quality requirements.

Employment Summary

Identification code 089–0219–0–1–271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	2	2	2

STRATEGIC PETROLEUM RESERVE

For Department of Energy expenses necessary for Strategic Petroleum Reserve facility development and operations and program management activities pursuant to the Energy Policy and Conservation Act (42 U.S.C. 6201 et seq.), \$214,175,000, to remain available until expended.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

STRATEGIC PETROLEUM RESERVE

For an additional amount for "Strategic Petroleum Reserve", \$43,300,000, to remain available until expended, for necessary expenses related to damages caused by natural disasters. (Disaster Relief Supplemental Appropriations Act, 2022.)

Program and Financing (in millions of dollars)

Identification code 089–0218–0–1–274	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 SPR Management	22	20	28
0002 SPR Storage Facilities Development	182	168	164
0003 Emergency Appropriation		43	
0004 Northeast Gasoline Supply Reserve			22
0900 Total new obligations, unexpired accounts	204	231	214

Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	34	19	19
1021	Recoveries of prior year unpaid obligations	1		
1070	Unobligated balance (total)	35	19	19
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	188	188	214
1100	Appropriation [Emergency]		43	
1160	Appropriation, discretionary (total)	188	231	214
1930	Total budgetary resources available	223	250	233
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	19	19	19

Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	172	152	118
3010	New obligations, unexpired accounts	204	231	214
3020	Outlays (gross)	-223	-265	-236
3040	Recoveries of prior year unpaid obligations, unexpired	-1		
3050	Unpaid obligations, end of year	152	118	96
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	172	152	118
3200	Obligated balance, end of year	152	118	96

Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	188	231	214
Outlays, gross:				
4010	Outlays from new discretionary authority	65	125	118
4011	Outlays from discretionary balances	158	140	118
4020	Outlays, gross (total)	223	265	236
4180	Budget authority, net (total)	188	231	214
4190	Outlays, net (total)	223	265	236

The Strategic Petroleum Reserve (SPR) provides strategic and economic security against foreign and domestic disruptions in oil supplies via an emergency stockpile of crude oil. The program fulfills United States obligations under the International Energy Program, which commits the United States to support the International Energy Agency through its coordinated energy emergency response plans and provides a deterrent against energy supply disruptions. The FY 2023 Budget will support the SPR's operational readiness and drawdown capabilities of 4.4 MB/d. The program will perform cavern wellbore testing and maintenance activities to ensure the availability of the SPR's crude oil inventory. The FY 2023 Budget will continue to fund the Northeast Gasoline Supply Reserve which currently holds one million barrels of refined product in reserve.

Object Classification (in millions of dollars)

Identification code 089-0218-0-1-274				
2021 actual 2022 est. 2023 est.				
Direct obligations:				
11.1	Personnel compensation: Full-time permanent	12	12	12
12.1	Civilian personnel benefits	4	4	4
23.1	Rental payments to GSA	1	1	1
23.3	Communications, utilities, and miscellaneous charges	3	3	1
25.1	Advisory and assistance services	1	1	1
25.2	Other services from non-Federal sources	33	33	33
25.4	Operation and maintenance of facilities	150	134	162
32.0	Land and structures		43	
99.0	Direct obligations	204	231	214
99.9	Total new obligations, unexpired accounts	204	231	214

Employment Summary

Identification code 089-0218-0-1-274				
2021 actual 2022 est. 2023 est.				
1001	Direct civilian full-time equivalent employment	110	110	110
2001	Reimbursable civilian full-time equivalent employment	18	18	18

SPR PETROLEUM ACCOUNT

For the acquisition, transportation, and injection of petroleum products, and for other necessary expenses pursuant to the Energy Policy and Conservation Act of 1975, as amended (42 U.S.C. 6201 et seq.), sections 403 and 404 of the Bipartisan Budget Act of 2015 (42 U.S.C. 6241, 6239 note), section 32204 of the Fixing America's Surface Transportation Act (42 U.S.C. 6241 note), and section 30204 of the Bipartisan Budget Act of 2018 (42 U.S.C. 6241 note), \$8,000,000, to remain available until expended.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0233-0-1-274				
2021 actual 2022 est. 2023 est.				
Obligations by program activity:				
0001	SPR Petroleum Account	3	6	8
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	9	9	4
1001	Discretionary unobligated balance brought fwd, Oct 1	4	6	
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	1	1	8
Spending authority from offsetting collections, discretionary:				
1700	Collected	2		
1900	Budget authority (total)	3	1	8
1930	Total budgetary resources available	12	10	12
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	9	4	4
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	25	22	7
3010	New obligations, unexpired accounts	3	6	8
3020	Outlays (gross)	-6	-21	-5
3050	Unpaid obligations, end of year	22	7	10
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	25	22	7
3200	Obligated balance, end of year	22	7	10
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	3	1	8
Outlays, gross:				
4010	Outlays from new discretionary authority			5
4011	Outlays from discretionary balances	6	21	
4020	Outlays, gross (total)	6	21	5
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4033	Non-Federal sources	-2		
4040	Offsets against gross budget authority and outlays (total)	-2		
4180	Budget authority, net (total)	1	1	8
4190	Outlays, net (total)	4	21	5

The SPR Petroleum Account funds activities related to the acquisition, transportation, and injection of petroleum products into the Strategic Petroleum Reserve (SPR), as well as costs related to the drawdown, sale, and delivery of petroleum products from the Reserve.

Object Classification (in millions of dollars)

Identification code 089-0233-0-1-274				
2021 actual 2022 est. 2023 est.				
Direct obligations:				
23.3	Communications, utilities, and miscellaneous charges	1		1
25.2	Other services from non-Federal sources	2	6	7
99.9	Total new obligations, unexpired accounts	3	6	8

ENERGY SECURITY AND INFRASTRUCTURE MODERNIZATION FUND

Special and Trust Fund Receipts (in millions of dollars)

Identification code 089-5615-0-2-274	2021 actual	2022 est.	2023 est.
0100 Balance, start of year	567		
0198 Reconciliation adjustment	-567		
0199 Balance, start of year			
Receipts:			
Current law:			
1130 Proceeds from Sale of Oil, Energy Security and Infrastructure Modernization Fund	450		
2000 Total: Balances and receipts	450		
Appropriations:			
Current law:			
2101 Energy Security and Infrastructure Modernization Fund	-450		
5099 Balance, end of year			

Program and Financing (in millions of dollars)

Identification code 089-5615-0-2-274	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0010 Energy security and infrastructure modernization	354	109	
0900 Total new obligations, unexpired accounts (object class 25.4)	354	109	
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	13	109	
Budget authority:			
Appropriations, discretionary:			
1101 Appropriation (special or trust)	450		
1900 Budget authority (total)	450		
1930 Total budgetary resources available	463	109	
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	109		
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	731	975	666
3010 New obligations, unexpired accounts	354	109	
3020 Outlays (gross)	-110	-418	-400
3050 Unpaid obligations, end of year	975	666	266
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	731	975	666
3200 Obligated balance, end of year	975	666	266
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	450		
Outlays, gross:			
4011 Outlays from discretionary balances	110	418	400
4180 Budget authority, net (total)	450		
4190 Outlays, net (total)	110	418	400

The Energy Security and Infrastructure Modernization Fund was established in Section 404 of the Bipartisan Budget Act of 2015 to finance modernization of the Strategic Petroleum Reserve (SPR). Revenue raised through sales of SPR crude oil will support Life Extension Phase 2 project investments needed to ensure the SPR can maintain its operational readiness capability, meet its mission requirements, and operate in an environmentally responsible manner. The CARES Act extended the Department's authority to sell oil in support of modernization from FY 2020 to FY 2022, and DOE conducted its final sale in FY 2021, thus no further appropriations are requested in FY 2023. Funds in the ESIM account will be used for the Life Extension Phase II (LE2) SPR infrastructure modernization project.

ENERGY INFORMATION ADMINISTRATION

For Department of Energy expenses necessary in carrying out the activities of the Energy Information Administration, \$144,480,000, to remain available until expended.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing

Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0216-0-1-276	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Obligations by Program Activity	127	127	144
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	3	3	3
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	127	127	144
1930 Total budgetary resources available	130	130	147
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	3	3	3
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	42	44	48
3010 New obligations, unexpired accounts	127	127	144
3020 Outlays (gross)	-125	-123	-139
3050 Unpaid obligations, end of year	44	48	53
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	42	44	48
3200 Obligated balance, end of year	44	48	53
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	127	127	144
Outlays, gross:			
4010 Outlays from new discretionary authority	87	89	101
4011 Outlays from discretionary balances	38	34	38
4020 Outlays, gross (total)	125	123	139
4180 Budget authority, net (total)	127	127	144
4190 Outlays, net (total)	125	123	139

The U.S. Energy Information Administration (EIA) is the statistical and analytical agency within the U.S. Department of Energy. EIA collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment. As the nation's premier source of energy information, EIA conducts a data collection program covering the full spectrum of energy sources, end uses, and energy flows; generates short- and long-term domestic and international energy forecasts and projections; and performs timely, informative energy analyses. The FY 2023 request enables EIA to continue statistical and analysis activities that produce reports critical to the nation, address emerging information needs such as those identified in the Bipartisan Infrastructure Law (Infrastructure Investment and Jobs Act, P.L. 117-58), and expand EIA's energy consumption survey program to collect new data for the populated U.S. territories.

Object Classification (in millions of dollars)

Identification code 089-0216-0-1-276	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	42	42	43
11.3 Other than full-time permanent	1	1	1
11.5 Other personnel compensation	1	1	1
11.9 Total personnel compensation	44	44	45
12.1 Civilian personnel benefits	15	15	16
23.3 Communications, utilities, and miscellaneous charges	3	3	4
25.1 Advisory and assistance services	50	50	59
25.3 Purchase of goods and services from Government Accounts	8	8	9
25.3 Other Contractual Services	1	1	2
26.0 Pamphlets, Documents, Subscriptions and Publications	3	3	4
31.0 Equipment	2	2	3
41.0 Grants, subsidies, and contributions	1	1	2
99.9 Total new obligations, unexpired accounts	127	127	144

Employment Summary

Identification code 089–0216–0–1–276	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	316	366	366

FEDERAL ENERGY REGULATORY COMMISSION**SALARIES AND EXPENSES**

For expenses necessary for the Federal Energy Regulatory Commission to carry out the provisions of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), including services as authorized by 5 U.S.C. 3109, official reception and representation expenses not to exceed \$3,000, and the hire of passenger motor vehicles, \$508,400,000, to remain available until expended: Provided, That notwithstanding any other provision of law, not to exceed \$508,400,000 of revenues from fees and annual charges, and other services and collections in fiscal year 2023 shall be retained and used for expenses necessary in this account, and shall remain available until expended: Provided further, That the sum herein appropriated from the general fund shall be reduced as revenues are received during fiscal year 2023 so as to result in a final fiscal year 2023 appropriation from the general fund estimated at not more than \$0.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0212–0–1–276	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0801 Ensure Just and Reasonable Rates, Terms & Conditions	200	195	227
0802 Promote Safe, Reliable, Secure & Efficient Infrastructure	149	144	173
0803 Mission Support through Organizational Excellence	90	88	108
0900 Total new obligations, unexpired accounts	439	427	508
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	52	23	.....
1021 Recoveries of prior year unpaid obligations	6	.....	.....
1070 Unobligated balance (total)	58	23	.....
Budget authority:			
Spending authority from offsetting collections, discretionary:			
1700 Collected	404	404	508
1930 Total budgetary resources available	462	427	508
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	23	.....	.....
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	91	115	93
3010 New obligations, unexpired accounts	439	427	508
3020 Outlays (gross)	–409	–449	–527
3040 Recoveries of prior year unpaid obligations, unexpired	–6	.....	.....
3050 Unpaid obligations, end of year	115	93	74
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	91	115	93
3200 Obligated balance, end of year	115	93	74
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	404	404	508
Outlays, gross:			
4010 Outlays from new discretionary authority	294	364	457
4011 Outlays from discretionary balances	115	85	70
4020 Outlays, gross (total)	409	449	527
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4034 Offsetting governmental collections	–404	–404	–508
4180 Budget authority, net (total) .....	.....	.....	.....
4190 Outlays, net (total)	5	45	19
Memorandum (non-add) entries:			
5090 Unexpired unavailable balance, SOY: Offsetting collections	15	15	15
5092 Unexpired unavailable balance, EOY: Offsetting collections	15	15	15

The Federal Energy Regulatory Commission (FERC or the Commission) is an independent agency that regulates the transmission and wholesale sale of electricity and natural gas in interstate commerce, as well as the transportation of oil by pipelines in interstate commerce. FERC also reviews proposals to build interstate natural gas pipelines, natural gas storage projects, and liquefied natural gas (LNG) terminals, and FERC licenses non-federal hydropower projects. The Commission assists consumers in obtaining reliable, safe, secure, and economically efficient energy services at a reasonable cost through appropriate regulatory and market means, and collaborative efforts. Regulated entities pay fees and charges sufficient to recover the Commission's full cost of operations.

Ensure Just and Reasonable Rates, Terms, and Conditions.—In carrying out its regulatory role, FERC uses a range of ratemaking activities, leveraging both regulatory and market means. FERC establishes and applies rules and policies that will result in just, reasonable, and not unduly discriminatory or preferential rates, terms, and conditions of jurisdictional service. The Commission fulfills this responsibility by determining whether FERC rules and policies need to be added or changed, and by analyzing and acting on filings in a fair, clear, and timely manner.

Oversight, surveillance and enforcement are essential complements to the Commission's approach to ensure that rates, terms and conditions of service are just and reasonable and not unduly discriminatory or preferential. The Federal Power Act and the Natural Gas Act, along with other statutory authorities, gives FERC oversight and enforcement responsibilities that focus on promoting compliance of regulated entities and detecting and deterring market manipulation and other market violations. The Commission assesses compliance and financial filings of regulated entities and monitors market activity and explores potential violations.

Ensure Safe, Reliable, and Secure Infrastructure Consistent with the Public Interest.—The Commission plays an important role to promote infrastructure that is safe and reliable, both physically and cyber-secure, and consistent with the public interest. Infrastructure for which FERC approval is required includes interstate natural gas pipelines and storage projects, LNG facilities, and non-federal hydropower. In addition, the Commission has authority to site electric transmission facilities in certain circumstances. The Commission reviews natural gas and hydropower infrastructure proposals to facilitate benefits to the nation. FERC conducts thorough and timely technical review of applications to construct, operate, or modify natural gas and hydropower infrastructure. The Commission also assesses compliance with environmental mitigation conditions in FERC orders during construction and operation of natural gas and hydropower infrastructure.

The Commission also has an important role in minimizing risks to the public associated with FERC-jurisdictional energy infrastructure. FERC conducts comprehensive and timely inspections of hydropower and LNG facilities to ensure compliance. The Commission protects and improves the reliable and secure operation of the Bulk-Power System through mandatory and enforceable reliability standards. The Commission also protects FERC-jurisdictional energy infrastructure through collaboration and sharing of best practices.

Provide Mission Support through Organizational Excellence.—The public interest is best served when the Commission operates in an efficient, responsive and transparent manner. FERC pursues this by maintaining processes and providing services that enable FERC offices to manage resources effectively and efficiently. The Commission also provides tools and services that equip employees to drive success and accomplish the agency's mission. FERC will continue to make investments in its people, information technology (IT) resources, and facilities.

The Commission promotes transparency and equity, open communication, and a high standard of ethics to facilitate trust and understanding of FERC's activities. FERC supports this by maintaining legal and other processes in accordance with the principles of due process, fairness, and integrity. FERC considers matters involving environmental justice and equity consistent with its statutory authority. In particular, the Commission has a strong

FEDERAL ENERGY REGULATORY COMMISSION—Continued

commitment to working with affected communities, including environmental justice communities and landowners who may be directly impacted by Commission decisions on jurisdictional infrastructure proposals. The Commission also promotes understanding, participation, and engagement with the public, stakeholders, Tribes, and jurisdictional entities. The Commission will increase its engagement with the public through its newly established Office of Public Participation.

Object Classification (in millions of dollars)

Identification code 089–0212–0–1–276	2021 actual	2022 est.	2023 est.
Reimbursable obligations:			
Personnel compensation:			
11.1 Full-time permanent	194	201	218
11.3 Other than full-time permanent	4	4	4
11.5 Other personnel compensation	6	6	6
11.9 Total personnel compensation	204	211	228
12.1 Civilian personnel benefits	71	76	82
21.0 Travel and transportation of persons	1	2	4
23.1 Rental payments to GSA	32	34	33
23.2 Rental payments to others	1	1	1
23.3 Communications, utilities, and miscellaneous charges	2	3	5
24.0 Printing and reproduction	1	1	2
25.1 Advisory and assistance services	15	17	25
25.2 Other services from non-Federal sources	15	17	19
25.3 Other goods and services from Federal sources	2	2	2
25.4 Operation and maintenance of facilities	2	2	2
25.7 Operation and maintenance of equipment	51	50	58
26.0 Supplies and materials	5	5	5
31.0 Equipment	10	5	34
32.0 Land and structures	27		7
99.0 Reimbursable obligations	439	426	507
99.5 Adjustment for rounding		1	1
99.9 Total new obligations, unexpired accounts	439	427	508

Employment Summary

Identification code 089–0212–0–1–276	2021 actual	2022 est.	2023 est.
2001 Reimbursable civilian full-time equivalent employment	1,455	1,465	1,508

CLEAN COAL TECHNOLOGY

Program and Financing (in millions of dollars)

Identification code 089–0235–0–1–271	2021 actual	2022 est.	2023 est.
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	2	2	2
1930 Total budgetary resources available	2	2	2
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	2	2	2
4180 Budget authority, net (total)			
4190 Outlays, net (total)			

The Clean Coal Technology Program was established in the 1980s to perform commercial-scale demonstrations of advanced coal-based technologies. All projects have concluded and only closeout activities remain.

ULTRA-DEEPWATER AND UNCONVENTIONAL NATURAL GAS AND OTHER PETROLEUM RESEARCH FUND

Program and Financing (in millions of dollars)

Identification code 089–5523–0–2–271	2021 actual	2022 est.	2023 est.
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	7	7	7
1930 Total budgetary resources available	7	7	7
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	7	7	7

4180 Budget authority, net (total)			
4190 Outlays, net (total)			

The Energy Policy Act of 2005 (Public Law 109–58) created a mandatory Ultra-Deepwater and Unconventional Natural Gas and Other Petroleum Research program beginning in 2007. Subtitle J of Title IX of the Energy Policy Act of 2005 (42 U.S.C. 16371 et seq.) was repealed and all unobligated balances in this account were rescinded by the Bipartisan Budget Control Act of FY 2013.

