

# 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.
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<b>Obligations by program activity:</b>			
0010 Federal Salaries and Expenses .....	443	443	496

<b>Budgetary resources:</b>			
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

<b>Change in obligated balance:</b>			
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

<b>Budget authority and outlays, net:</b>			
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.
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<b>Direct obligations:</b>			
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.
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<b>Obligations by program activity:</b>			
0001 Naval Reactors (Direct) .....	1,583	1,600	2,091

<b>Budgetary resources:</b>			
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

<b>Change in obligated balance:</b>			
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

<b>Budget authority and outlays, net:</b>			
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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
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
<b>Budget authority:</b>			
Appropriations, discretionary:			
1100 Appropriation .....	15,345	15,345	16,486
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
<b>Memorandum (non-add) entries:</b>			
1941 Unexpired unobligated balance, end of year .....	894	122	.....
<b>Change in obligated balance:</b>			
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
<b>Uncollected payments:</b>			
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
<b>Memorandum (non-add) entries:</b>			
3100 Obligated balance, start of year .....	8,158	10,071	12,208
3200 Obligated balance, end of year .....	10,071	12,208	14,039
<b>Budget authority and outlays, net:</b>			
<b>Discretionary:</b>			
4000 Budget authority, gross .....	17,389	17,400	18,586
<b>Outlays, gross:</b>			
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
<b>Offsets against gross budget authority and outlays:</b>			
<b>Offsetting collections (collected) from:</b>			
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
<b>Additional offsets against gross budget authority only:</b>			
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.
<b>Direct obligations:</b>			
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

#### 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-*

*quisition 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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
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
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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—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 (M<sup>3</sup>).*—M<sup>3</sup> 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
<b>Budgetary resources:</b>				
	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
<b>Change in obligated balance:</b>				
	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
<b>Budget authority and outlays, net:</b>				
	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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
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:			
Federal sources .....	—1,793	—1,887	—1,928
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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
0001 Defense Nuclear Waste Disposal (Direct) .....	1	1	.....
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	2	1	.....
1930 Total budgetary resources available .....	2	1	.....
1941 Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	1	.....	.....
<b>Change in obligated balance:</b>			
3000 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
3100 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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
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
<b>Budget authority:</b>			
1100 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
	<b>Change in obligated balance:</b>			
	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
	<b>Budget authority and outlays, net:</b>			
	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	Additional 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 worldwide 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 anti-particle. 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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
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	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
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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.
<b>Direct obligations:</b>			
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

Identification code 089–0224–0–1–999	2021 actual	2022 est.	2023 est.
<b>Budgetary resources:</b>			
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. **I** (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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
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:			
4030	Offsetting collections (collected) from:			
	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.
<b>Direct obligations:</b>			
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. **I** (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.
<b>Obligations by program activity:</b>			
0011 Transmission reliability and resiliency .....			
0012 Resilient distribution systems .....	47	47	37
0014 Energy Storage .....	47	47	50
0015 Transformer Resilience and Advanced Components .....	80	80	81
0017 Cyber Resilient & Security Utility Communication Network .....	7	7	23
0018 Energy Delivery Grid Operations Technology .....	.....	.....	20
0019 Applied Grid Transformation Solutions .....	.....	.....	39
0030 Transmission permitting and technical assistance .....	8	8	30
0040 Program Direction .....	18	18	17
0041 Electricity, Infrastructure Investment and Jobs Act .....	751	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
<b>Budgetary resources:</b>			
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
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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 (PTPA).*—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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
0001 Interregional & Offshore Transmission Planning .....			
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
<b>Budgetary resources:</b>			
Budget authority:			
Appropriations, discretionary:			
1100 Appropriation .....			90
1930 Total budgetary resources available .....			90
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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.
<b>Obligations by program activity:</b>			
0010 Loans .....			
0020 Capacity contracts .....			200
0030 Public private partnerships .....			100
0900 Total new obligations, unexpired accounts .....			500
<b>Budgetary resources:</b>			
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
Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....			2,000
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3010 New obligations, unexpired accounts .....			500
3020 Outlays (gross) .....			-500
<b>Budget authority and outlays, net:</b>			
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, \$50,000,000 shall be to carry out activities under the Energy Sector Operational Support for Cyberresilience Program, as authorized in section 40125(c) of division D of this Act: *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. **I (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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
1021 Unobligated balance brought forward, Oct 1 .....	22	64	182
1070 Unobligated balance (total) .....	30	64	182
Budget authority:			
1100 Appropriations, discretionary:			
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
<b>Change in obligated balance:</b>			
3000 Unpaid obligations:			
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
<b>Budget authority and outlays, net:</b>			
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. **I** (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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
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
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000 Budget authority, gross .....	2,950	11,242	6,420
Outlays:			
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:		
Federal sources .....	-72	-81
Non-Federal sources .....	-87	-100
4040 Offsets against gross budget authority and outlays (total) ....	-159	-181
Additional offsets against gross budget authority only:		
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
4080 Outlays, net (discretionary) .....	2,198	2,713
4180 Budget authority, net (total) .....	2,782	11,061
4190 Outlays, net (total) .....	2,198	2,713