PAYMENTS TO STATES UNDER FEDERAL POWER ACT

Special and Trust Fund Receipts (in millions of dollars)

Identification code 089–5105–0–2–806	2021 actual	2022 est.	2023 est.
0100 Balance, start of year			
Receipts:			
Current law:			
1110 Licenses under Federal Power Act from Public Lands and National Forests, Payment to States (37 1/2%)	6	5	6
2000 Total: Balances and receipts	6	5	6
Appropriations:			
Current law:			
2101 Payments to States under Federal Power Act	–6	–5	–6
5099 Balance, end of year			

Program and Financing (in millions of dollars)

Identification code 089–5105–0–2–806	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Payments to States under Federal Power Act (Direct)	6	5	6
0900 Total new obligations, unexpired accounts (object class 41.0)	6	5	6

Budgetary resources:

Budget authority:			
Appropriations, mandatory:			
1201 Appropriation (special or trust fund)	6	5	6
1930 Total budgetary resources available	6	5	6

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	3		
3010 New obligations, unexpired accounts	6	5	6
3020 Outlays (gross)	–9	–5	–6
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	3		

Budget authority and outlays, net:

Mandatory:			
4090 Budget authority, gross	6	5	6
Outlays, gross:			
4100 Outlays from new mandatory authority	6	5	6
4101 Outlays from mandatory balances	3		
4110 Outlays, gross (total)	9	5	6
4180 Budget authority, net (total)	6	5	6
4190 Outlays, net (total)	9	5	6

The States are paid 37.5 percent of the receipts from licenses for occupancy and use of national forests and public lands within their boundaries issued by the Federal Energy Regulatory Commission (16 U.S.C. 810).

NORTHEAST HOME HEATING OIL RESERVE

For Department of Energy expenses necessary for Northeast Home Heating Oil Reserve storage, operation, and management activities pursuant to the Energy Policy and Conservation Act (42 U.S.C. 6201 et seq.), \$7,000,000, to remain available until expended.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Special and Trust Fund Receipts (in millions of dollars)

Identification code 089-5369-0-2-274	2021 actual	2022 est.	2023 est.
0100 Balance, start of year	1	1	1
2000 Total: Balances and receipts	1	1	1
5099 Balance, end of year	1	1	1

Program and Financing (in millions of dollars)

Identification code 089-5369-0-2-274	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 NEHHOR	6	7	7
0900 Total new obligations, unexpired accounts (object class 25.2)	6	7	7
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	5	6	6
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	7	7	7
1930 Total budgetary resources available	12	13	13
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	6	6	6
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	4	3	1
3010 New obligations, unexpired accounts	6	7	7
3020 Outlays (gross)	-7	-9	-7
3050 Unpaid obligations, end of year	3	1	1
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	4	3	1
3200 Obligated balance, end of year	3	1	1
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	7	7	7
Outlays, gross:			
4010 Outlays from new discretionary authority	1	6	6
4011 Outlays from discretionary balances	6	3	1
4020 Outlays, gross (total)	7	9	7
4180 Budget authority, net (total)	7	7	7
4190 Outlays, net (total)	7	9	7

The Northeast Home Heating Oil Reserve (NEHHOR) was established to provide an emergency supply of home heating oil for the Northeast States during times of inventory shortages and significant threats to immediate supply. NEHHOR currently holds one million barrels of ultra-low sulfur diesel oil in reserve.

NUCLEAR WASTE DISPOSAL

For Department of Energy expenses necessary for activities to carry out the purposes of the Nuclear Waste Policy Act of 1982, Public Law 97-425, as amended, \$10,205,000, to remain available until expended, to be derived from the Nuclear Waste Fund.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Special and Trust Fund Receipts (in millions of dollars)

Identification code 089-5227-0-2-271	2021 actual	2022 est.	2023 est.
0100 Balance, start of year	42,172	43,847	45,901
Receipts:			
Current law:			
1130 Nuclear Waste Disposal Fund		371	371
1140 Earnings on Investments, Nuclear Waste Disposal Fund	1,687	1,695	1,773
1199 Total current law receipts	1,687	2,066	2,144
1999 Total receipts	1,687	2,066	2,144
2000 Total: Balances and receipts	43,859	45,913	48,045

Appropriations:

Current law:			
2101 Nuclear Waste Disposal	-8	-8	-10
2101 Salaries and Expenses	-4	-4	-4
2199 Total current law appropriations	-12	-12	-14
2999 Total appropriations	-12	-12	-14
5099 Balance, end of year	43,847	45,901	48,031

Program and Financing (in millions of dollars)

Identification code 089-5227-0-2-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Interim Storage and Nuclear Waste Fund Oversight	21	28	10
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	3	10	10
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	20	20	
1101 Appropriation (special or trust)	8	8	10
1160 Appropriation, discretionary (total)	28	28	10
1930 Total budgetary resources available	31	38	20
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	10	10	10
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	4	16	20
3010 New obligations, unexpired accounts	21	28	10
3020 Outlays (gross)	-9	-24	-17
3050 Unpaid obligations, end of year	16	20	13
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	4	16	20
3200 Obligated balance, end of year	16	20	13
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	28	28	10
Outlays, gross:			
4010 Outlays from new discretionary authority	8	11	4
4011 Outlays from discretionary balances	1	13	13
4020 Outlays, gross (total)	9	24	17
4180 Budget authority, net (total)	28	28	10
4190 Outlays, net (total)	9	24	17
Memorandum (non-add) entries:			
5000 Total investments, SOY: Federal securities: Par value	54,666	55,319	57,357
5001 Total investments, EOY: Federal securities: Par value	55,319	57,357	59,480

The mission of the Nuclear Waste Fund Oversight program is to ensure the continued safety of the Yucca Mountain site through activities such as security, maintenance, and environmental requirements, and continued oversight for the Nuclear Waste Fund including the fiduciary responsibility under the Nuclear Waste Policy Act of 1982.

Object Classification (in millions of dollars)

Identification code 089-5227-0-2-271	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent		3	4
11.9 Total personnel compensation		3	4
12.1 Civilian personnel benefits		2	2
25.1 Advisory and assistance services	21	23	4
99.9 Total new obligations, unexpired accounts	21	28	10

Employment Summary

Identification code 089-5227-0-2-271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment		24	27

URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND

For Department of Energy expenses necessary in carrying out uranium enrichment facility decontamination and decommissioning, remedial actions, and other activities of title II of the Atomic Energy Act of 1954, and title X, subtitle A, of the Energy Policy Act of 1992, \$822,421,000, to be derived from the Uranium Enrichment Decontamination and Decommissioning Fund, to remain available until expended, of which \$24,400,000 shall be available in accordance with title X, subtitle A, of the Energy Policy Act of 1992.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Special and Trust Fund Receipts (in millions of dollars)

Identification code 089–5231–0–2–271	2021 actual	2022 est.	2023 est.
0100 Balance, start of year	565	29	31
Receipts:			
Current law:			
1140 Earnings on Investments, Decontamination and Decommissioning Fund	14	2	2
1140 General Fund Payment – Defense, Decontamination and Decommissioning Fund			417
1199 Total current law receipts	14	2	419
1999 Total receipts	14	2	419
2000 Total: Balances and receipts	579	31	450
Appropriations:			
Current law:			
2101 Uranium Enrichment Decontamination and Decommissioning Fund	–550		–417
5099 Balance, end of year	29	31	33

Program and Financing (in millions of dollars)

Identification code 089–5231–0–2–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Oak Ridge	135	135	93
0002 Paducah	257	240	199
0003 Portsmouth	415	430	480
0004 Pension and Community and Regulatory Support	31	31	25
0005 Title X Uranium/Thorium Reimbursement Program	5	5	25
0900 Total new obligations, unexpired accounts	843	841	822
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	10	10	10
1021 Recoveries of prior year unpaid obligations	1		
1033 Recoveries of prior year paid obligations	1		
1070 Unobligated balance (total)	12	10	10
Budget authority:			
Appropriations, discretionary:			
1101 Appropriation (special or trust)	550		417
1711 Spending authority from offsetting collections, discretionary: from other accounts [486–4054]	291	841	405
1900 Budget authority (total)	841	841	822
1930 Total budgetary resources available	853	851	832
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	10	10	10
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	306	335	242
3010 New obligations, unexpired accounts	843	841	822
3020 Outlays (gross)	–813	–934	–828
3040 Recoveries of prior year unpaid obligations, unexpired	–1		
3050 Unpaid obligations, end of year	335	242	236
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	306	335	242
3200 Obligated balance, end of year	335	242	236
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	841	841	822
Outlays, gross:			
4010 Outlays from new discretionary authority	560	589	576

4011 Outlays from discretionary balances	253	345	252
4020 Outlays, gross (total)	813	934	828
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources	–1		
Additional offsets against gross budget authority only:			
4053 Recoveries of prior year paid obligations, unexpired accounts	1		
4070 Budget authority, net (discretionary)	841	841	822
4080 Outlays, net (discretionary)	812	934	828
4180 Budget authority, net (total)	841	841	822
4190 Outlays, net (total)	812	934	828

Memorandum (non-add) entries:

5000 Total investments, SOY: Federal securities: Par value	851	344	356
5001 Total investments, EOY: Federal securities: Par value	344	356	356

Decontamination and Decommissioning Activities.—Funds: 1) projects to decontaminate, decommission, and remediate the sites and facilities of the gaseous diffusion plants at Portsmouth, Ohio; Paducah, Kentucky; and East Tennessee Technology Park, Oak Ridge, Tennessee and; 2) pensions and post-retirement medical benefits for active and inactive gaseous diffusion plant workers.

Uranium and Thorium Reimbursement Program.—Provides reimbursement to uranium and thorium licensees for the Government's share of cleanup costs pursuant to Title X of the Energy Policy Act of 1992.

Object Classification (in millions of dollars)

Identification code 089–5231–0–2–271	2021 actual	2022 est.	2023 est.
Direct obligations:			
25.1 Advisory and assistance services	1	1	1
25.2 Other services from non-Federal sources	11	11	11
25.4 Operation and maintenance of facilities	765	763	746
32.0 Land and structures	63	63	61
41.0 Grants, subsidies, and contributions	3	3	3
99.9 Total new obligations, unexpired accounts	843	841	822

ISOTOPE PRODUCTION AND DISTRIBUTION PROGRAM FUND

Program and Financing (in millions of dollars)

Identification code 089–4180–0–3–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0801 Isotope Production and Distribution Reimbursable program	133	126	126
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	21	5	5
Budget authority:			
Spending authority from offsetting collections, discretionary:			
1700 Collected	117	126	126
1930 Total budgetary resources available	138	131	131
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	5	5	5
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	112	132	136
3010 New obligations, unexpired accounts	133	126	126
3020 Outlays (gross)	–113	–122	–144
3050 Unpaid obligations, end of year	132	136	118
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	112	132	136
3200 Obligated balance, end of year	132	136	118
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	117	126	126
Outlays, gross:			
4010 Outlays from new discretionary authority	33	38	38
4011 Outlays from discretionary balances	80	84	106
4020 Outlays, gross (total)	113	122	144

Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources	-78	-56	-56
4033	Non-Federal sources	-39	-70	-70
4040	Offsets against gross budget authority and outlays (total)	-117	-126	-126
4080	Outlays, net (discretionary)	-4	-4	18
4180	Budget authority, net (total)			
4190	Outlays, net (total)	-4	-4	18

Object Classification (in millions of dollars)

Identification code 089-4180-0-3-271		2021 actual	2022 est.	2023 est.
Reimbursable obligations:				
25.4	Operation and maintenance of facilities	117	110	110
31.0	Equipment	7	7	7
41.0	Grants, subsidies, and contributions	9	9	9
99.0	Reimbursable obligations	133	126	126
99.9	Total new obligations, unexpired accounts	133	126	126

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING LOAN PROGRAM

For Department of Energy administrative expenses necessary in carrying out the Advanced Technology Vehicles Manufacturing Loan Program, \$9,800,000, to remain available until September 30, 2024.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0322-0-1-272		2021 actual	2022 est.	2023 est.
Obligations by program activity:				
Credit program obligations:				
0701	Direct loan subsidy		236	1,951
0705	Reestimates of direct loan subsidy	9		
0706	Interest on reestimates of direct loan subsidy	6		
0709	Administrative expenses	5	10	10
0900	Total new obligations, unexpired accounts	20	246	1,961
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	4,338	2,429	2,188
Budget authority:				
Appropriations, discretionary:				
1100	Appropriation	5	5	10
1131	Unobligated balance of appropriations permanently reduced	-1,908		
1160	Appropriation, discretionary (total)	-1,903	5	10
Appropriations, mandatory:				
1200	Appropriation	14		
1900	Budget authority (total)	-1,889	5	10
1930	Total budgetary resources available	2,449	2,434	2,198
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	2,429	2,188	237
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	4	3	197
3010	New obligations, unexpired accounts	20	246	1,961
3020	Outlays (gross)	-19	-52	-211
3041	Recoveries of prior year unpaid obligations, expired	-2		
3050	Unpaid obligations, end of year	3	197	1,947
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	4	3	197
3200	Obligated balance, end of year	3	197	1,947
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	-1,903	5	10
Outlays, gross:				
4011	Outlays from discretionary balances	5	52	211
Mandatory:				
4090	Budget authority, gross	14		
Outlays, gross:				
4100	Outlays from new mandatory authority	14		

4180	Budget authority, net (total)	-1,889	5	10
4190	Outlays, net (total)	19	52	211

Summary of Loan Levels, Subsidy Budget Authority and Outlays by Program (in millions of dollars)

Identification code 089-0322-0-1-272		2021 actual	2022 est.	2023 est.
Direct loan levels supportable by subsidy budget authority:				
115001	Advanced Vehicle Manufacturing Loans .....	.....	4,890	12,829
Direct loan subsidy (in percent):				
132001	Advanced Vehicle Manufacturing Loans .....	.....	4.83	15.21
132999	Weighted average subsidy rate	0.00	4.83	15.21
Direct loan subsidy budget authority:				
133001	Advanced Vehicle Manufacturing Loans .....	.....	236	1,951
Direct loan subsidy outlays:				
134001	Advanced Vehicle Manufacturing Loans .....	.....	47	204
Direct loan reestimates:				
135001	Advanced Vehicle Manufacturing Loans	14	-11	.....
Administrative expense data:				
3580	Outlays from balances	1	5	7

Section 136 of the Energy Independence and Security Act of 2007 (EISA) established a direct loan program to support the development of advanced technology vehicles and associated components in the United States, known as the Advanced Technology Vehicles Manufacturing (ATVM) Loan Program. The ATVM Loan Program provides loans to advanced technology vehicle and part manufacturers for the cost of reequipping, expanding, or establishing manufacturing facilities in the United States to produce advanced technology vehicles or qualified components and for associated engineering integration costs.

The Consolidated Security, Disaster, Assistance, and Continuing Appropriation Act of 2009 appropriated \$7.5 billion for credit subsidy costs to support a maximum of \$25 billion in loans under the ATVM Loan Program. Per EISA subsection (d)(1), the full credit subsidy cost must be paid using appropriated funds. Currently, the program has \$17.7 billion in uncommitted loan authority and \$2.4 billion in unobligated credit subsidy available to support new projects.

The Bipartisan Infrastructure Law authorized an expanded scope of advanced technology vehicle modes eligible for ATVM loans, including advanced medium- and heavy-duty vehicles, locomotives, maritime vessels, aircraft, and hyperloop technology. The FY 2023 Budget proposes to enable the use of existing appropriated authority to support projects eligible under the expanded scope.

In FY 2023, LPO requests \$9.8 million to originate ATVM direct loans and monitor the program's growing portfolio. While the FY 2023 Budget Request does not request new loan authority, LPO anticipates utilizing all remaining ATVM loan authority by the end of FY 2023—closing approximately \$5 billion in loans in FY 2022 and \$13 billion in FY 2023.

Object Classification (in millions of dollars)

Identification code 089-0322-0-1-272		2021 actual	2022 est.	2023 est.
Direct obligations:				
11.1	Personnel compensation: Full-time permanent	2	3	4
12.1	Below threshold		1	2
25.1	Advisory and assistance services	3	3	3
25.3	Other goods and services from Federal sources	1	3	1
41.0	Grants, subsidies, and contributions	14	236	1,951
99.0	Direct obligations	20	246	1,961
99.9	Total new obligations, unexpired accounts	20	246	1,961

Employment Summary

Identification code 089-0322-0-1-272	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	13	20	28

ADVANCED TECHNOLOGY VEHICLES MANUFACTURING DIRECT LOAN FINANCING
ACCOUNT

Program and Financing (in millions of dollars)

Identification code 089-4579-0-3-272	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
Credit program obligations:			
0710 Direct loan obligations		4,890	12,829
0713 Payment of interest to Treasury	14	17	27
0715 Interest paid to FFB	18	13	11
0742 Downward reestimates paid to receipt accounts		8	
0743 Interest on downward reestimates		3	
0900 Total new obligations, unexpired accounts	32	4,931	12,867
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	20		194
1023 Unobligated balances applied to repay debt	-20		
1070 Unobligated balance (total)			194
Financing authority:			
Borrowing authority, mandatory:			
1400 Borrowing authority	436	4,945	13,009
1422 Borrowing authority applied to repay debt	-429		
1440 Borrowing authority, mandatory (total)	7	4,945	13,009
Spending authority from offsetting collections, mandatory:			
1800 Collected	201	1,025	264
1801 Change in uncollected payments, Federal sources		189	432
1825 Spending authority from offsetting collections applied to repay debt	-176	-1,034	
1850 Spending auth from offsetting collections, mand (total)	25	180	696
1900 Budget authority (total)	32	5,125	13,705
1930 Total budgetary resources available	32	5,125	13,899
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year		194	1,032
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1			3,896
3010 New obligations, unexpired accounts	32	4,931	12,867
3020 Outlays (gross)	-32	-1,035	-4,230
3050 Unpaid obligations, end of year		3,896	12,533
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1			-189
3070 Change in uncollected pymts, Fed sources, unexpired		-189	-432
3090 Uncollected pymts, Fed sources, end of year		-189	-621
Memorandum (non-add) entries:			
3100 Obligated balance, start of year			3,707
3200 Obligated balance, end of year		3,707	11,912
Financing authority and disbursements, net:			
Mandatory:			
4090 Budget authority, gross	32	5,125	13,705
Financing disbursements:			
4110 Outlays, gross (total)	32	1,035	4,230
Offsets against gross financing authority and disbursements:			
Offsetting collections (collected) from:			
4120 Payment from program account	-14	-47	-204
4122 Interest on uninvested funds	-7		-13
4123 Non-Federal sources (interest)	-180	-26	-18
4123 Non-Federal sources (principal)		-947	-3
4123 Other income - Fees		-5	-26
4130 Offsets against gross budget authority and outlays (total)	-201	-1,025	-264
Additional offsets against financing authority only (total):			
4140 Change in uncollected pymts, Fed sources, unexpired		-189	-432
4160 Budget authority, net (mandatory)	-169	3,911	13,009
4170 Outlays, net (mandatory)	-169	10	3,966
4180 Budget authority, net (total)	-169	3,911	13,009
4190 Outlays, net (total)	-169	10	3,966

Status of Direct Loans (in millions of dollars)

Identification code 089-4579-0-3-272	2021 actual	2022 est.	2023 est.
Position with respect to appropriations act limitation on obligations:			
1121 Limitation available from carry-forward	17,719	17,719	12,829
1143 Unobligated limitation carried forward (P.L. 110-329) (-)	-17,719	-12,829	

1150 Total direct loan obligations	4,890	12,829
Cumulative balance of direct loans outstanding:		
1210 Outstanding, start of year	1,249	1,101
1231 Disbursements: Direct loan disbursements		995
1251 Repayments: Repayments and prepayments	-148	-947
1290 Outstanding, end of year	1,101	1,149

Balance Sheet (in millions of dollars)

Identification code 089-4579-0-3-272	2020 actual	2021 actual
ASSETS:		
Federal assets:		
1101 Fund balances with Treasury	20	
Investments in U.S. securities:		
1106 Receivables, net	34	
Net value of assets related to post-1991 direct loans receivable:		
1401 Direct loans receivable, gross	1,249	1,101
1402 Interest receivable	1	2
1405 Allowance for subsidy cost (-)	-76	-74
1499 Net present value of assets related to direct loans	1,174	1,029
1999 Total assets	1,228	1,029
LIABILITIES:		
Federal liabilities:		
2101 Accounts payable		
2103 Debt	1,208	1,018
2105 Other	20	11
2999 Total liabilities	1,228	1,029
NET POSITION:		
3300 Cumulative results of operations		
4999 Total upward reestimate subsidy BA [89-0322]	1,228	1,029

TITLE 17 INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM

For the cost of guaranteed loans, \$150,000,000, to remain available until expended, for innovative technology projects as authorized under Title XVII of the Energy Policy Act of 2005: Provided, That such costs, including the cost of modifying such loans, shall be as defined in section 502 of the Congressional Budget Act of 1974: Provided further, That these funds are available in addition to the authority provided in any other Act for the costs to guarantee loans under the heading "Department of Energy—Energy Programs—Title 17 Innovative Technology Loan Guarantee Program": Provided further, That these funds are available to subsidize total loan principal, any part of which is to be guaranteed, not to exceed \$5,000,000,000: Provided further, That such sums as are derived from amounts received from borrowers pursuant to section 1702(b) of the Energy Policy Act of 2005 under this heading in prior Acts, shall be collected in accordance with section 502(7) of the Congressional Budget Act of 1974: Provided further, That for necessary administrative expenses of the Title 17 Innovative Technology Loan Guarantee Program, as authorized, \$66,206,000 is appropriated, to remain available until September 30, 2024: Provided further, That up to \$66,206,000 of fees collected in fiscal year 2023 pursuant to section 1702(h) of the Energy Policy Act of 2005 shall be credited as offsetting collections under this heading and used for necessary administrative expenses in this appropriation and shall remain available until September 30, 2024: Provided further, That to the extent that fees collected in fiscal year 2023 exceed \$66,206,000, those excess amounts shall be credited as offsetting collections under this heading and available in future fiscal years only to the extent provided in advance in appropriations Acts: Provided further, That the sum herein appropriated from the general fund shall be reduced (1) as such fees are received during fiscal year 2023 (estimated at \$48,000,000) and (2) to the extent that any remaining general fund appropriations can be derived from fees collected in previous fiscal years that are not otherwise appropriated, so as to result in a final fiscal year 2023 appropriation from the general fund estimated at \$0: Provided further, That the Department of Energy shall not subordinate any loan obligation to other financing in violation of section 1702 of the Energy Policy Act of 2005 or subordinate any Guaranteed Obligation to any loan or other debt obligations in violation of section 609.10 of title 10, Code of Federal Regulations.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0208–0–1–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
Credit program obligations:			
0701 Direct loan subsidy		161	30
0705 Reestimates of direct loan subsidy	262		
0706 Interest on reestimates of direct loan subsidy	34	22	
0709 Administrative expenses	37	59	66
0900 Total new obligations, unexpired accounts	333	242	96
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	682	285	97
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	29		150
1131 Unobligated balance of appropriations permanently reduced	–392		
1160 Appropriation, discretionary (total)	–363		150
Appropriations, mandatory:			
1200 Appropriation	296	22	
Spending authority from offsetting collections, discretionary:			
1700 Collected	3	53	48
1702 Offsetting collections (previously unavailable)			21
1724 Spending authority from offsetting collections precluded from obligation (limitation on obligations)		–21	–3
1750 Spending auth from offsetting collections, disc (total)	3	32	66
1900 Budget authority (total)	–64	54	216
1930 Total budgetary resources available	618	339	313
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	285	97	217
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	21	25	168
3010 New obligations, unexpired accounts	333	242	96
3020 Outlays (gross)	–328	–99	–239
3041 Recoveries of prior year unpaid obligations, expired	–1		
3050 Unpaid obligations, end of year	25	168	25
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	21	25	168
3200 Obligated balance, end of year	25	168	25
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	–360	32	216
Outlays, gross:			
4010 Outlays from new discretionary authority		32	96
4011 Outlays from discretionary balances	32	45	143
4020 Outlays, gross (total)	32	77	239
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4033 Non-Federal sources	–3	–53	–48
4040 Offsets against gross budget authority and outlays (total)	–3	–53	–48
Mandatory:			
4090 Budget authority, gross	296	22	
Outlays, gross:			
4100 Outlays from new mandatory authority	296	22	
4180 Budget authority, net (total)	–67	1	168
4190 Outlays, net (total)	325	46	191
Memorandum (non-add) entries:			
5090 Unexpired unavailable balance, SOY: Offsetting collections			21
5092 Unexpired unavailable balance, EOY: Offsetting collections		21	3

Summary of Loan Levels, Subsidy Budget Authority and Outlays by Program (in millions of dollars)

Identification code 089–0208–0–1–271	2021 actual	2022 est.	2023 est.
Direct loan levels supportable by subsidy budget authority:			
115001 Section 1703 FFB Loans		6,025	4,510
115999 Total direct loan levels		6,025	4,510
Direct loan subsidy (in percent):			
132001 Section 1703 FFB Loans		2.67	0.66
132999 Weighted average subsidy rate		2.67	0.66
Direct loan subsidy budget authority:			
133001 Section 1703 FFB Loans		161	30

133999 Total subsidy budget authority	161	30
Direct loan subsidy outlays:		
134001 Section 1703 FFB Loans	–45	15
134999 Total subsidy outlays	–45	15
Direct loan reestimates:		
135001 Section 1703 FFB Loans	190	–146
135002 Section 1705 FFB Loans	14	–182
135999 Total direct loan reestimates	204	–328
Guaranteed loan reestimates:		
235002 Section 1705 Loan Guarantees	–68	–23
235999 Total guaranteed loan reestimates	–68	–23

The Title 17 Innovative Technology Loan Guarantee Program (Title 17), authorized by the Energy Policy Act of 2005 (EPAct of 2005), as amended, allows the Department of Energy (DOE) to provide loan guarantees for innovative energy projects that avoid, reduce, or sequester air pollutants or anthropogenic emissions of greenhouse gases. Eligible technologies include energy efficient and renewable energy systems; advanced fossil and carbon capture, sequestration, utilization and storage systems; energy storage; virtual power plants; and various other clean energy projects.

Through the Title 17 loan guarantee program, the Loan Programs Office (LPO) provides access to debt capital for high-impact, large-scale infrastructure projects and initial commercializations in the United States. Eligible projects must meet air pollutant or greenhouse gases emissions requirements; employ new or significantly improved technologies compared to commercial technologies in service in the United States at the time the guarantee is issued; and offer a reasonable prospect of repayment of the principal and interest on the guaranteed obligation.

As of January 2022, \$22.4 billion in loan guarantee authority is available to support projects eligible under Section 1703. In addition, \$161 million in appropriated credit subsidy is remaining (from the FY 2011 full-year continuing resolution) that can be used for renewable energy and efficient end-use technology projects.

The Bipartisan Infrastructure Law authorized an expanded scope of projects eligible under Title 17, including domestic critical minerals supply chain and State energy financing institution-backed projects. The FY 2023 Budget proposes to enable the use of existing appropriated authority to support projects eligible under this new authority.

The FY 2023 Budget requests \$150,000,000 for credit subsidy and \$5 billion in loan guarantee authority to support the full range of projects eligible under Title 17. Available loan authority will increase by \$5 billion from \$22.4 billion to \$27.4 billion. The Department expects to obligate approximately \$6 billion of loan authority in FY 2022 and \$4.5 billion of loan authority in FY 2023.

The Budget requests \$66,206,000 for administrative expenses to operate the Title 17 program. The Department estimates that \$48,000,000 will be received from fees pursuant to Section 1702(h) of the Energy Policy Act of 2005 and credited as offsetting collection.

Object Classification (in millions of dollars)

Identification code 089–0208–0–1–271	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent	12	13	15
11.9 Total personnel compensation	12	13	15
12.1 Civilian personnel benefits	4	5	5
21.0 Travel and transportation of persons			2
23.3 Communications, utilities, and miscellaneous charges			1
25.1 Advisory and assistance services	17	34	36
25.2 Other services from non-Federal sources	1	3	2
25.3 Other goods and services from Federal sources	2	3	4
26.0 Supplies and materials	1	1	1
41.0 Grants, subsidies, and contributions	296	183	30
99.0 Direct obligations	333	242	96
99.9 Total new obligations, unexpired accounts	333	242	96

TITLE 17 INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM—Continued
Employment Summary

Identification code 089-0208-0-1-271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	75	93	97

TITLE 17 INNOVATIVE TECHNOLOGY DIRECT LOAN FINANCING ACCOUNT

Program and Financing (in millions of dollars)

Identification code 089-4455-0-3-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
Credit program obligations:			
0710 Direct loan obligations		6,025	4,510
0713 Payment of interest to Treasury	25	18	13
0715 Interest paid to FFB	428	223	229
0742 Downward reestimates paid to receipt accounts	92	294	
0743 Interest on downward reestimates		55	
0900 Total new obligations, unexpired accounts	545	6,615	4,752
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	860	846	916
1023 Unobligated balances applied to repay debt	-384	-140	
1070 Unobligated balance (total)	476	706	916
Financing authority:			
Borrowing authority, mandatory:			
1400 Borrowing authority	268	6,025	4,638
1422 Borrowing authority applied to repay debt	-162		
1440 Borrowing authority, mandatory (total)	106	6,025	4,638
Spending authority from offsetting collections, mandatory:			
1800 Collected	1,415	852	963
1801 Change in uncollected payments, Federal sources		136	-111
1825 Spending authority from offsetting collections applied to repay debt	-606	-188	-16
1850 Spending auth from offsetting collections, mand (total)	809	800	836
1900 Budget authority (total)	915	6,825	5,474
1930 Total budgetary resources available	1,391	7,531	6,390
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	846	916	1,638
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	2,430	838	5,465
3010 New obligations, unexpired accounts	545	6,615	4,752
3020 Outlays (gross)	-2,137	-1,988	-5,289
3050 Unpaid obligations, end of year	838	5,465	4,928
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1			-136
3070 Change in uncollected pymts, Fed sources, unexpired		-136	111
3090 Uncollected pymts, Fed sources, end of year		-136	-25
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	2,430	838	5,329
3200 Obligated balance, end of year	838	5,329	4,903
Financing authority and disbursements, net:			
Mandatory:			
4090 Budget authority, gross	915	6,825	5,474
Financing disbursements:			
4110 Outlays, gross (total)	2,137	1,988	5,289
Offsets against gross financing authority and disbursements:			
Offsetting collections (collected) from:			
4120 Payment from program account	-296	-25	-141
4120 Interest on reestimate		-22	
4122 Interest on uninvested funds	-56	-23	-6
4123 Interest payments	-1,063	-328	-362
4123 Principal payments		-454	-454
4130 Offsets against gross budget authority and outlays (total)	-1,415	-852	-963
Additional offsets against financing authority only (total):			
4140 Change in uncollected pymts, Fed sources, unexpired		-136	111
4160 Budget authority, net (mandatory)	-500	5,837	4,622
4170 Outlays, net (mandatory)	722	1,136	4,326
4180 Budget authority, net (total)	-500	5,837	4,622
4190 Outlays, net (total)	722	1,136	4,326

Status of Direct Loans (in millions of dollars)

Identification code 089-4455-0-3-271	2021 actual	2022 est.	2023 est.
Position with respect to appropriations act limitation on obligations:			
1121 Limitation available from carry-forward	22,422	22,422	21,397
1143 Unobligated limitation carried forward (P.L. xx) (-)	-22,422	-16,397	-16,887
1150 Total direct loan obligations		6,025	4,510
Cumulative balance of direct loans outstanding:			
1210 Outstanding, start of year	14,782	15,699	16,716
1231 Disbursements: Direct loan disbursements	1,553	1,389	4,799
1251 Repayments: Repayments and prepayments	-569	-328	-362
1261 Adjustments: Capitalized interest			17
1264 Other adjustments, net (+ or -) [Payment of capitalized interest]	-67	-44	
1290 Outstanding, end of year	15,699	16,716	21,170

Balance Sheet (in millions of dollars)

Identification code 089-4455-0-3-271	2020 actual	2021 actual
ASSETS:		
Federal assets:		
1101 Fund balances with Treasury	860	847
Investments in U.S. securities:		
1106 Receivables, net	510	142
1206 Non-Federal assets: Receivables, net	12	12
Net value of assets related to post-1991 direct loans receivable:		
1401 Direct loans receivable, gross	14,782	15,699
1402 Interest receivable	78	72
1405 Allowance for subsidy cost (-)	-872	-462
1499 Net present value of assets related to direct loans	13,988	15,309
1999 Total assets	15,370	16,310
LIABILITIES:		
Federal liabilities:		
2103 Debt	15,148	15,856
2105 Other	222	454
2999 Total liabilities	15,370	16,310
NET POSITION:		
3300 Cumulative results of operations		
4999 Total liabilities and net position	15,370	16,310

CARBON DIOXIDE TRANSPORTATION INFRASTRUCTURE FINANCE AND INNOVATION
PROGRAM ACCOUNT

For an additional amount for "Carbon Dioxide Transportation Infrastructure Finance and Innovation Program Account", \$2,100,000,000, to remain available until expended, to carry out activities for the Carbon Dioxide Transportation Infrastructure Finance and Innovation Program, as authorized by subtitle J of title IX of the Energy Policy Act of 2005 (42 U.S.C. 16181 et seq.), as amended by section 40304(a) of division D of this Act: *Provided*, That such costs, including the cost of modifying such loans, shall be as defined in section 502 of the Congressional Budget Act of 1974: *Provided further*, That \$3,000,000, to remain available until expended, shall be made available for fiscal year 2022 and \$2,097,000,000, to remain available until expended, shall be made available for fiscal year 2023: *Provided further*, That the amount made available under this heading in this Act for fiscal year 2022 shall be for administrative expenses to carry out the loan program: *Provided further*, That the Office of Fossil Energy and Carbon Management shall oversee the Carbon Dioxide Transportation Infrastructure Finance and Innovation program, in consultation and coordination with the Department of Energy's Loan Program Office: *Provided further*, That not later than 270 days after the date of enactment of this Act, the Secretary of Energy shall submit to the House and Senate Committees on Appropriations an analysis of how subsidy rates will be determined for loans financed by appropriations provided under this heading in this Act and an analysis of the process for developing draft regulations for the program, including a crosswalk from the statutory requirements for such program, and a timetable for publishing such regulations: *Provided further*, That for each fiscal year through 2027, the annual budget submission of the President under section 1105(a) of title 31, United States Code, shall include a detailed request for the amount recommended for allocation for the Carbon Dioxide Transportation Finance and Innovation program from amounts provided under this heading in this Act and such detailed request shall include any information required pursuant to the Federal Credit Reform Act of 1990, such as credit subsidy rates, a loan limitation, and necessary administrative expenses to carry

out the loan program: *Provided further*, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985.] (*Infrastructure Investments and Jobs Appropriations Act.*)

Program and Financing (in millions of dollars)

Identification code 089–2300–0–1–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
Credit program obligations:			
0709 Administrative expenses		2	10
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1			1
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation		3	
Advance appropriations, discretionary:			
1170 Advance appropriation			2,095
1900 Budget authority (total)		3	2,095
1930 Total budgetary resources available		3	2,096
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year		1	2,086
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts		2	10
3020 Outlays (gross)		–2	–10
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross		3	2,095
Outlays, gross:			
4010 Outlays from new discretionary authority		2	9
4011 Outlays from discretionary balances			1
4020 Outlays, gross (total)		2	10
4180 Budget authority, net (total)		3	2,095
4190 Outlays, net (total)		2	10

Summary of Loan Levels, Subsidy Budget Authority and Outlays by Program (in millions of dollars)

Identification code 089–2300–0–1–271	2021 actual	2022 est.	2023 est.
Administrative expense data:			
3510 Budget authority		1	1
3580 Outlays from balances			1
3590 Outlays from new authority		1	

The Carbon Dioxide Transportation Infrastructure Finance and Innovation (CIFIA) Program, established in the Bipartisan Infrastructure Law (Infrastructure Investment and Jobs Act, P.L. 117–58), is authorized to provide loans, loan guarantees, and grants for carbon dioxide transport infrastructure projects. CIFIA supports the manufacturing and expansion of common carrier carbon dioxide transportation infrastructure and associated components, including pipeline, shipping, rail, and other transportation infrastructure. The Office of Fossil Energy and Carbon Management oversees the CIFIA program, in consultation and coordination with DOE's Loan Programs Office.