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
23.3 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.
<b>Obligations by program activity:</b>			
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 .....	.....
1930 Total budgetary resources available .....	27

## Change in obligated balance:

Unpaid obligations:	
3010 New obligations, unexpired accounts .....	.....
3020 Outlays (gross) .....	.....
3050 Unpaid obligations, end of year .....	.....
Memorandum (non-add) entries:	
3200 Obligated balance, end of year .....	13

## Budget authority and outlays, net:

Discretionary:	
4000 Budget authority, gross .....	.....
Outlays, gross:	
4010 Outlays from new discretionary authority .....	.....
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. DOEs 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.



## 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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
0010 Clean Energy Manufacturing Programs .....	.....	.....	196
0020 Program Direction .....	.....	.....	4
0900 Total new obligations, unexpired accounts .....	.....	.....	200
<b>Budgetary resources:</b>			
Budget authority:			
Appropriations, mandatory:			
1200 Appropriation .....	.....	.....	200
1930 Total budgetary resources available .....	.....	.....	200
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
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:			
4100 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

## 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.
<b>Obligations by program activity:</b>			
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	
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	.....	4,451	
1000 Budget authority:			
1100 Appropriations, discretionary:			
1100 Appropriation .....	5,123	214	
1170 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	
1941 Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	4,451	6,741	
<b>Change in obligated balance:</b>			
3000 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	
3100 Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	.....	268	
3200 Obligated balance, end of year .....	268	1,511	
<b>Budget authority and outlays, net:</b>			
4000 Discretionary:			
4000 Budget authority, gross .....	5,123	4,637	
4010 Outlays:			
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.
<b>Direct obligations:</b>			
11.1 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.
<b>Obligations by program activity:</b>			
0010 Direct program activity .....	33	32	122
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	21	10	.....
1000 Budget authority:			
1100 Appropriations, discretionary:			
1100 Appropriation .....	22	22	150
1930 Total budgetary resources available .....	43	32	130
1941 Memorandum (non-add) entries:			
1941 Unexpired unobligated balance, end of year .....	10	.....	28
<b>Change in obligated balance:</b>			
3000 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
3100 Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	11	33	46
3200 Obligated balance, end of year .....	33	46	58
<b>Budget authority and outlays, net:</b>			
4000 Discretionary:			
4000 Budget authority, gross .....	22	22	150
4000 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

#### 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-*

*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 6939 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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
1000 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:			
1100 Appropriations, discretionary:			
1100 Appropriation .....	319	319	200
1700 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
<b>Change in obligated balance:</b>			
3000 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
<b>Budget authority and outlays, net:</b>			
4000 Discretionary:			
4000 Budget authority, gross .....	360	354	358
4000 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:			
4030 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—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.
<b>Obligations by program activity:</b>			
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	.....	40
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 CO <sub>2</sub> ) .....	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
<b>Budgetary resources:</b>			
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 [IUA] .....	.....	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
<b>Change in obligated balance:</b>			
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
3100	Memorandum (non-add) entries:			
3200	Obligated balance, start of year .....	958	1,121	266
	Obligated balance, end of year .....	1,121	266	92