Object Classification (in millions of dollars)

Identification code 089–2300–0–1–271	2021 actual	2022 est.	2023 est.
11.1 Direct obligations: Personnel compensation: Full-time permanent		1	2
11.9 Total personnel compensation		1	2
25.1 Advisory and assistance services		1	8
99.9 Total new obligations, unexpired accounts		2	10

Employment Summary

Identification code 089–2300–0–1–271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment		5	10

TRIBAL ENERGY LOAN GUARANTEE PROGRAM

For Department of Energy administrative expenses necessary in carrying out the Tribal Energy Loan Guarantee Program, \$1,860,000, to remain available until September 30, 2024.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117–43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089–0350–0–1–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
Credit program obligations:			
0702 Loan guarantee subsidy		4	1
0709 Administrative expenses	2	2	2
0900 Total new obligations, unexpired accounts	2	6	3
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	11	11	7
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	2	2	2
1930 Total budgetary resources available	13	13	9
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	11	7	6
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	1	2	5
3010 New obligations, unexpired accounts	2	6	3
3020 Outlays (gross)	–1	–3	–5
3050 Unpaid obligations, end of year	2	5	3
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	1	2	5
3200 Obligated balance, end of year	2	5	3
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	2	2	2
Outlays, gross:			
4010 Outlays from new discretionary authority		2	2
4011 Outlays from discretionary balances	1	1	3
4020 Outlays, gross (total)	1	3	5
4180 Budget authority, net (total)	2	2	2
4190 Outlays, net (total)	1	3	5

Summary of Loan Levels, Subsidy Budget Authority and Outlays by Program (in millions of dollars)

Identification code 089–0350–0–1–271	2021 actual	2022 est.	2023 est.
Guaranteed loan levels supportable by subsidy budget authority:			
215001 Tribal Energy Loan Guarantees		735	465
Guaranteed loan subsidy (in percent):			
232001 Tribal Energy Loan Guarantees		0.56	0.31
232999 Weighted average subsidy rate	0.00	0.56	0.31
Guaranteed loan subsidy budget authority:			
233001 Tribal Energy Loan Guarantees		4	1
Guaranteed loan subsidy outlays:			
234001 Tribal Energy Loan Guarantees		1	2

The Tribal Energy Loan Guarantee Program (TELGP) provides access to debt capital for tribal ownership of energy projects and activities that support economic development and tribal sovereignty. TELGP is authorized pursuant to section 2602 of the Energy Policy Act of 1992, as amended by the Energy Policy Act of 2005, to make available up to \$2 billion in partial loan guarantees. The Consolidated Appropriations Act, 2017, (H.R. 244,

TRIBAL ENERGY LOAN GUARANTEE PROGRAM—Continued

Public Law 115–31) appropriated \$8.5 million to cover the credit subsidy costs associated with the \$2 billion in available loan authority.

The FY 2023 Budget proposes \$1,860,000 in Administrative Expenses to continue outreach and originating activities and to monitor the expected portfolio of TELGP projects. This funding level allows the Loan Programs Office to help achieve the Administration's objectives of a carbon-pollution free electric sector by 2035 and net-zero emissions, economy-wide, by 2050, supporting placed-based initiatives including energy community and Justice40 investments.

Object Classification (in millions of dollars)

Identification code 089–0350–0–1–271	2021 actual	2022 est.	2023 est.
Direct obligations:			
25.1 Advisory and assistance services	2	1	1
41.0 Grants, subsidies, and contributions		4	1
99.0 Direct obligations	2	5	2
99.5 Adjustment for rounding		1	1
99.9 Total new obligations, unexpired accounts	2	6	3

Employment Summary

Identification code 089–0350–0–1–271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment		5	5

TRIBAL INDIAN ENERGY RESOURCE DEVELOPMENT LOAN GUARANTEE FINANCING ACCOUNT

Program and Financing (in millions of dollars)

Identification code 089–4370–0–3–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
Credit program obligations:			
0711 Default claim payments on principal		1	4
0900 Total new obligations, unexpired accounts		1	4
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1			3
Financing authority:			
Spending authority from offsetting collections, mandatory:			
1800 Collected		1	2
1801 Change in uncollected payments, Federal sources		3	1
1850 Spending auth from offsetting collections, mand (total)		4	3
1930 Total budgetary resources available		4	6
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year		3	2
Change in obligated balance:			
Unpaid obligations:			
3010 New obligations, unexpired accounts		1	4
3020 Outlays (gross)		–1	–4
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1			–3
3070 Change in uncollected pymts, Fed sources, unexpired		–3	–1
3090 Uncollected pymts, Fed sources, end of year		–3	–4
Memorandum (non-add) entries:			
3100 Obligated balance, start of year			–3
3200 Obligated balance, end of year		–3	–4
Financing authority and disbursements, net:			
Mandatory:			
4090 Budget authority, gross		4	3
Financing disbursements:			
4110 Outlays, gross (total)		1	4
Offsets against gross financing authority and disbursements:			
Offsetting collections (collected) from:			
4120 Program Fund Collections		–1	–2
Additional offsets against financing authority only (total):			
4140 Change in uncollected pymts, Fed sources, unexpired		–3	–1
4170 Outlays, net (mandatory)			2
4180 Budget authority, net (total)			

4190 Outlays, net (total)	2
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Status of Guaranteed Loans (in millions of dollars)

Identification code 089–4370–0–3–271	2021 actual	2022 est.	2023 est.
Position with respect to appropriations act limitation on commitments:			
2121 Limitation available from carry-forward	2,000	2,000	1,265
2142 Uncommitted loan guarantee limitation			
2143 Uncommitted limitation carried forward	–2,000	–1,265	–800
2150 Total guaranteed loan commitments		735	465
2199 Guaranteed amount of guaranteed loan commitments		662	419
Cumulative balance of guaranteed loans outstanding:			
2210 Outstanding, start of year			112
2231 Disbursements of new guaranteed loans		113	369
2251 Repayments and prepayments			
Adjustments:			
2261 Terminations for default that result in loans receivable			
2263 Terminations for default that result in claim payments		–1	
2290 Outstanding, end of year		112	481
Memorandum:			
2299 Guaranteed amount of guaranteed loans outstanding, end of year		102	434
Addendum:			
Cumulative balance of defaulted guaranteed loans that result in loans receivable:			
2310 Outstanding, start of year			1
2331 Disbursements for guaranteed loan claims		1	4
2351 Repayments of loans receivable			–1
2390 Outstanding, end of year		1	4

TITLE 17 INNOVATIVE TECHNOLOGY GUARANTEED LOAN FINANCING ACCOUNT

Program and Financing (in millions of dollars)

Identification code 089–4577–0–3–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
Credit program obligations:			
0711 Default claim payments on principal		24	4
0712 Default claim payments on interest		5	5
0742 Downward reestimates paid to receipt accounts	49	16	
0743 Interest on downward reestimates	19	6	
0900 Total new obligations, unexpired accounts	68	51	9
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	193	129	81
Financing authority:			
Spending authority from offsetting collections, mandatory:			
1800 Collected	4	3	18
1900 Budget authority (total)	4	3	18
1930 Total budgetary resources available	197	132	99
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	129	81	90
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1		1	1
3010 New obligations, unexpired accounts	68	51	9
3020 Outlays (gross)	–67	–51	–9
3050 Unpaid obligations, end of year	1	1	1
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	–9	–9	–9
3090 Uncollected pymts, Fed sources, end of year	–9	–9	–9
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	–9	–8	–8
3200 Obligated balance, end of year	–8	–8	–8
Financing authority and disbursements, net:			
Mandatory:			
4090 Budget authority, gross	4	3	18
Financing disbursements:			
4110 Outlays, gross (total)	67	51	9

Offsets against gross financing authority and disbursements:			
Offsetting collections (collected) from:			
4122	Interest on uninvested funds	-4	-3
4123	Principal payments		-12
4123	Interest Payments		-3
4130	Offsets against gross budget authority and outlays (total)	-4	-3
4170	Outlays, net (mandatory)	63	48
4180	Budget authority, net (total)		-9
4190	Outlays, net (total)	63	48

Status of Guaranteed Loans (in millions of dollars)

Identification code 089-4577-0-3-271		2021 actual	2022 est.	2023 est.
Position with respect to appropriations act limitation on commitments:				
2121	Limitation available from carry-forward			
2143	Uncommitted limitation carried forward			
2150	Total guaranteed loan commitments			
Cumulative balance of guaranteed loans outstanding:				
2210	Outstanding, start of year	2,000	1,888	1,782
2231	Disbursements of new guaranteed loans			
2251	Repayments and prepayments	-112	-82	-103
2261	Adjustments: Terminations for default that result in loans receivable		-24	-4
2290	Outstanding, end of year	1,888	1,782	1,675
Memorandum:				
2299	Guaranteed amount of guaranteed loans outstanding, end of year	1,522	1,438	1,352
Addendum:				
Cumulative balance of defaulted guaranteed loans that result in loans receivable:				
2310	Outstanding, start of year			29
2331	Disbursements for guaranteed loan claims		24	4
2351	Repayments of loans receivable			-14
2364	Other adjustments, net		5	5
2390	Outstanding, end of year		29	24

Balance Sheet (in millions of dollars)

Identification code 089-4577-0-3-271		2020 actual	2021 actual
ASSETS:			
Federal assets:			
1101	Fund balances with Treasury	184	121
Investments in U.S. securities:			
1106	Receivables, net		
1501	Net value of assets related to post-1991 acquired defaulted guaranteed loans receivable: Defaulted guaranteed loans receivable, gross		
1999	Total assets	184	121
LIABILITIES:			
Federal liabilities:			
2101	Accounts payable		
2105	Other	67	23
2204	Non-Federal liabilities: Liabilities for loan guarantees	117	98
2999	Total liabilities	184	121
NET POSITION:			
3300	Cumulative results of operations		
4999	Total liabilities and net position	184	121

services shall be credited to this account as discretionary offsetting collections, to remain available until expended for the sole purpose of funding the annual expenses of the Southeastern Power Administration: Provided further, That the sum herein appropriated for annual expenses shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2023 appropriation estimated at not more than \$0: Provided further, That notwithstanding 31 U.S.C. 3302, up to \$78,696,000 collected by the Southeastern Power Administration pursuant to the Flood Control Act of 1944 to recover purchase power and wheeling expenses shall be credited to this account as offsetting collections, to remain available until expended for the sole purpose of making purchase power and wheeling expenditures: Provided further, That for purposes of this appropriation, annual expenses means expenditures that are generally recovered in the same year that they are incurred (excluding purchase power and wheeling expenses).

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0302-0-1-271		2021 actual	2022 est.	2023 est.
Obligations by program activity:				
0001	Purchase Power and Wheeling	43	53	79
0002	Annual Expenses	8	7	7
0799	Total direct obligations	51	60	86
0900	Total new obligations, unexpired accounts	51	60	86
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	19	30	30
Budget authority:				
Spending authority from offsetting collections, discretionary:				
1700	Collected	62	60	84
1900	Budget authority (total)	62	60	84
1930	Total budgetary resources available	81	90	114
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	30	30	28
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	4	5	5
3010	New obligations, unexpired accounts	51	60	86
3020	Outlays (gross)	-50	-60	-86
3050	Unpaid obligations, end of year	5	5	5
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	4	5	5
3200	Obligated balance, end of year	5	5	5
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	62	60	84
Outlays, gross:				
4010	Outlays from new discretionary authority	26	58	81
4011	Outlays from discretionary balances	24	2	5
4020	Outlays, gross (total)	50	60	86
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4033	Non-Federal sources	-62	-60	-84
4040	Offsets against gross budget authority and outlays (total)	-62	-60	-84
4180	Budget authority, net (total)			
4190	Outlays, net (total)	-12		2

POWER MARKETING ADMINISTRATION**Federal Funds****OPERATION AND MAINTENANCE, SOUTHEASTERN POWER ADMINISTRATION**

For expenses necessary for operation and maintenance of power transmission facilities and for marketing electric power and energy, including transmission wheeling and ancillary services, pursuant to section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), as applied to the southeastern power area, \$8,173,000, including official reception and representation expenses in an amount not to exceed \$1,500, to remain available until expended: Provided, That notwithstanding 31 U.S.C. 3302 and section 5 of the Flood Control Act of 1944, up to \$8,173,000 collected by the Southeastern Power Administration from the sale of power and related

The Southeastern Power Administration (Southeastern) markets power generated at 22 U.S. Army Corps of Engineers' hydroelectric generating plants in an eleven State area of the Southeast. Power deliveries are made by means of contracting for use of transmission facilities owned by others.

Southeastern sells wholesale power primarily to publicly and cooperatively owned electric distribution utilities. Southeastern does not own or operate any transmission facilities. Its long-term contracts provide for periodic electric rate adjustments to ensure that the Federal Government recovers the costs of operations and the capital invested in power facilities, with interest, in keeping with statutory requirements. As in past years, the budget continues to provide funding for annual expenses and purchase

OPERATION AND MAINTENANCE, SOUTHEASTERN POWER ADMINISTRATION—Continued
power and wheeling expenses through discretionary offsetting collections derived from power receipts collected to recover those expenses.

Program Direction.—Provision is made for negotiation and administration of transmission and power contracts, collection of revenues, accounting and budget activities, development of wholesale power rates, amortization of the Federal power investment, energy efficiency and competitiveness program, investigation and planning of proposed water resources projects, scheduling and dispatch of power generation, scheduling storage and release of water, administration of contractual operation requirements, and determination of methods of operating generating plants individually and in coordination with others to obtain maximum utilization of resources.

Purchase Power and Wheeling.—Provision is made for the payment of wheeling fees and for the purchase of electricity in connection with the disposal of power under contracts with utility companies. Customers are encouraged to use alternative funding mechanisms, including customer advances and net billing to finance these activities. Offsetting collections to fund these ongoing operating services are also available up to 53 million in 2022. As of the end of FY 2021, Southeastern's PPW reserve balance was \$27 million.

DISCRETIONARY PURCHASE POWER AND WHEELING, SOUTHEASTERN POWER ADMINISTRATION

	(in millions of dollars)				
	2019 Actual	2020 Actual	2021 Actual	2022 Estimate	2023 Estimate
Limitation to collect, ('up to' ceiling in appropriations language)	55	56	52	53	79
Actual collections	42	46	52	53	79
PPW Unobligated balance brought forward, Oct 1	12	14	18	27	27
Spending authority from offsetting collections	42	46	52	53	79
Obligations incurred	-40	-42	-43	-53	-79
PPW Unobligated balance, end of year	14	18	27	27	27

Reimbursable Program.—The Consolidated Appropriations Act, 2008 (P.L. 110-161) provided Southeastern with authority to accept advance payment from customers for reimbursable work associated with operations and maintenance activities, consistent with those authorized in section 5 of the Flood Control Act of 1944. Funds received from any State, municipality, corporation, association, firm, district, or individual as an advance payment for reimbursable work will be credited to Southeastern's account and remain available until expended.

Object Classification (in millions of dollars)

Identification code 089-0302-0-1-271	2021 actual	2022 est.	2023 est.
Direct obligations:			
11.1 Personnel compensation: Full-time permanent	4	4	4
12.1 Civilian personnel benefits	2	2	2
25.2 Purchase Power and Wheeling	43	53	79
25.2 Other services from non-Federal sources	2	1	1
99.0 Direct obligations	51	60	86
99.9 Total new obligations, unexpired accounts	51	60	86

Employment Summary

Identification code 089-0302-0-1-271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	39	44	44

CONTINUING FUND, SOUTHEASTERN POWER ADMINISTRATION

A continuing fund maintained from receipts from the sale and transmission of electric power in the Southeastern service area is available to defray emergency expenses necessary to ensure continuity of service (16 U.S.C. 825s-2). The fund was last activated in 2018 to finance power purchases associated with heightened demand and cost spikes due to severe cold weather. Consistent with sound business practices, the Southeastern Power

Administration has implemented a policy to recover all emergency costs associated with purchased power and wheeling within one year from the time funds are expended.

OPERATION AND MAINTENANCE, SOUTHWESTERN POWER ADMINISTRATION

For expenses necessary for operation and maintenance of power transmission facilities and for marketing electric power and energy, for construction and acquisition of transmission lines, substations and appurtenant facilities, and for administrative expenses, including official reception and representation expenses in an amount not to exceed \$1,500 in carrying out section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), as applied to the Southwestern Power Administration, \$53,488,000, to remain available until expended: Provided, That notwithstanding 31 U.S.C. 3302 and section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), up to \$42,880,000 collected by the Southwestern Power Administration from the sale of power and related services shall be credited to this account as discretionary offsetting collections, to remain available until expended, for the sole purpose of funding the annual expenses of the Southwestern Power Administration: Provided further, That the sum herein appropriated for annual expenses shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2023 appropriation estimated at not more than \$10,608,000: Provided further, That notwithstanding 31 U.S.C. 3302, up to \$70,000,000 collected by the Southwestern Power Administration pursuant to the Flood Control Act of 1944 to recover purchase power and wheeling expenses shall be credited to this account as offsetting collections, to remain available until expended for the sole purpose of making purchase power and wheeling expenditures: Provided further, That for purposes of this appropriation, annual expenses means expenditures that are generally recovered in the same year that they are incurred (excluding purchase power and wheeling expenses).

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0303-0-1-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Systems operation and maintenance	1	3	2
0003 Construction		10	5
0004 Program direction	3	4	4
0005 Spectrum Relocation		6	
0010 Annual Expenses	34	38	43
0020 Purchase Power and Wheeling	35	52	70
0200 Direct program subtotal	73	113	124
0799 Total direct obligations	73	113	124
0810 Other reimbursable activities		52	52
0899 Total reimbursable obligations		52	52
0900 Total new obligations, unexpired accounts	73	165	176
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	109	128	132
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	10	10	11
Spending authority from offsetting collections, discretionary:			
1700 Collected	82	159	165
1900 Budget authority (total)	92	169	176
1930 Total budgetary resources available	201	297	308
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	128	132	132
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	151	150	152
3010 New obligations, unexpired accounts	73	165	176
3020 Outlays (gross)	-74	-163	-223
3050 Unpaid obligations, end of year	150	152	105
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	151	150	152
3200 Obligated balance, end of year	150	152	105

Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	92	169	176
Outlays, gross:				
4010	Outlays from new discretionary authority	25	28	29
4011	Outlays from discretionary balances	49	135	194
4020	Outlays, gross (total)	74	163	223
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources	-6	-6	-6
4033	Non-Federal sources	-82	-153	-159
4040	Offsets against gross budget authority and outlays (total)	-82	-159	-165
4070	Budget authority, net (discretionary)	10	10	11
4080	Outlays, net (discretionary)	-8	4	58
4180	Budget authority, net (total)	10	10	11
4190	Outlays, net (total)	-8	4	58

Southwestern Power Administration (Southwestern) operates in a six-state area marketing and delivering renewable hydroelectric power produced at the U.S. Army Corps of Engineers' dams. Southwestern operates and maintains 1,381 miles of high voltage transmission lines, 26 substations/switching stations, associated power system controls, and communication sites. Southwestern also makes modifications and constructs additions to existing facilities.