**Budget authority and outlays, net:**

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 (CO<sub>2</sub>) removal (CDR) to reduce atmospheric and legacy emissions of CO<sub>2</sub>, and technologies that convert and durably store CO<sub>2</sub> 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.
<b>Direct obligations:</b>			
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.
<b>Budgetary resources:</b>				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1 .....	.....	3	3
Budget authority:				
1800	Spending authority from offsetting collections, mandatory: Collected .....	3 .....	.....	.....
1930	Total budgetary resources available .....	3	3	3
Memorandum (non-add) entries:				
1941	Unexpired unobligated balance, end of year .....	3	3	3
<b>Budget authority and outlays, net:</b>				
Mandatory:				
4090	Budget authority, gross .....	3 .....	.....	.....
Offsets against gross budget authority and outlays:				
4120	Offsetting collections (collected) from: 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.
<b>Obligations by program activity:</b>				
0001 Production and Operations .....				
0001	Production and Operations .....	13	14	13
0799 Total direct obligations .....				
0799	Total direct obligations .....	13	14	13
0900 Total new obligations, unexpired accounts (object class 25.4) .....				
0900	Total new obligations, unexpired accounts (object class 25.4) .....	13	14	13
<b>Budgetary resources:</b>				
Unobligated balance:				
1000	Unobligated balance brought forward, Oct 1 .....	4	4	4
Budget authority:				
1100	Appropriations, discretionary: 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:

3000	Unpaid obligations:	.....	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
3100	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:

4000	Discretionary:				
4000	Budget authority, gross .....	.....	13	14	13
4010	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

## 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.
<b>Obligations by program activity:</b>				
0001 SPR Management .....				
0001	SPR Management .....	.....	22	20
0002	SPR Storage Facilities Development .....	.....	182	168
0003	Emergency Appropriation .....	.....	43	.....
0004	Northeast Gasoline Supply Reserve .....	.....	.....	22
0900	Total new obligations, unexpired accounts .....	.....	204	231
0900	Total new obligations, unexpired accounts .....	.....	214	.....

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

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

<b>Budget authority and outlays, net:</b>			
Discretionary:			
4000	Budget authority, gross .....	188	231
Outlays, gross:			
4010	Outlays from new discretionary authority .....	65	125
4011	Outlays from discretionary balances .....	158	140
4020	Outlays, gross (total) .....	223	265
4180	Budget authority, net (total) .....	188	231
4190	Outlays, net (total) .....	223	265

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.
<b>Direct obligations:</b>			
11.1	Personnel compensation: Full-time permanent .....	12	12
12.1	Civilian personnel benefits .....	4	4
23.1	Rental payments to GSA .....	1	1
23.3	Communications, utilities, and miscellaneous charges .....	3	3
25.1	Advisory and assistance services .....	1	1
25.2	Other services from non-Federal sources .....	33	33
25.4	Operation and maintenance of facilities .....	150	134
32.0	Land and structures .....	.....	43
99.0	Direct obligations .....	204	231
99.9	Total new obligations, unexpired accounts .....	204	231

#### Employment Summary

Identification code 089-0218-0-1-274	2021 actual	2022 est.	2023 est.
1001	Direct civilian full-time equivalent employment .....	110	110
2001	Reimbursable civilian full-time equivalent employment .....	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.
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<b>Obligations by program activity:</b>	3	6	8
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<b>Budgetary resources:</b>	9	9	4
1000	Unobligated balance brought forward, Oct 1 .....	.....	.....
<b>Budget authority:</b>			
1100	Appropriation .....	1	1
Spending authority from offsetting collections, discretionary:			
1700	Collected .....	2	.....
1900	Budget authority (total) .....	3	1
1930	Total budgetary resources available .....	12	10
Memorandum (non-add) entries:			
1941	Unexpired unobligated balance, end of year .....	9	4

<b>Change in obligated balance:</b>	25	22	7
3000	Unpaid obligations, brought forward, Oct 1 .....	.....	.....
3010	New obligations, unexpired accounts .....	3	6
3020	Outlays (gross) .....	-6	-21
<b>Unpaid obligations:</b>			
3050	Unpaid obligations, end of year .....	22	7
Memorandum (non-add) entries:			
3100	Obligated balance, start of year .....	25	22
3200	Obligated balance, end of year .....	22	7

<b>Budget authority and outlays, net:</b>	3	1	8
4000	Budget authority, gross .....	.....	.....
Outlays, gross:			
4010	Outlays from new discretionary authority .....	.....	.....
4011	Outlays from discretionary balances .....	6	21
4020	Outlays, gross (total) .....	6	21
Offsets against gross budget authority and outlays:			
4033	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
4190	Outlays, net (total) .....	4	21

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.
<b>Direct obligations:</b>			
23.3	Communications, utilities, and miscellaneous charges .....	1	.....
25.2	Other services from non-Federal sources .....	2	6
99.9	Total new obligations, unexpired accounts .....	3	6