Southwestern markets and delivers its power at wholesale rates to 78 municipal utilities, 21 rural electric cooperatives, and 3 military installations. In compliance with statutory requirements, Southwestern's power sales contracts provide for periodic rate adjustments to ensure that the Federal Government recovers all costs of operations, other costs allocated to power, and the capital investments in power facilities, with interest. Southwestern is also responsible for scheduling and dispatching power and negotiating power sales contracts to meet changing customer load requirements. As in past years, the budget continues to provide funding for annual expenses and purchase power and wheeling expenses through discretionary offsetting collections derived from power receipts collected to recover those expenses.

Program Direction.—Provides compensation and all related expenses for personnel who market, deliver, operate, and maintain Southwestern's high-voltage interconnected power system and associated facilities, those that perform cyber and physical security roles, and those that administratively support these functions.

Operations and Maintenance.—Provides essential electrical and communications equipment replacements and upgrades, capitalized moveable equipment, technical services, and supplies and materials necessary for the safe, reliable, and cost effective operation and maintenance of the power system.

Purchase Power and Wheeling.—Provides for the purchase and delivery of energy to meet limited peaking power contractual obligations. Federal power receipts and alternative financing methods, including net billing, and customer advances are used to fund system-purchased power support and other contractual services. Southwestern has implemented a Purchase Power and Wheeling (PPW) risk mitigation strategy to ensure continuous operations during periods of significant drought. The strategy was developed consistent with existing authorities, and with the participation and support of Southwestern's power customers. Under this approach, Southwestern retains receipts from the recovery of purchase power and wheeling expenses within the 'up to' amount specified by Congress. The receipts retained are available until expended and are available only for PPW expenses. As of the end of FY 2021, Southwestern's PPW reserve balance was \$86 million. Customers will provide other power resources and/or purchases for the remainder of their firm loads.

DISCRETIONARY PURCHASE POWER AND WHEELING, SOUTHWESTERN POWER ADMINISTRATION

(in millions of dollars)					
	2019 Actual	2020 Actual	2021 Actual	2022 Estimate ¹	2023 Estimate ¹
Limitation to collect, ('up to' ceiling in appropriations language)	50	43	34	70	70

Actual collections	36	26	34	70	70
PPW Unobligated balance brought forward, Oct 1	69	86	88	86	104
Spending authority from offsetting collections	36	26	34	70	70
Obligations incurred	-19	-24	-36	-52	-70
PPW Unobligated balance, end of year	86	88	86	104	104

¹The FY 2022 and FY 2023 Estimates assume spending authority from offsetting collections equals the 'up to' ceiling and that obligations incurred are the same amount as the spending authority for FY 2023. Actual spending authority from offsetting collections and actual obligations will be dependent upon variability in market prices for PPW and hydrological conditions in Southwestern's region, which vary significantly, are largely unpredictable, and can change quickly.

Construction.—Provides for replacement, addition or upgrade of existing infrastructure to sustain reliable delivery of power to its customers, contain annual maintenance costs, and improve overall efficiency.

Reimbursable Program.—This activity involves services provided by Southwestern to others under various types of reimbursable arrangements.

Object Classification (in millions of dollars)

Identification code 089-0303-0-1-271	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	18	18	19
11.5 Other personnel compensation	1		
11.9 Total personnel compensation	19	18	19
12.1 Civilian personnel benefits	6	6	6
21.0 Travel and transportation of persons	1	2	2
23.1 Rental payments to GSA		1	1
23.3 Communications, utilities, and miscellaneous charges	1	1	1
25.1 Advisory and assistance services	3		
25.2 Other services from non-Federal sources	3	69	79
25.3 Other goods and services from Federal sources	2	1	1
25.4 Operation and maintenance of facilities	35	4	4
26.0 Supplies and materials	1	2	2
31.0 Equipment	2	9	9
99.0 Direct obligations	73	113	124
99.0 Reimbursable obligations		52	52
99.9 Total new obligations, unexpired accounts	73	165	176

Employment Summary

Identification code 089-0303-0-1-271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	11	11	11
2001 Reimbursable civilian full-time equivalent employment	155	183	183

CONTINUING FUND, SOUTHWESTERN POWER ADMINISTRATION

Program and Financing (in millions of dollars)

Identification code 089-5649-0-2-271	2021 actual	2022 est.	2023 est.
4180 Budget authority, net (total)			
4190 Outlays, net (total)			
Memorandum (non-add) entries:			
5080 Outstanding debt, SOY	-68	-68	-68
5081 Outstanding debt, EOY	-68	-68	-68

A continuing fund, maintained from receipts from the sale and transmission of electric power in the Southwestern Power Administration service area, is available permanently for emergency expenses necessary to ensure continuity of electric service and continuous operation of the facilities. The fund is also available on an ongoing basis to pay for purchase power and wheeling expenses when the Administrator determines that such expenses are necessary to meet contractual obligations for the sale and delivery of power during periods of below-average generation (16 U.S.C. 825s-1 as amended further by Public Law 101-101). The fund was last activated in

CONTINUING FUND, SOUTHWESTERN POWER ADMINISTRATION—Continued
FY 2009 to repair and replace damaged transmission lines due to an ice storm.

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

For carrying out the functions authorized by title III, section 302(a)(1)(E) of the Act of August 4, 1977 (42 U.S.C. 7152), and other related activities including conservation and renewable resources programs as authorized, \$299,573,000, including official reception and representation expenses in an amount not to exceed \$1,500, to remain available until expended, of which \$299,573,000 shall be derived from the Department of the Interior Reclamation Fund: Provided, That notwithstanding 31 U.S.C. 3302, section 5 of the Flood Control Act of 1944 (16 U.S.C. 825s), and section 1 of the Interior Department Appropriation Act, 1939 (43 U.S.C. 392a), up to \$200,841,000 collected by the Western Area Power Administration from the sale of power and related services shall be credited to this account as discretionary off-setting collections, to remain available until expended, for the sole purpose of funding the annual expenses of the Western Area Power Administration: Provided further, That the sum herein appropriated for annual expenses shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2023 appropriation estimated at not more than \$98,732,000, of which \$98,732,000 is derived from the Reclamation Fund: Provided further, That notwithstanding 31 U.S.C. 3302, up to \$350,083,000 collected by the Western Area Power Administration pursuant to the Flood Control Act of 1944 and the Reclamation Project Act of 1939 to recover purchase power and wheeling expenses shall be credited to this account as offsetting collections, to remain available until expended for the sole purpose of making purchase power and wheeling expenditures: Provided further, That for purposes of this appropriation, annual expenses means expenditures that are generally recovered in the same year that they are incurred (excluding purchase power and wheeling expenses).

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

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

(INCLUDING TRANSFER OF FUNDS)

For an additional amount for "Construction, Rehabilitation, Operation and Maintenance, Western Area Power Administration", \$500,000,000, to remain available until expended, for the purchase of power and transmission services: Provided, That the amount made available under this heading in this Act shall be derived from the general fund of the Treasury and shall be reimbursable from amounts collected by the Western Area Power Administration pursuant to the Flood Control Act of 1944 and the Reclamation Project Act of 1939 to recover purchase power and wheeling expenses: Provided further, That such amounts as the Administrator, Western Area Power Administration, deems necessary for the same purposes as outlined above may be transferred to Western Area Power Administration's Colorado River Basins Power Marketing Fund account: Provided further, That such amount is designated by the Congress as being for an emergency requirement pursuant to section 4112(a) of H. Con. Res. 71 (115th Congress), the concurrent resolution on the budget for fiscal year 2018, and to section 251(b) of the Balanced Budget and Emergency Deficit Control Act of 1985. (Infrastructure Investments and Jobs Appropriations Act.)

Program and Financing (in millions of dollars)

Identification code 089-5068-0-2-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Systems operation and maintenance	46	45	47
0004 Program direction	40	41	43
0010 Annual Expenses	191	194	201
0011 Purchase Power and Wheeling	361	339	350
0091 Direct Program by Activities - Subtotal (1 level)	638	619	641
0100 Total operating expenses	638	619	641
0101 Capital investment	7	3	9
0799 Total direct obligations	645	622	650
0804 Other Reimbursable	356	655	406
0809 Reimbursable program activities, subtotal	356	655	406

0899 Total reimbursable obligations	356	655	406
0900 Total new obligations, unexpired accounts	1,001	1,277	1,056

Budgetary resources:
Unobligated balance:

1000 Unobligated balance brought forward, Oct 1	704	564	892
1021 Recoveries of prior year unpaid obligations	4		
1070 Unobligated balance (total)	708	564	892
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation		499	
1101 Appropriation (special or trust)	89	89	99
1160 Appropriation, discretionary (total)	89	588	99
Spending authority from offsetting collections, discretionary:			
1700 Collected	756	1,017	957
1701 Change in uncollected payments, Federal sources	12		
1750 Spending auth from offsetting collections, disc (total)	768	1,017	957
1900 Budget authority (total)	857	1,605	1,056
1930 Total budgetary resources available	1,565	2,169	1,948
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	564	892	892

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	273	301	489
3010 New obligations, unexpired accounts	1,001	1,277	1,056
3020 Outlays (gross)	-969	-1,089	-918
3040 Recoveries of prior year unpaid obligations, unexpired	-4		
3050 Unpaid obligations, end of year	301	489	627
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	-42	-54	-54
3070 Change in uncollected pymts, Fed sources, unexpired	-12		
3090 Uncollected pymts, Fed sources, end of year	-54	-54	-54
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	231	247	435
3200 Obligated balance, end of year	247	435	573

Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross	857	1,605	1,056
Outlays, gross:			
4010 Outlays from new discretionary authority	269	595	332
4011 Outlays from discretionary balances	700	494	586
4020 Outlays, gross (total)	969	1,089	918
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	-179	-218	-115
4033 Non-Federal sources	-577	-799	-842
4040 Offsets against gross budget authority and outlays (total)	-756	-1,017	-957
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	-12		
4070 Budget authority, net (discretionary)	89	588	99
4080 Outlays, net (discretionary)	213	72	-39
4180 Budget authority, net (total)	89	588	99
4190 Outlays, net (total)	213	72	-39

Memorandum (non-add) entries:

5080 Outstanding appropriated debt, SOY	-11,645	-11,807	-12,396
5081 Outstanding appropriated debt, EOY	-11,807	-12,396	-12,495

The Western Area Power Administration (WAPA) markets electric power in 15 central and western states from federally owned power plants operated primarily by the Bureau of Reclamation, the Army Corps of Engineers, and the International Boundary and Water Commission. WAPA operates and maintains about 17,000 circuit-miles of high-voltage transmission lines, more than 300 substations/switchyards and associated power system controls, and communication and electrical facilities for 15 separate power projects. WAPA also constructs additions and modifications to existing facilities.

In keeping with statutory requirements, WAPA's long-term power contracts allow for periodic rate adjustments to ensure that the Federal Government recovers costs of operations, other costs allocated to power, and the capital investment in power facilities, with interest.

Power is sold to nearly 700 wholesale customers, including DOE's National Labs, more than two dozen U.S. Department of Defense installations, municipalities, cooperatives, irrigation districts, public utility districts, other State and Federal Government agencies, and private utilities. Receipts are deposited in the Reclamation Fund, the Falcon and Amistad Operating and Maintenance Fund, the General Fund, the Colorado River Dam Fund, and the Colorado River Basins Power Marketing Fund.

As in past years, the budget continues to provide funding for annual expenses and purchase power and wheeling expenses through discretionary offsetting collections derived from power receipts collected to recover those expenses.

Systems Operation and Maintenance.—Provides essential electrical and communication equipment replacements and upgrades, capitalized moveable equipment, technical services, and supplies and materials necessary for safe reliable operation and cost-effective maintenance of the power systems.

Purchase Power and Wheeling.—Provision is made for the payment of wheeling fees and for the purchase of electricity in connection with the distribution of power under contracts with utility companies. Customers are encouraged to contract for power and wheeling on their own, or use alternative funding mechanisms, including customer advances, net billing, and bill crediting to finance these activities. Ongoing operating services are also available on a reimbursable basis.

WAPA has implemented a Purchase Power and Wheeling (PPW) risk mitigation strategy to ensure continuous operations during periods of significant drought. The strategy was developed consistent with existing authorities, and with the participation and support of WAPA power customers. Under this approach, WAPA retains receipts from the recovery of purchase power and wheeling expenses within the 'up to' amount specified by Congress. The receipts retained are available until expended, and are available only for purchase power and wheeling expenses. As of the end of FY 2021, WAPA's PPW reserve balance was \$217 million.

DISCRETIONARY PURCHASE POWER AND WHEELING, WESTERN AREA POWER ADMINISTRATION¹

	(in millions of dollars)				
	2019 Actual	2020 Actual	2021 Actual	2022 Estimate	2023 Estimate
Limitation to collect, ('up to' ceiling in appropriations language)	225	227	192	192	350
Actual collections	225	171	192	192	350
PPW Unobligated balance brought forward, Oct 1	282	362	386	217	70
Spending authority from offsetting collections	225	171	192	192	350
Obligations incurred	-145	-147	-361	-339	-350
PPW Unobligated balance, end of year (excluding BIL)	362	386	217	70	70
Cumulative application of BIL funding				250	415
PPW Unobligated balance, end of year				320	485

¹Excludes alternative financing for PPW.

System Construction.—WAPA's construction and rehabilitation activity emphasizes replacement and upgrades of existing infrastructure to sustain reliable power delivery to its customers, to contain annual maintenance costs, and to improve overall operational efficiency. WAPA will continue to participate in joint construction projects with customers to encourage more widespread transmission access.

Program Direction.—Provides compensation and all related expenses for the workforce that operates and maintains WAPA's high-voltage interconnected transmission system (systems operation and maintenance program), and those that plan, design, and supervise the construction of replacements, upgrades, and additions (system construction program) to the transmission facilities.

Reimbursable Program.—This program involves services provided by WAPA to others under various types of reimbursable arrangements. WAPA's reimbursable authority and partnerships also support responses to natural disasters - to restore the energy infrastructure and access to power.

WAPA will continue to spend out of the Colorado River Dam Fund for operations and maintenance activities associated with the Boulder Canyon Project via a reimbursable arrangement with the Interior Department's Bureau of Reclamation. The Colorado River Dam Fund is a revolving fund operated by the Bureau of Reclamation. Authority for WAPA to obligate directly from the Colorado River Dam Fund comes from section 104(a) of the Hoover Power Plant Act of 1984.

The Bipartisan Infrastructure Law (BIL) (Infrastructure Investment and Jobs Act, P.L. 117–58) provided WAPA with additional resources for purchase power and wheeling.

Object Classification (in millions of dollars)

Identification code 089–5068–0–2–271	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	81	101	106
11.3 Other than full-time permanent	12		
11.5 Other personnel compensation	11	7	7
11.9 Total personnel compensation	104	108	113
12.1 Civilian personnel benefits	36	35	37
21.0 Travel and transportation of persons	2	8	7
22.0 Transportation of things	2		
23.1 Rental payments to GSA	1	2	1
23.2 Rental payments to others	1		
23.3 Communications, utilities, and miscellaneous charges	4	6	7
25.1 Advisory and assistance services	30	29	29
25.2 Other services from non-Federal sources	396	365	376
25.3 Other goods and services from Federal sources		3	3
25.7 Operation and maintenance of equipment	10	9	9
26.0 Supplies and materials	8	10	14
31.0 Equipment	26	25	27
32.0 Land and structures	25	22	27
99.0 Direct obligations	645	622	650
99.0 Reimbursable obligations	356	655	406
99.9 Total new obligations, unexpired accounts	1,001	1,277	1,056

Employment Summary

Identification code 089–5068–0–2–271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	829	852	857
2001 Reimbursable civilian full-time equivalent employment	353	350	344

WESTERN AREA POWER ADMINISTRATION, BORROWING AUTHORITY, RECOVERY ACT

Program and Financing (in millions of dollars)

Identification code 089–4404–0–3–271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0102 Transmission Infrastructure Program Projects		400	200
0811 Western Area Power Administration, Borrowing Authority, Recovery (Reimbursable)	7	17	19
0900 Total new obligations, unexpired accounts	7	417	219
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	14	13	13
1001 Discretionary unobligated balance brought fwd, Oct 1	5	4	
Budget authority:			
Borrowing authority, mandatory:			
1400 Borrowing authority		424	212
1421 Borrowing authority temporarily reduced		-24	-12
1440 Borrowing authority, mandatory (total)		400	200
Spending authority from offsetting collections, discretionary:			
1700 Collected	3	12	13
Spending authority from offsetting collections, mandatory:			
1800 Collected	3	5	6
1900 Budget authority (total)	6	417	219
1930 Total budgetary resources available	20	430	232
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	13	13	13

WESTERN AREA POWER ADMINISTRATION, BORROWING AUTHORITY, RECOVERY
ACT—Continued
Program and Financing—Continued

Identification code 089-4404-0-3-271	2021 actual	2022 est.	2023 est.
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	20	20	103
3010 New obligations, unexpired accounts	7	417	219
3020 Outlays (gross)	-7	-334	-259
3050 Unpaid obligations, end of year	20	103	63
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	20	20	103
3200 Obligated balance, end of year	20	103	63
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	3	12	13
Outlays, gross:			
4010 Outlays from new discretionary authority		12	13
4011 Outlays from discretionary balances	3	5	
4020 Outlays, gross (total)	3	17	13
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	-2	-2	-2
4033 Non-Federal sources	-1	-10	-11
4040 Offsets against gross budget authority and outlays (total)	-3	-12	-13
4080 Outlays, net (discretionary)		5	
Mandatory:			
4090 Budget authority, gross	3	405	206
Outlays, gross:			
4100 Outlays from new mandatory authority		301	154
4101 Outlays from mandatory balances	4	16	92
4110 Outlays, gross (total)	4	317	246
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4123 Non-Federal sources	-3	-5	-6
4180 Budget authority, net (total)		400	200
4190 Outlays, net (total)	1	317	240

The American Recovery and Reinvestment Act of 2009 (the Act) provided Western Area Power Administration (WAPA) borrowing authority for the purpose of constructing, financing, facilitating, planning, operating, maintaining, or studying construction of new or upgraded electric power transmission lines and related facilities with at least one terminus within the area served by WAPA, and for delivering or facilitating the delivery of power generated by renewable energy resources. This authority to borrow from the United States Treasury is available to WAPA on a permanent, indefinite basis, with the amount of borrowing outstanding not to exceed \$3.25 billion at any one time. WAPA established the Transmission Infrastructure Program (TIP) to manage and administer this borrowing authority and its related program requirements.