## 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.
<b>Obligations by program activity:</b>			
0010 Energy security and infrastructure modernization .....	354	109	.....
0900 Total new obligations, unexpired accounts (object class 25.4) .....	354	109	.....
<b>Budgetary resources:</b>			
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	.....	.....
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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.
<b>Obligations by program activity:</b>			
0001     Obligations by Program Activity .....	127	127	144
<b>Budgetary resources:</b>			
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
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
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	.....	.....
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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:			
4034 Offsetting collections (collected) from:			
4180 Budget authority, net (total) .....	-404	-404	-508
4190 Outlays, net (total) .....	5	45	19
<b>Memorandum (non-add) entries:</b>			
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.
<b>Reimbursable obligations:</b>			
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
<b>99.9 Total new obligations, unexpired accounts .....</b>	<b>439</b>	<b>427</b>	<b>508</b>

## 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.
<b>Budgetary resources:</b>			
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.
<b>Budgetary resources:</b>			
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

Identification code 089-5105-0-2-806	2021 actual	2022 est.	2023 est.
<b>0100 Balance, start of year .....</b>			
Receipts:			
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:			
2101 Payments to States under Federal Power Act .....	-6	-5	-6
<b>5099 Balance, end of year .....</b>	<b>.....</b>	<b>.....</b>	<b>.....</b>

## Program and Financing (in millions of dollars)

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

<b>Budgetary resources:</b>			
Budget authority:			
Appropriations, mandatory:			
1201 Appropriation (special or trust fund) .....	6	5	6
1930 Total budgetary resources available .....	6	5	6

<b>Change in obligated balance:</b>			
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	.....	.....

  

<b>Budget authority and outlays, net:</b>			
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.
<b>Obligations by program activity:</b>			
0001 NEHHOR .....	6	7	7
0900 Total new obligations, unexpired accounts (object class 25.2) .....	6	7	7
<b>Budgetary resources:</b>			
1000 Unobligated balance: Unobligated balance brought forward, Oct 1 .....	5	6	6
1000 Budget authority: Appropriations, discretionary: Appropriation .....	7	7	7
1100 1930 Total budgetary resources available .....	12	13	13
1941 Memorandum (non-add) entries: Unexpired unobligated balance, end of year .....	6	6	6
<b>Change in obligated balance:</b>			
3000 Unpaid obligations: Unpaid obligations, brought forward, Oct 1 .....	4	3	1
3010 New obligations, unexpired accounts .....	6	7	7
3020 Outlays (gross) .....	-7	-9	-7
3050 3100 3200 Unpaid obligations, end of year .....	3	1	1
3050 Memorandum (non-add) entries: Obligated balance, start of year .....	4	3	1
3200 Obligated balance, end of year .....	3	1	1
<b>Budget authority and outlays, net:</b>			
4000 Discretionary: Budget authority, gross .....	7	7	7
4010 Outlays, gross: Outlays from new discretionary authority .....	1	6	6
4011 Outlays from discretionary balances .....	6	3	1
4020 4180 4190 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
<b>Receipts:</b>			
1130 Current law: 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:	2021	2022	2023
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.
<b>Obligations by program activity:</b>			
0001 Interim Storage and Nuclear Waste Fund Oversight .....	21	28	10

## Budgetary resources:

Unobligated balance:	2021	2022	2023
1000 Unobligated balance brought forward, Oct 1 .....	3	10	10
<b>Budget authority:</b>			
1100 Appropriations, discretionary: 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
1941 Memorandum (non-add) entries: Unexpired unobligated balance, end of year .....	10	10	10

## Change in obligated balance:

Unpaid obligations:	2021	2022	2023
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
3100 Memorandum (non-add) entries: Obligated balance, start of year .....	4	16	20
3200 Obligated balance, end of year .....	16	20	13

## Budget authority and outlays, net:

Discretionary:	2021	2022	2023
4000 Budget authority, gross .....	28	28	10
4010 Outlays, gross: 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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
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:			
1711 Spending authority from offsetting collections transferred 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
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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:				
Non-Federal sources .....	-1	.....	.....	.....
Additional offsets against gross budget authority only:				
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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
0801 Isotope Production and Distribution Reimbursable program .....	133	126	126
<b>Budgetary resources:</b>			
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:

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
3100	Obligated balance, start of year .....	112	132	136
3200	Obligated balance, end of year .....	132	136	118