Object Classification (in millions of dollars)

Identification code 089-4404-0-3-271	2021 actual	2022 est.	2023 est.
25.2 Direct obligations: Other services from non-Federal sources		400	200
99.0 Direct obligations		400	200
Reimbursable obligations:			
11.1 Personnel compensation: Full-time permanent	1	2	2
25.2 Other services from non-Federal sources	4	12	10
43.0 Interest and dividends	2	3	7
99.0 Reimbursable obligations	7	17	19
99.9 Total new obligations, unexpired accounts	7	417	219

Employment Summary

Identification code 089-4404-0-3-271	2021 actual	2022 est.	2023 est.
2001 Reimbursable civilian full-time equivalent employment	5	11	12

EMERGENCY FUND, WESTERN AREA POWER ADMINISTRATION

Program and Financing (in millions of dollars)

Identification code 089-5069-0-2-271	2021 actual	2022 est.	2023 est.
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	1	1	1
1930 Total budgetary resources available	1	1	1
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	1	1	1
4180 Budget authority, net (total)			
4190 Outlays, net (total)			
Memorandum (non-add) entries:			
5080 Outstanding debt, SOY	-55	-55	-55
5081 Outstanding debt, EOY	-55	-55	-55

An emergency fund maintained from receipts from the sale and transmission of electric power is available to defray expenses necessary to ensure continuity of service. The fund was last activated in fiscal year 2010 to repair and replace damaged transmission lines due to severe winter storm conditions.

FALCON AND AMISTAD OPERATING AND MAINTENANCE FUND

For operation, maintenance, and emergency costs for the hydroelectric facilities at the Falcon and Amistad Dams, \$6,330,000, to remain available until expended, and to be derived from the Falcon and Amistad Operating and Maintenance Fund of the Western Area Power Administration, as provided in section 2 of the Act of June 18, 1954 (68 Stat. 255): Provided, That notwithstanding the provisions of that Act and of 31 U.S.C. 3302, up to \$6,102,000 collected by the Western Area Power Administration from the sale of power and related services from the Falcon and Amistad Dams shall be credited to this account as discretionary offsetting collections, to remain available until expended for the sole purpose of funding the annual expenses of the hydroelectric facilities of these Dams and associated Western Area Power Administration activities: Provided further, That the sum herein appropriated for annual expenses shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2023 appropriation estimated at not more than \$228,000: Provided further, That for purposes of this appropriation, annual expenses means expenditures that are generally recovered in the same year that they are incurred: Provided further, That for fiscal year 2023, the Administrator of the Western Area Power Administration may accept up to \$1,598,000 in funds contributed by United States power customers of the Falcon and Amistad Dams for deposit into the Falcon and Amistad Operating and Maintenance Fund, and such funds shall be available for the purpose for which contributed in like manner as if said sums had been specifically appropriated for such purpose: Provided further, That any such funds shall be available without further appropriation and without fiscal year limitation for use by the Commissioner of the United States Section of the International Boundary and Water Commission for the sole purpose of operating, maintaining, repairing, rehabilitating, replacing, or upgrading the hydroelectric facilities at these Dams in accordance with agreements reached between the Administrator, Commissioner, and the power customers.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Special and Trust Fund Receipts (in millions of dollars)

Identification code 089-5178-0-2-271	2021 actual	2022 est.	2023 est.
0100 Balance, start of year	11	11	11
2000 Total: Balances and receipts	11	11	11
5099 Balance, end of year	11	11	11

Program and Financing (in millions of dollars)

Identification code 089-5178-0-2-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Annual Expenses	5	6	6
0100 Direct program activities, subtotal	5	6	6

0802	Reimbursable program activity - Alternative Financing	1	2	2
0899	Total reimbursable obligations	1	2	2
0900	Total new obligations, unexpired accounts	6	8	8
Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	2	3	3
Budget authority:				
Spending authority from offsetting collections, discretionary:				
1700	Offsetting collections	7	8	8
1930	Total budgetary resources available	9	11	11
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	3	3	3
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	5	5	3
3010	New obligations, unexpired accounts	6	8	8
3020	Outlays (gross)	-6	-10	-8
3050	Unpaid obligations, end of year	5	3	3
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	5	5	3
3200	Obligated balance, end of year	5	3	3
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	7	8	8
Outlays, gross:				
4010	Outlays from new discretionary authority	1	5	5
4011	Outlays from discretionary balances	5	5	3
4020	Outlays, gross (total)	6	10	8
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4033	Non-Federal sources	-7	-8	-8
4180	Budget authority, net (total)			
4190	Outlays, net (total)	-1	2	

Pursuant to section 2 of the Act of June 18, 1954, as amended, Western Area Power Administration is requesting funding for the Falcon and Amistad Operating and Maintenance Fund to defray operations, maintenance, and emergency (OM&E) expenses for the hydroelectric facilities at Falcon and Amistad Dams on the Rio Grande River. Most of these funds will be made available to the United States Section of the International Boundary and Water Commission through a reimbursable agreement. Within the fund, \$200,000 is for an emergency reserve that will remain unobligated unless unanticipated expenses arise. The budget provides funding for annual expenses through discretionary offsetting collections derived from power receipts collected to recover those expenses. The budget also provides authority to use customer advances. The contributed customer funds will finance the capital replacement requirements of the projects.

Object Classification (in millions of dollars)

Identification code 089-5178-0-2-271	2021 actual	2022 est.	2023 est.
25.3 Direct obligations: Other goods and services from Federal sources	5	6	6
99.0 Reimbursable obligations	1	2	2
99.9 Total new obligations, unexpired accounts	6	8	8

COLORADO RIVER BASINS POWER MARKETING FUND, WESTERN AREA POWER ADMINISTRATION

Program and Financing (in millions of dollars)

Identification code 089-4452-0-3-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0801 Program direction	73	74	79
0802 Equipment, Contracts and Related Expenses	193	163	179
0900 Total new obligations, unexpired accounts	266	237	258

Budgetary resources:				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1	142	91	91
Budget authority:				
Spending authority from offsetting collections, discretionary:				
1700	Collected	236	258	267
1710	Spending authority from offsetting collections transferred to other accounts [014-4081]	-21	-21	.....
1720	Capital transfer of spending authority from offsetting collections to general fund .....	.....	.....	-9
1750	Spending auth from offsetting collections, disc (total)	215	237	258
1930	Total budgetary resources available	357	328	349
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year	91	91	91
<hr/>				
Change in obligated balance:				
Unpaid obligations:				
3000	Unpaid obligations, brought forward, Oct 1	53	68	113
3010	New obligations, unexpired accounts	266	237	258
3020	Outlays (gross)	-251	-192	-243
3050	Unpaid obligations, end of year	68	113	128
Uncollected payments:				
3060	Uncollected pymts, Fed sources, brought forward, Oct 1	-1	-1	-1
3090	Uncollected pymts, Fed sources, end of year	-1	-1	-1
Memorandum (non-add) entries:				
3100	Obligated balance, start of year	52	67	112
3200	Obligated balance, end of year	67	112	127
<hr/>				
Budget authority and outlays, net:				
Discretionary:				
4000	Budget authority, gross	215	237	258
Outlays, gross:				
4010	Outlays from new discretionary authority	67	53	58
4011	Outlays from discretionary balances	184	139	185
4020	Outlays, gross (total)	251	192	243
Offsets against gross budget authority and outlays:				
Offsetting collections (collected) from:				
4030	Federal sources	-5	-5	-5
4033	Non-Federal sources	-231	-253	-262
4040	Offsets against gross budget authority and outlays (total)	-236	-258	-267
4070	Budget authority, net (discretionary)	-21	-21	-9
4080	Outlays, net (discretionary)	15	-66	-24
4180	Budget authority, net (total)	-21	-21	-9
4190	Outlays, net (total)	15	-66	-24

Western Area Power Administration's (WAPA) operation and maintenance (O&M) and power marketing expenses for the Colorado River Storage Project, the Seedsdakee Project, the Dolores Project, the Olmsted Replacement Project, and the Fort Peck Project are financed from power revenues.

Colorado River Storage Project.—WAPA markets power and operates and maintains the power transmission facilities of the Colorado River Storage Project consisting of four major storage units: Glen Canyon on the Colorado River in Arizona, Flaming Gorge on the Green River in Utah, Navajo on the San Juan River in New Mexico, and the Wayne N. Aspinall unit on the Gunnison River in Colorado.

Seedsdakee Project.—This project includes WAPA's expenses for O&M, power marketing, and transmission of hydroelectric power from the Fontenelle Dam power plant in southwestern Wyoming.

Dolores Project.—This project includes WAPA's expenses for O&M, power marketing, and transmission of hydroelectric power from power plants at McPhee Dam and Towaoc Canal in southwestern Colorado.

Fort Peck Project.—Revenues collected by WAPA are used to defray operation and maintenance and power marketing expenses associated with the power generation and transmission facilities of the Fort Peck Project, and WAPA operates and maintains the transmission system and performs power marketing functions.

Olmsted Replacement Project.—This project includes WAPA's expenses for power marketing of hydroelectric power from the Olmsted Power Plant in Northern Utah.

Equipment, Contracts and Related Expenses.—WAPA operates and maintains approximately 4,000 miles of transmission lines, substations, switchyards, communications, and control equipment associated with this

COLORADO RIVER BASINS POWER MARKETING FUND, WESTERN AREA POWER
ADMINISTRATION—Continued

fund. Wholesale power is provided to utilities over interconnected high-voltage transmission systems. In keeping with statutory requirements, long-term power contracts provide for periodic rate adjustments to ensure that the Federal Government recovers all costs of O&M, and all capital invested in power, with interest. This activity provides for the supplies, materials, services, capital equipment replacements, and additions, including communications and control equipment, purchase power, transmission and wheeling services, and interest payments to the U.S. Treasury.

Program Direction.—The personnel compensation and related expenses for all these activities are quantified under Program Direction.

Object Classification (in millions of dollars)

Identification code 089-4452-0-3-271	2021 actual	2022 est.	2023 est.
Reimbursable obligations:			
Personnel compensation:			
11.1 Full-time permanent	33	34	39
11.5 Other personnel compensation	5	5	3
11.9 Total personnel compensation	38	39	42
12.1 Civilian personnel benefits	13	13	13
21.0 Travel and transportation of persons	1	2	2
22.0 Transportation of things	1	1	2
23.1 Rental payments to GSA	1	1	1
23.3 Communications, utilities, and miscellaneous charges	2	2	2
25.1 Advisory and assistance services	8	7	9
25.2 Other services from non-Federal sources	143	115	131
25.3 Other goods and services from Federal sources	22	29	29
25.7 Operation and maintenance of equipment	16	5	3
26.0 Supplies and materials	2	4	3
31.0 Equipment	5	5	9
32.0 Land and structures	15	12	9
43.0 Interest and dividends	2	2	3
99.9 Total new obligations, unexpired accounts	266	237	258

Employment Summary

Identification code 089-4452-0-3-271	2021 actual	2022 est.	2023 est.
2001 Reimbursable civilian full-time equivalent employment	294	308	308

BONNEVILLE POWER ADMINISTRATION FUND

Expenditures from the Bonneville Power Administration Fund, established pursuant to Public Law 93-454, are approved for the Colville Tribes Residents Fish Hatchery Expansion, Chief Joseph Hatchery Water Quality Project, and Umatilla Hatchery Facility Project, and, in addition, for official reception and representation expenses in an amount not to exceed \$5,000: Provided, That during fiscal year 2023, no new direct loan obligations may be made.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-4045-0-3-271	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0801 Power business line	1,089	889	912
0802 Residential exchange	250	259	259
0803 Bureau of Reclamation	150	152	153
0804 Corp of Engineers	236	253	253
0805 Colville settlement / Spokane settlement	25	28	27
0806 U.S. Fish & Wildlife	31	33	29
0807 Planning council	11	12	12
0808 Fish and Wildlife	241	247	247
0809 Reimbursable program activities, subtotal	2,033	1,873	1,892
0811 Transmission business line	494	508	515
0812 Conservation and energy efficiency	145	156	151
0813 Interest	187	162	165
0814 Pension and health benefits	33	31	32
0819 Reimbursable program activities, subtotal	859	857	863
0821 Power business line	202	264	281

0822 Transmission services	348	476	497
0824 Fish and Wildlife	42	43	43
0825 Capital Equipment	26	22	21
0826 Projects funded in advance	63	56	61
0829 Reimbursable program activities, subtotal	681	861	903
0900 Total new obligations, unexpired accounts	3,573	3,591	3,658

Budgetary resources:

Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	11	9	522
1023 Unobligated balances applied to repay debt .....	.....	-1	-514
1070 Unobligated balance (total)	11	8	8
Budget authority:			
Borrowing authority, mandatory:			
1400 Borrowing authority	737	805	842
Contract authority, mandatory:			
1600 Contract authority	2,379	.....	.....
Spending authority from offsetting collections, mandatory:			
1800 Collected	3,763	3,999	3,969
1801 Change in uncollected payments, Federal sources	-33	.....	.....
1802 Offsetting collections (previously unavailable)	8	7	7
1823 New and/or unobligated balance of spending authority from offsetting collections temporarily reduced	-7	-7	-7
1825 Spending authority from offsetting collections applied to repay debt	-757	-699	-734
1826 Spending authority from offsetting collections applied to liquidate contract authority	-2,519	.....	.....
1850 Spending auth from offsetting collections, mand (total)	455	3,300	3,235
1900 Budget authority (total)	3,571	4,105	4,077
1930 Total budgetary resources available	3,582	4,113	4,085
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	9	522	427

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	3,380	3,444	3,444
3010 New obligations, unexpired accounts	3,573	3,591	3,658
3020 Outlays (gross)	-3,509	-3,591	-3,660
3050 Unpaid obligations, end of year	3,444	3,444	3,442
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1	-349	-316	-316
3070 Change in uncollected pymts, Fed sources, unexpired	33	.....	.....
3090 Uncollected pymts, Fed sources, end of year	-316	-316	-316
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	3,031	3,128	3,128
3200 Obligated balance, end of year	3,128	3,128	3,126

Budget authority and outlays, net:

Mandatory:			
4090 Budget authority, gross	3,571	4,105	4,077
Outlays, gross:			
4100 Outlays from new mandatory authority	3,341	3,391	3,460
4101 Outlays from mandatory balances	168	200	200
4110 Outlays, gross (total)	3,509	3,591	3,660
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4120 Federal sources	-51	-90	-90
4123 Non-Federal sources	-3,712	-3,909	-3,879
4130 Offsets against gross budget authority and outlays (total)	-3,763	-3,999	-3,969
Additional offsets against gross budget authority only:			
4140 Change in uncollected pymts, Fed sources, unexpired	33	.....	.....
4160 Budget authority, net (mandatory)	-159	106	108
4170 Outlays, net (mandatory)	-254	-408	-309
4180 Budget authority, net (total)	-159	106	108
4190 Outlays, net (total)	-254	-408	-309

Memorandum (non-add) entries:

5000 Total investments, SOY: Federal securities: Par value	491	.....	.....
5052 Obligated balance, SOY: Contract authority	2,519	2,379	2,379
5053 Obligated balance, EOY: Contract authority	2,379	2,379	2,379
5090 Unexpired unavailable balance, SOY: Offsetting collections	8	7	7
5092 Unexpired unavailable balance, EOY: Offsetting collections	7	7	7

Status of Direct Loans (in millions of dollars)

Identification code 089-4045-0-3-271	2021 actual	2022 est.	2023 est.
Cumulative balance of direct loans outstanding:			
1210 Outstanding, start of year	2	2	2

1290	Outstanding, end of year	2	2	2
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Bonneville Power Administration (BPA) is a Federal electric power marketing agency in the Pacific Northwest. BPA markets hydroelectric power from 21 multipurpose water resource projects of the U.S. Army Corps of Engineers and 10 projects of the U.S. Bureau of Reclamation, plus some energy from non-Federal generating projects in the region. These generating resources and BPA's transmission system are operated as an integrated power system with operating and financial results combined and reported as the Federal Columbia River Power System (FCRPS). BPA provides about 50 percent of the region's electric energy supply and about three-fourths of the region's high-voltage electric power transmission capacity.

BPA is responsible for meeting the net firm power requirements of its requesting customers through a variety of means, including energy conservation programs, acquisition of renewable and other resources, and power exchanges with utilities both in and outside the region.

BPA finances its operations with a business-type budget under the Government Corporation Control Act, 31 U.S.C. 9101–10, on the basis of the self-financing authority provided by the Federal Columbia River Transmission System Act of 1974 (Transmission Act) (Public Law 93–454) and the U.S. Treasury borrowing authority provided by the Transmission Act, the Pacific Northwest Electric Power Planning and Conservation Act (Pacific Northwest Power Act) (Public Law 96–501) for energy conservation, renewable energy resources, capital fish facilities, and other purposes, the American Recovery and Reinvestment Act of 2009 (Public Law 111–5), Infrastructure Investment and Jobs Act of 2021 (section 40110) (Public Law 117–58), and other legislation. Authority to borrow from the U.S. Treasury is available to the BPA on a permanent, indefinite basis. The amount of U.S. Treasury borrowing outstanding at any time cannot exceed \$17.70 billion. BPA finances its approximate \$4.4 billion annual cost of operations and investments primarily using power and transmission revenues and loans from the U.S. Treasury.

Operating Expenses—Transmission Services.—Provides for operating over 15,100 circuit miles of high-voltage transmissions lines and 262 substations, and for maintaining the facilities and equipment of the Bonneville transmission system in 2023.

Power Services.—Provides for the planning, contractual acquisition and oversight of reliable, cost effective resources. These resources are needed to serve BPA's portion of the region's forecasted net electric load requirements. This activity also includes protection, mitigation and enhancement of fish and wildlife affected by hydroelectric facilities on the Columbia River and its tributaries in accordance with the Pacific Northwest Power Act. This activity provides for payment of the operation and maintenance (O&M) costs allocated to power the 31 U.S. Army Corps of Engineers and U.S. Bureau of Reclamation hydro projects, amortization on the capital investment in power generating facilities, and irrigation assistance at U.S. Bureau of Reclamation facilities. This activity also provides for the planning, contractual acquisition and oversight of reliable, cost effective conservation. It also provides for extending the benefits of low-cost Federal power to the residential and small farm customers of investor-owned and publicly owned utilities, in accordance with the Pacific Northwest Power Act and for activities of the Pacific Northwest Electric Power and Conservation Planning Council required by the Pacific Northwest Power Act.

Interest.—Provides for payments to the U.S. Treasury for interest on U.S. Treasury borrowings to finance BPA's capital investments under \$17.70 billion of U.S. Treasury borrowing authority provided by the Transmission Act; the Pacific Northwest Power Act for energy conservation, renewable energy resources, capital fish facilities, and other purposes; the American Recovery and Reinvestment Act of 2009; Infrastructure Investment and Jobs Act of 2021, and other legislation. This interest category also includes interest on U.S. Army Corps of Engineers, BPA and U.S. Bureau of Reclamation appropriated debt.

Capital Investments—Transmission Services.—Provides for the planning, design and construction of transmission lines, substation and control system

additions, replacements, and enhancements to the FCRPS transmission system for a reliable, efficient and cost-effective regional transmission system. Provides for planning, design, and construction work to repair or replace existing transmission lines, substations, control systems, and general facilities of the FCRPS transmission system.

Power Services.—Provides for direct funding of additions, improvements, and replacements at existing Federal hydroelectric projects in the Northwest. It also provides for capital investments to implement environmental activities, and protect, mitigate, and enhance fish and wildlife affected by hydroelectric facilities on the Columbia River and its tributaries, in accordance with the Pacific Northwest Power Act. This activity provides for the planning, contractual acquisition and oversight of reliable, cost effective conservation.

Capital Equipment/Capitalized Bond Premium.—Provides for capital information technologies, office furniture and equipment, and software capital development in support of all BPA programs. It also provides for bond premiums incurred for refinancing of bonds.

Total Capital Obligations.—The 2023 capital obligations are estimated to be \$842.5 million.

Contingencies.—Although contingencies are not specifically funded, the need may arise to provide for purchase of power in low-water years; for repair and/or replacement of facilities affected by natural and man-made emergencies, including the resulting additional costs for contracting, construction, and operation and maintenance work; for unavoidable increased costs for the planned program due to necessary but unforeseen adjustments, including engineering and design changes, contractor and other claims and relocations; or for payment of a retrospective premium adjustment in excess nuclear property insurance.

Financing.—The Transmission Act provides for the use by BPA of all receipts, collections, and recoveries in cash from all sources, including the sale of bonds, to finance the annual budget programs of BPA. These receipts result primarily from the sale of power and transmission services. The Transmission Act also provides for authority to borrow from the U.S. Treasury at rates comparable to borrowings at open market rates for similar issues. BPA has \$17.70 billion of U.S. Treasury borrowing authority provided by the Transmission Act; the Pacific Northwest Power Act for energy conservation, renewable energy resources, capital fish facilities, and other purposes; the American Recovery and Reinvestment Act of 2009; Infrastructure Investment and Jobs Act of 2021, and other legislation. At the end of 2021, BPA had outstanding bonds with the U.S. Treasury of \$5,629 million. At the end of 2021, BPA also had \$7,191.1 million of non-Federal debt outstanding, including Energy Northwest bonds. BPA will rely primarily on its U.S. Treasury borrowing authority to finance capital projects, but may also elect to use cash reserves generated by revenues from customers or seek third party financing sources when feasible to finance some of these investments.

In 2021, BPA made payments to the Treasury of \$1,049 million and also expects to make payments of \$935 million in 2022 and \$971 million in 2023. The 2023 payment is expected to be distributed as follows: interest on bonds and appropriations (\$192 million), amortization (\$734 million), and other (\$45 million). BPA also received credits totaling approximately \$111 million applied against its Treasury payments in 2021 of which \$90.6 million reflected amounts diverted to fish mitigation efforts, but not allocable to power, in the Columbia and Snake River systems.

BPA, with input from its stakeholders, considers other strategies to sustain funding for its infrastructure investment requirements as well. BPA's Financial Plan defines strategies and policies for guiding how BPA will manage risk and variability of electricity markets and water years. It also describes how BPA will continue to manage to ensure it meets its Treasury repayment responsibilities.

Direct Loans.—During 2023, no new direct loan obligations may be made.

Operating Results.—Total revenues are forecast at approximately \$3.9 billion in 2023.

BONNEVILLE POWER ADMINISTRATION FUND—Continued

It should be noted that BPA's revenue forecasts are based on several critical assumptions about both the supply of and demand for Federal energy. During the operating year, deviation from the conditions assumed in a rate case may result in a variation in actual revenues of several hundred million dollars from the forecast.

Consistent with Administration policy, BPA will continue to fully recover, from the sale of electric power and transmission, funds sufficient to cover the full cost of Civil Service Retirement System and Post-Retirement Health Benefits for its employees. The entire cost of BPA and the power share of FCRPS U.S. Army Corps of Engineers and U.S. Bureau of Reclamation employees working under the Federal Employees Retirement System is fully recovered in wholesale electric power and transmission rates.

Balance Sheet (in millions of dollars)

Identification code 089-4045-0-3-271	2020 actual	2021 actual
ASSETS:		
Federal assets:		
1101 Fund balances with Treasury	55	780
Investments in U.S. securities:		
1106 Receivables, net	493	
1206 Non-Federal assets: Receivables, net	348	336
1601 Direct loans, gross		
1605 Accounts receivable from foreclosed property		
1699 Value of assets related to direct loans		
Other Federal assets:		
1801 Cash and other monetary assets		20
1802 Inventories and related properties	108	110
1803 Property, plant and equipment, net	7,581	7,739
1901 Other assets	13,457	13,125
1999 Total assets	22,042	22,110
LIABILITIES:		
Federal liabilities:		
2102 Interest payable	84	62
2103 Debt	7,888	5,700
Non-Federal liabilities:		
2201 Accounts payable	390	524
2203 Debt	5,023	5,043
2207 Other	8,657	10,781
2999 Total liabilities	22,042	22,110
NET POSITION:		
3300 Cumulative results of operations		
4999 Total liabilities and net position	22,042	22,110

Object Classification (in millions of dollars)

Identification code 089-4045-0-3-271	2021 actual	2022 est.	2023 est.
Reimbursable obligations:			
11.1 Personnel compensation: Full-time permanent	344	346	352
12.1 Civilian personnel benefits	164	165	168
21.0 Travel and transportation of persons	1	1	1
22.0 Transportation of things	1	1	1
23.2 Rental payments to others	34	34	34
23.3 Communications, utilities, and miscellaneous charges	10	10	10
25.1 Advisory and assistance services	131	132	134
25.2 Other services from non-Federal sources	2,415	2,426	2,471
25.5 Research and development contracts	2	4	4
26.0 Supplies and materials	24	24	25
31.0 Equipment	85	85	87
32.0 Land and structures	79	79	81
41.0 Grants, subsidies, and contributions	47	47	48
43.0 Interest and dividends	236	237	242
99.9 Total new obligations, unexpired accounts	3,573	3,591	3,658

Employment Summary

Identification code 089-4045-0-3-271	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	2,825	3,000	3,000

DEPARTMENTAL ADMINISTRATION

Federal Funds

DEPARTMENTAL ADMINISTRATION

For salaries and expenses of the Department of Energy necessary for departmental administration in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101 et seq.), \$497,781,000, to remain available until September 30, 2024, including the hire of zero emission passenger motor vehicles and supporting charging or fueling infrastructure, and official reception and representation expenses not to exceed \$30,000, plus such additional amounts as necessary to cover increases in the estimated amount of cost of work for others notwithstanding the provisions of the Anti-Deficiency Act (31 U.S.C. 1511 et seq.): Provided, That such increases in cost of work are offset by revenue increases of the same or greater amount: Provided further, That moneys received by the Department for miscellaneous revenues estimated to total \$100,578,000 in fiscal year 2023 may be retained and used for operating expenses within this account, as authorized by section 201 of Public Law 95-238, notwithstanding the provisions of 31 U.S.C. 3302: Provided further, That the sum herein appropriated shall be reduced as collections are received during the fiscal year so as to result in a final fiscal year 2023 appropriation from the general fund estimated at not more than \$397,203,000.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0228-0-1-276	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0003 Office of the Secretary	5	5	7
0004 Office of Congressional and Intergovernmental Affairs	5	6	7
0005 Office of Public Affairs	5	5	6
0006 General Counsel	35	38	44
0008 Economic Impact and Diversity	11	11	34
0009 Chief Financial Officer	8	10	62
0010 Chief Information Officer			63
0011 Human Capital Management	24	24	34
0012 Indian Energy Policy	1		
0013 Office of Policy	10	10	31
0014 International Affairs	27	27	62
0015 Office of Small and Disadvantaged Business Utilization	4	4	4
0018 Management	56	58	86
0020 Project Management Oversight and Assessment	12	13	14
0025 Office of Technology Transitions	19	13	
0030 Artificial Intelligence Technology Office	2	2	3
0045 Strategic partnership projects	9	16	16
0050 CARES Act IT Supplemental	9		
0799 Total direct obligations	242	242	473
0801 Departmental Administration (Reimbursable)	6	6	6
0900 Total new obligations, unexpired accounts	248	248	479

Budgetary resources:

Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	84	85	91
1001 Discretionary unobligated balance brought fwd, Oct 1	83		
1020 Adjustment of unobligated bal brought forward, Oct 1	1		
1021 Recoveries of prior year unpaid obligations	4		
1070 Unobligated balance (total)	89	85	91
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	190	159	397
Spending authority from offsetting collections, discretionary:			
1700 Collected	72	95	101
1701 Change in uncollected payments, Federal sources	8		
1750 Spending auth from offsetting collections, disc (total)	80	95	101
1900 Budget authority (total)	270	254	498
1930 Total budgetary resources available	359	339	589
Memorandum (non-add) entries:			
1940 Unobligated balance expiring	-26		
1941 Unexpired unobligated balance, end of year	85	91	110

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	118	100	116
3010 New obligations, unexpired accounts	248	248	479
3020 Outlays (gross)	-257	-232	-395
3040 Recoveries of prior year unpaid obligations, unexpired	-4		

3041	Recoveries of prior year unpaid obligations, expired	-5		
3050	Unpaid obligations, end of year	100	116	200
	Uncollected payments:			
3060	Uncollected pymts, Fed sources, brought forward, Oct 1	-3	-12	-12
3061	Adjustments to uncollected pymts, Fed sources, brought forward, Oct 1	-1		
3070	Change in uncollected pymts, Fed sources, unexpired	-8		
3090	Uncollected pymts, Fed sources, end of year	-12	-12	-12
	Memorandum (non-add) entries:			
3100	Obligated balance, start of year	114	88	104
3200	Obligated balance, end of year	88	104	188
Budget authority and outlays, net:				
	Discretionary:			
4000	Budget authority, gross	270	254	498
	Outlays, gross:			
4010	Outlays from new discretionary authority	160	133	313
4011	Outlays from discretionary balances	97	99	82
4020	Outlays, gross (total)	257	232	395
	Offsets against gross budget authority and outlays:			
	Offsetting collections (collected) from:			
4030	Federal sources	-32	-40	-41
4033	Non-Federal sources	-40	-55	-60
4040	Offsets against gross budget authority and outlays (total)	-72	-95	-101
	Additional offsets against gross budget authority only:			
4050	Change in uncollected pymts, Fed sources, unexpired	-8		
4060	Additional offsets against budget authority only (total)	-8		
4070	Budget authority, net (discretionary)	190	159	397
4080	Outlays, net (discretionary)	185	137	294
4180	Budget authority, net (total)	190	159	397
4190	Outlays, net (total)	185	137	294

Office of the Secretary (OSE).—Directs and leads the management of the Department and provides policy guidance to line and staff organizations in the accomplishment of DOE's mission. In FY 2023, OSE will stand up a Central Climate Change Coordination team responsible to coordinate activities across DOE and other National Climate Task Force agencies.

Congressional and Intergovernmental Affairs (CI).—Responsible for DOE's liaison, communication, coordinating, directing, and promoting the Department's policies and legislative initiatives with Congress, State, territorial, Tribal and local government officials, and other Federal agencies.

Public Affairs (PA).—Responsible for directing and managing the Department's policies and initiatives with the public, news media, and other stakeholders. PA serves as the Department's chief spokesperson with the news media, shapes initiatives aimed at educating the press and public about DOE issues, builds and maintains the Energy.gov platform.

General Counsel (GC).—Responsible for providing legal services to all Department offices, and for determining the Department's authoritative position on any question of law with respect to all Department offices and programs, except for those belonging exclusively to the Federal Energy Regulatory Commission. GC is responsible for the coordination and clearance of proposed legislation affecting energy policy and Department activities. GC administers and monitors standards of conduct requirements, conducts patent program and intellectual property activities, and coordinates rulemaking actions of the Department with other Federal agencies.

Economic Impact and Diversity (ED).—Develops and executes DOE policies to implement applicable statutes and Executive Orders that impact diversity goals affecting equal employment opportunities, minority businesses, minority educational institutions, and historically underrepresented communities. ED identifies ways of ensuring that underrepresented populations are afforded an opportunity to participate fully in DOE programs. ED serves as central coordinator and departmental subject matter expert on equity and justice across the DOE complex and labs. Additionally, ED's Office of Civil Rights and Diversity will directly oversee Equal Employment Opportunity (EEO) complaint processing for the entire enterprise (except for NNSA), as well as directly overseeing the affirmative employment and diversity and inclusion functions for the entire complex (except for NNSA and the PMAs).

Chief Financial Officer (CFO).—Assures the effective management and financial integrity of DOE programs, activities, and resources by developing, implementing, and monitoring DOE-wide policies and systems in the areas of budget administration, finance and accounting, internal controls and financial policy, corporate financial systems, and strategic planning.

Chief Information Officer (CIO).—Provides advice and assistance to the Secretary and other senior managers to ensure that information technology is acquired and information resources are managed in a manner that complies with Administration policies and procedures and statutory requirements. In FY 2023 significant investments will continue to address Cyber vulnerabilities identified as a result of SolarWinds incident of December 2020, implementation of Executive Order 14028 focusing on zero trust architecture, enhanced logging, security licensing, universal encryption, and multifactor authentication.

Chief Human Capital Officer (HC).—Provides DOE leadership on the impact and use of policies, proposals, programs, partnership agreements and relationships related to all aspects of human capital management. HC seeks solutions that address workforce issues in the areas of recruiting, hiring, motivating, succession planning, competency development, training and learning, retention, and diversity.

Office of Policy (OP).—Serves as the principal policy office advising the Secretary of Energy and performing priority policy analyses across the Department's activities, focused on technology; infrastructure; state, local, and tribal activities; and energy jobs, and Arctic Energy coordination.

International Affairs (IA).—Advises Departmental leadership on strategic implementation of U.S. international energy policy and supports DOE's mission to ensure America's security and prosperity by addressing its energy, environmental, and climate challenges through innovative science and technology solutions. IA develops and leads the Department's bilateral and multilateral R&D cooperation, connecting DOE's program offices to advantageous international relationships. IA is the Department lead on fulfilling the Agency's requirements on the Committee of Foreign Investment in the U.S., including the expanded responsibilities derived from the Foreign Investment Risk Review Modernization Act of 2018. In FY 2023, IA will invest in the Net Zero World Initiative, DOE's signature contribution to the Presidents Build Back Better World Initiative, providing comprehensive technology and investment roadmaps to help key large emitters across the globe achieve net zero emissions by 2050.

Office of Small and Disadvantaged Business Utilization (OSDBU).—Responsible for maximizing contracting and subcontracting opportunities for small businesses interested in doing business with the Department. A primary responsibility of OSDBU is to work in partnership with Departmental program elements to achieve prime and subcontracting small business goals set forth by statute and the U.S. Small Business Administration.

Office of Management (MA).—Provides DOE with centralized direction and oversight for the full range of management, procurement and administrative services. MA is responsible for contract management policy development and oversight, acquisition and contract administration, and delivery of procurement services to DOE headquarters organizations. MA activities include the management of headquarters facilities, Department-wide implementation of Federal sustainability goals, purchase or lease of Zero Emission Vehicles (ZEVs) within agency-owned vehicle fleets or as part of a transition from GSA-leased gas-powered vehicles to GSA-leased ZEVs, and related charging infrastructure and program costs.

Project Management Oversight and Assessment (PM).—Provides DOE corporate oversight, managerial leadership and assistance in developing and implementing DOE-wide policies, procedures, programs, and management systems pertaining to project management, and manages the project management career development program for DOE's Federal Project Directors. PM also provides independent oversight of Environmental Management's portfolio of capital asset projects that are \$100 million or greater, including all activities involved with on-site cost, schedule, technical and management status reviews, as well as analyzing and reporting performance

DEPARTMENTAL ADMINISTRATION—Continued

progress of the projects. PM will also provide cost estimating and program evaluation.

Strategic Partnership Programs (SPP).—Covers the cost of work performed under orders placed with the Department by non-DOE entities that are precluded by law from making advance payments and certain revenue programs. Reimbursement of these costs is made through deposits of offsetting collections to this account.

Office of Technology Transitions (OTT).—Facilitates accessibility of DOE's capabilities and technologies for private sector commercialization. OTT serves a multi-disciplinary role, providing management of DOE's ongoing tech-to-market activities, including the statutory Technology Commercialization Fund. OTT coordinates DOE technology transition activities, including policy reform, data collection and analyses, industry stakeholder convenings, and amplification of DOE technology transfer success stories across the DOE—including programs, field offices, and the National Labs and Production Facilities—as well as engaging with other Federal agencies to improve awareness of the benefits of engaging the DOE research enterprise. In FY 2023, OTT is requested as a separate appropriation.

Artificial Intelligence Technology Office (AITO).—Coordinates Artificial Intelligence capabilities utilization and research throughout the Department.

Object Classification (in millions of dollars)

Identification code 089-0228-0-1-276	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	83	83	96
11.3 Other than full-time permanent	9	9	11
11.5 Other personnel compensation	2	2	3
11.9 Total personnel compensation	94	94	110
12.1 Civilian personnel benefits	30	30	34
21.0 Travel and transportation of persons	1	1	5
23.3 Communications, utilities, and miscellaneous charges	11	11	11
25.1 Advisory and assistance services	24	24	60
25.2 Other services from non-Federal sources	15	15	51
25.3 Other goods and services from Federal sources	34	34	107
25.4 Operation and maintenance of facilities	18	18	69
25.7 Other Contractual Services	1	1	1
31.0 Equipment	5	5	5
41.0 Grants, subsidies, and contributions	9	9	20
99.0 Direct obligations	242	242	473
99.0 Reimbursable obligations	6	6	6
99.9 Total new obligations, unexpired accounts	248	248	479

Employment Summary

Identification code 089-0228-0-1-276	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	623	623	733
2001 Reimbursable civilian full-time equivalent employment	7	7	7

OFFICE OF THE INSPECTOR GENERAL

For expenses necessary for the Office of the Inspector General in carrying out the provisions of the Inspector General Act of 1978, \$106,808,000, to remain available until September 30, 2024.

Note.—A full-year 2022 appropriation for this account was not enacted at the time the Budget was prepared; therefore, the Budget assumes this account is operating under the Continuing Appropriations Act, 2022 (Division A of Public Law 117-43, as amended). The amounts included for 2022 reflect the annualized level provided by the continuing resolution.

Program and Financing (in millions of dollars)

Identification code 089-0236-0-1-276	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0001 Office of the Inspector General	60	60	107
0002 Inspector General, Infrastructure Investment and Jobs Act	19	19	19
0799 Total direct obligations	60	79	107

0801 Reimbursable program activity	2		
0900 Total new obligations, unexpired accounts	62	79	107
Budgetary resources:			
Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	6	4	2
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation	58	58	107
1100 Appropriation, Infrastructure Investment and Jobs Act	19	19	19
1160 Appropriation, discretionary (total)	58	77	107
Advance appropriations, discretionary:			
1170 Advance appropriation			12
Spending authority from offsetting collections, discretionary:			
1700 Collected			2
1701 Change in uncollected payments, Federal sources	2		
1750 Spending auth from offsetting collections, disc (total)	2		2
1900 Budget authority (total)	60	77	121
1930 Total budgetary resources available	66	81	123
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	4	2	16
Change in obligated balance:			
Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	5	8	13
3010 New obligations, unexpired accounts	62	79	107
3020 Outlays (gross)	-59	-74	-114
3050 Unpaid obligations, end of year	8	13	6
Uncollected payments:			
3060 Uncollected pymts, Fed sources, brought forward, Oct 1		-2	-2
3070 Change in uncollected pymts, Fed sources, unexpired	-2		
3090 Uncollected pymts, Fed sources, end of year	-2	-2	-2
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	5	6	11
3200 Obligated balance, end of year	6	11	4
Budget authority and outlays, net:			
Discretionary:			
4000 Budget authority, gross	60	77	121
Outlays, gross:			
4010 Outlays from new discretionary authority	49	65	102
4011 Outlays from discretionary balances	10	9	12
4020 Outlays, gross (total)	59	74	114
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources			-2
Additional offsets against gross budget authority only:			
4050 Change in uncollected pymts, Fed sources, unexpired	-2		
4070 Budget authority, net (discretionary)	58	77	119
4080 Outlays, net (discretionary)	59	74	112
4180 Budget authority, net (total)	58	77	119
4190 Outlays, net (total)	59	74	112

The Office of Inspector General (OIG) provides Department-wide (including the National Nuclear Security Administration and the Federal Energy Regulatory Commission) audit, inspection, and investigative functions to identify and recommend corrections for management and administrative deficiencies, which create conditions for existing or potential instances of fraud, waste, abuse or violations of law. The audit function provides financial and performance audits of programs and operations. The inspection function provides independent inspection and analysis of the performance of programs and operations. The investigative function provides for the detection and investigation of improper and illegal activities involving programs, personnel, and operations. Through these efforts, the OIG identifies opportunities for cost savings and operational efficiency; identifies programs that are not meeting performance expectations; recovers monies to the Department and the Treasury as a result of civil and criminal prosecutions; and identifies ways to make Departmental programs safer and more secure.

Object Classification (in millions of dollars)

Identification code 089-0236-0-1-276	2021 actual	2022 est.	2023 est.
Direct obligations:			
Personnel compensation:			
11.1 Full-time permanent	33	33	33
11.3 Other than full-time permanent	1	1	1
11.5 Other personnel compensation	2	2	2
11.9 Total personnel compensation	36	36	36
12.1 Civilian personnel benefits	15	15	15
25.1 Advisory and assistance services	2	2	2
25.2 Other services from non-Federal sources	2	21	49
25.3 Other goods and services from Federal sources	4	4	4
31.0 Equipment	1	1	1
99.0 Direct obligations	60	79	107
99.0 Reimbursable obligations	2		
99.9 Total new obligations, unexpired accounts	62	79	107

Employment Summary

Identification code 089-0236-0-1-276	2021 actual	2022 est.	2023 est.
1001 Direct civilian full-time equivalent employment	287	287	287
2001 Reimbursable civilian full-time equivalent employment	1		

WORKING CAPITAL FUND**Program and Financing** (in millions of dollars)

Identification code 089-4563-0-4-276	2021 actual	2022 est.	2023 est.
Obligations by program activity:			
0802 Project management and career development program	2	2	2
0810 Supplies	1	1	2
0812 Copying Services	3	3	4
0813 Printing and graphics	4	4	5
0814 Building Occupancy (Rent, Operations & Maintenance)	140	140	117
0815 Corporate Business Systems	38	38	49
0816 Mail and Transportation Services	4	4	4
0817 Financial Statement Audits	9	9	12
0818 Procurement Management	9	9	16
0820 Telecommunication	30	30	38
0821 Overseas Presence	13	13	16
0822 Interagency Transfers	8	8	9
0823 Health Services	1	1	2
0825 Corporate Training Services	3	3	3
0826 A-123 / Internal Controls	1	1	2
0827 Pension Studies	1	1	1
0900 Total new obligations, unexpired accounts	267	267	282

Budgetary resources:

Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1	68	49	58
1021 Recoveries of prior year unpaid obligations	2		
1033 Recoveries of prior year paid obligations	1		
1070 Unobligated balance (total)	71	49	58
Budget authority:			
Spending authority from offsetting collections, discretionary:			
1700 Collected	245	276	276
1930 Total budgetary resources available	316	325	334
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year	49	58	52

Change in obligated balance:

Unpaid obligations:			
3000 Unpaid obligations, brought forward, Oct 1	139	138	2
3010 New obligations, unexpired accounts	267	267	282
3020 Outlays (gross)	-266	-403	-276
3040 Recoveries of prior year unpaid obligations, unexpired	-2		
3050 Unpaid obligations, end of year	138	2	8
Memorandum (non-add) entries:			
3100 Obligated balance, start of year	139	138	2
3200 Obligated balance, end of year	138	2	8

Budget authority and outlays, net:

Discretionary:			
4000 Budget authority, gross	245	276	276

Outlays, gross:			
4010 Outlays from new discretionary authority	106	265	265
4011 Outlays from discretionary balances	160	138	11
4020 Outlays, gross (total)	266	403	276
Offsets against gross budget authority and outlays:			
Offsetting collections (collected) from:			
4030 Federal sources	-246	-276	-276
Additional offsets against gross budget authority only:			
4053 Recoveries of prior year paid obligations, unexpired accounts	1		
4080 Outlays, net (discretionary)	20	127	
4180 Budget authority, net (total)			
4190 Outlays, net (total)	20	127	

The Department's Working Capital Fund (WCF) provides the following shared services: rent and building operations, telecommunications, cyber-security, automated office systems including the Standard Accounting and Reporting System, Strategic Integrated Procurement Enterprise System, payment processing, payroll and personnel processing, administrative services, training and health services, overseas representation, interagency transfers, procurement management, audits, and controls for financial reporting. The WCF assists the Department in improving operational efficiency.

Object Classification (in millions of dollars)

Identification code 089-4563-0-4-276	2021 actual	2022 est.	2023 est.
Reimbursable obligations:			
Personnel compensation:			
11.1 Full-time permanent	11	11	12
11.3 Other than full-time permanent	1	1	1
11.5 Other personnel compensation	1	1	1
11.8 Special personal services payments	2	2	2
11.9 Total personnel compensation	15	15	16
12.1 Civilian personnel benefits	5	5	5
21.0 Travel and transportation of persons	1	1	1
22.0 Transportation of things	1	1	1
23.1 Rental payments to GSA	69	69	73
23.3 Communications, utilities, and miscellaneous charges	21	21	23
24.0 Printing and reproduction	3	3	3
25.1 Advisory and assistance services	39	39	41
25.2 Other services from non-Federal sources	14	14	15
25.3 Other goods and services from Federal sources	51	51	54
25.4 Operation and maintenance of facilities	39	39	41
25.7 Operation and maintenance of equipment	1	1	1
26.0 Supplies and materials	1	1	1
31.0 Equipment	1	1	1
32.0 Land and structures	6	6	6
99.0 Reimbursable obligations	267	267	282
99.9 Total new obligations, unexpired accounts	267	267	282

Employment Summary

Identification code 089-4563-0-4-276	2021 actual	2022 est.	2023 est.
2001 Reimbursable civilian full-time equivalent employment	99	99	107

GENERAL FUND RECEIPT ACCOUNTS

(in millions of dollars)

	2021 actual	2022 est.	2023 est.
Offsetting receipts from the public:			
089-089400 Fees and Recoveries, Federal Energy Regulatory Commission	31	9	9
089-143500 General Fund Proprietary Interest Receipts, not Otherwise Classified	4	4	4
089-223400 Sale of Strategic Petroleum Reserve Oil	644	2,930	2,049
089-224500 Sale and Transmission of Electric Energy, Falcon Dam	1	1	1
089-224700 Sale and Transmission of Electric Energy, Southwestern Power Administration	85	7	6
089-224800 Sale and Transmission of Electric Energy, Southeastern Power Administration	151	177	176
089-224900 Sale of Power and Other Utilities, not Otherwise Classified		10	10

General Fund Receipt Accounts—Continued

	2021 actual	2022 est.	2023 est.
089-267910 Title 17 Innovative Technology Loan Guarantees, Negative Subsidies	45	10	7
089-279530 DOE ATM Direct Loans Downward Reestimate Account		11	
089-279730 DOE Loan Guarantees Downward Reestimate Account	160	372	
089-288900 Repayments on Miscellaneous Recoverable Costs, not Otherwise Classified	33	31	32
089-322000 All Other General Fund Proprietary Receipts Including Budget Clearing Accounts	35	18	14
General Fund Offsetting receipts from the public	1,189	3,580	2,308
Intragovernmental payments:			
089-388500 Undistributed Intragovernmental Payments and Receivables from Cancelled Accounts	-3		
General Fund Intragovernmental payments	-3		

GENERAL PROVISIONS—DEPARTMENT OF ENERGY

SEC. 301. (a) No appropriation, funds, or authority made available by this title for the Department of Energy shall be used to initiate or resume any program, project, or activity or to prepare or initiate Requests For Proposals or similar arrangements (including Requests for Quotations, Requests for Information, and Funding Opportunity Announcements) for a program, project, or activity if the program, project, or activity has not been funded by Congress.

(b)

(1) Unless the Secretary of Energy notifies the Committees on Appropriations of both Houses of Congress at least 3 full business days in advance, none of the funds made available in this title may be used to—

(A) make a grant allocation or discretionary grant award totaling \$1,000,000 or more;

(B) make a discretionary contract award or Other Transaction Agreement totaling \$1,000,000 or more, including a contract covered by the Federal Acquisition Regulation;

(C) issue a letter of intent to make an allocation, award, or Agreement in excess of the limits in subparagraph (A) or (B); or

(D) announce publicly the intention to make an allocation, award, or Agreement in excess of the limits in subparagraph (A) or (B).

(2) The Secretary of Energy shall submit to the Committees on Appropriations of both Houses of Congress within 15 days of the conclusion of each quarter a report detailing each grant allocation or discretionary grant award totaling less than \$1,000,000 provided during the previous quarter.

(3) The notification required by paragraph (1) and the report required by paragraph (2) shall include the recipient of the award, the amount of the award, the fiscal year for which the funds for the award were appropriated, the account and program, project, or activity from which the funds are being drawn, the title of the award, and a brief description of the activity for which the award is made.

(c) The Department of Energy may not, with respect to any program, project, or activity that uses budget authority made available in this title under the heading "Department of Energy—Energy Programs", enter into a multiyear contract, award a multiyear grant, or enter into a multiyear cooperative agreement unless—

(1) the contract, grant, or cooperative agreement is funded for the full period of performance as anticipated at the time of award; or

(2) the contract, grant, or cooperative agreement includes a clause conditioning the Federal Government's obligation on the availability of future year budget authority and the Secretary notifies the Committees on Appropriations of both Houses of Congress at least 3 days in advance.

(d) The amounts made available by this title may be reprogrammed for any program, project, or activity, and the Department shall notify the Committees on Appropriations of both Houses of Congress at least 30 days prior to the use of any proposed reprogramming that would cause any program, project, or activity funding level to increase or decrease by more than \$5,000,000 or 10 percent, whichever is less, during the time period covered by this Act.

(e) None of the funds provided in this title shall be available for obligation or expenditure through a reprogramming of funds that—

(1) creates, initiates, or eliminates a program, project, or activity;

(2) increases funds or personnel for any program, project, or activity for which funds are denied or restricted by this Act; or

(3) reduces funds that are directed to be used for a specific program, project, or activity by this Act.

(f)

(1) The Secretary of Energy may waive any requirement or restriction in this section that applies to the use of funds made available for the Department of Energy if compliance with such requirement or restriction would pose a substantial risk to human health, the environment, welfare, or national security.

(2) The Secretary of Energy shall notify the Committees on Appropriations of both Houses of Congress of any waiver under paragraph (1) as soon as practicable, but not later than 3 days after the date of the activity to which a requirement or restriction would otherwise have applied. Such notice shall include an explanation of the substantial risk under paragraph (1) that permitted such waiver.

(g) The unexpended balances of prior appropriations provided for activities in this Act may be available to the same appropriation accounts for such activities established pursuant to this title. Available balances may be merged with funds in the applicable established accounts and thereafter may be accounted for as one fund for the same time period as originally enacted.

SEC. 302. Funds appropriated by this or any other Act, or made available by the transfer of funds in this Act, for intelligence activities are deemed to be specifically authorized by the Congress for purposes of section 504 of the National Security Act of 1947 (50 U.S.C. 3094) during fiscal year 2023 until the enactment of the Intelligence Authorization Act for fiscal year 2023.

SEC. 303. None of the funds made available in this title shall be used for the construction of facilities classified as high-hazard nuclear facilities under 10 CFR Part 830 unless independent oversight is conducted by the Office of Enterprise Assessments to ensure the project is in compliance with nuclear safety requirements.

SEC. 304. None of the funds made available in this title may be used to approve critical decision-2 or critical decision-3 under Department of Energy Order 413.3B, or any successive departmental guidance, for construction projects where the total project cost exceeds \$100,000,000, until a separate independent cost estimate has been developed for the project for that critical decision.

SEC. 305. Notwithstanding section 161 of the Energy Policy and Conservation Act (42 U.S.C. 6241), upon a determination by the President in this fiscal year that a regional supply shortage of refined petroleum product of significant scope and duration exists, that a severe increase in the price of refined petroleum product will likely result from such shortage, and that a draw down and sale of refined petroleum product would assist directly and significantly in reducing the adverse impact of such shortage, the Secretary of Energy may draw down and sell refined petroleum product from the Strategic Petroleum Reserve. Proceeds from a sale under this section shall be deposited into the SPR Petroleum Account established in section 167 of the Energy Policy and Conservation Act (42 U.S.C. 6247), and such amounts shall be available for obligation, without fiscal year limitation, consistent with that section.

SEC. 306. Subparagraphs (B) and (C) of section 40401(a)(2) of Public Law 117-58, paragraph (3) of section 16512(r) of title 42, United States Code, and section (l) of section 17013 of title 42, United States Code, shall not apply for fiscal year 2023.

TITLE V—GENERAL PROVISIONS

(INCLUDING TRANSFER OF FUNDS)

SEC. 501. None of the funds appropriated by this Act may be used in any way, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913.

SEC. 502. None of the funds made available by this Act may be used in contravention of Executive Order No. 12898 of February 11, 1994 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations).

SEC. 503. (a) None of the funds made available in this Act may be used to maintain or establish a computer network unless such network blocks the viewing, downloading, and exchanging of pornography.

(b) Nothing in subsection (a) shall limit the use of funds necessary for any Federal, State, Tribal, or local law enforcement agency or any other entity carrying out criminal investigations, prosecution, or adjudication activities.

SEC. 504. Of the unavailable collections currently in the United States Enrichment Corporation Fund, \$405,421,000 shall be transferred to and merged with the Uranium Enrichment Decontamination and Decommissioning Fund and shall be available only to the extent provided in advance in appropriations Acts.

GENERAL PROVISIONS—DEPARTMENT OF ENERGY

[(INCLUDING TRANSFER OF FUNDS)]

[SEC. 301. Notwithstanding section 3304 of title 5, United States Code, and without regard to the provisions of sections 3309 through 3318 of such title 5, the Secretary of Energy, upon a determination that there is a severe shortage of candidates or a

critical hiring need for particular positions to carry out the Department of Energy activities funded under this title, may, from within the funds provided to the Department of Energy under this title, recruit and directly appoint highly qualified individuals into the competitive service: *Provided*, That such authority shall not apply to positions in the Excepted Service or the Senior Executive Service: *Provided further*, That any action authorized herein shall be consistent with the merit principles of section 2301 of such title 5, and the Department shall comply with the public notice requirements of section 3327 of such title 5: *Provided further*, That the authority under this section shall terminate on September 30, 2027: *Provided further*, That 180 days after the date of enactment of this Act, the Secretary of Energy shall submit to the House and Senate Committees on Appropriations an estimate of the number

of highly qualified individuals it expects to hire under the authority provided in this section.】

【SEC. 302. Up to one-tenth of one percent of each amount appropriated to the Department of Energy in this title may be transferred to "Departmental Administration" to be used for additional management and mission support for funds made available to the Department of Energy in this title in this Act.】

【SEC. 303. One-tenth of one percent of the amounts made available to the Department of Energy under each heading in this title in this Act in each of fiscal years 2022 through 2026 shall be transferred to the Office of the Inspector General of the Department of Energy to oversee the funds made available to the Department of Energy in this title in this Act.】 (*Infrastructure Investments and Jobs Appropriations Act.*)