## Budget authority and outlays, net:

4000	Budget authority, gross .....	117	126	126
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:			
Federal sources .....	-78	-56	-56
Non-Federal sources .....	-39	-70	-70
Offsets against gross budget authority and outlays (total) ....	-117	-126	-126
Outlays, net (discretionary) .....	-4	-4	18
Budget authority, net (total) .....			
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:			
Operation and maintenance of facilities .....	117	110	110
Equipment .....	7	7	7
Grants, subsidies, and contributions .....	9	9	9
Reimbursable obligations .....	133	126	126
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.
<b>Obligations by program activity:</b>			
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

<b>Budgetary resources:</b>			
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 Unexpended unobligated balance, end of year .....	2,429	2,188	237

<b>Change in obligated balance:</b>			
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

<b>Budget authority and outlays, net:</b>			
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 .....			
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 .....			
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
0715	Interest paid to FFB .....	18	13
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
1422	Borrowing authority applied to repay debt .....	-429	.....
1440	Borrowing authority, mandatory (total) .....	7	4,945
Spending authority from offsetting collections, mandatory:			
1800	Collected .....	201	1,025
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
1900	Budget authority (total) .....	32	5,125
1930	Total budgetary resources available .....	32	5,125
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
3020	Outlays (gross) .....	-32	-1,035
3050	Unpaid obligations, end of year .....	.....	3,896
Uncollected payments:			
3060	Uncollected pymts, Fed sources, brought forward, Oct 1 .....	.....	-189
3070	Change in uncollected pymts, Fed sources, unexpired .....	.....	-189
3090	Uncollected pymts, Fed sources, end of year .....	.....	-189
Memorandum (non-add) entries:			
3100	Obligated balance, start of year .....	.....	3,707
3200	Obligated balance, end of year .....	.....	11,912

## Financing authority and disbursements, net:

Mandatory:			
4090	Budget authority, gross .....	32	5,125
	Financing disbursements:	.....	13,705
4110	Outlays, gross (total) .....	32	1,035
	Offsets against gross financing authority and disbursements:	.....	4,230
	Offsetting collections (collected) from:	.....	.....
4120	Payment from program account .....	-14	-47
4122	Interest on uninvested funds .....	-7	-13
4123	Non-Federal sources (interest) .....	-180	-26
4123	Non-Federal sources (principal) .....	.....	-3
4123	Other Income - Fees .....	.....	-26
4130	Offsets against gross budget authority and outlays (total) .....	-201	-1,025
	Additional offsets against financing authority only (total):	.....	-264
4140	Change in uncollected pymts, Fed sources, unexpired .....	.....	-189
4140	Change in uncollected pymts, Fed sources, unexpired .....	.....	-432
4160	Budget authority, net (mandatory) .....	-169	3,911
4170	Outlays, net (mandatory) .....	-169	10
4180	Budget authority, net (total) .....	-169	3,911
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 .....

1143 Unobligated limitation carried forward (P.L. 110-329) (-) .....

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	4,192
1251	Repayments: Repayments and prepayments .....	-148	-947	-3
1290	Outstanding, end of year .....	.....	1,101	1,149
			5,338	

## Balance Sheet (in millions of dollars)

Identification code 089-4579-0-3-272	2020 actual	2021 actual	
ASSETS:			
1101	Fund balances with Treasury .....	20	.....
1106	Investments in U.S. securities:	.....	34
1106	Receivables, net .....	.....	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:			
2101	Federal liabilities:	.....	.....
2103	Accounts payable .....	.....	1,208
2105	Debt .....	20	1,018
2105	Other .....	.....	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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
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
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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
<b>Memorandum (non-add) entries:</b>			
5090 Unexpired unavailable balance, SOY: Offsetting collections .....			21
5092 Unexpired unavailable balance, EOY: Offsetting collections .....		21	3
<b>Summary of Loan Levels, Subsidy Budget Authority and Outlays by Program</b> (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
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.
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## 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
4121 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.
<b>Obligations by program activity:</b>			
Credit program obligations:			
0709      Administrative expenses .....	2	10	
<b>Budgetary resources:</b>			
Unobligated balance:			
1000      Unobligated balance brought forward, Oct 1 .....	1		
Budget authority:			
1100      Appropriations, discretionary:	3		
1170      Advance appropriations, discretionary:		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	
<b>Change in obligated balance:</b>			
Unpaid obligations:			
3010      New obligations, unexpired accounts .....	2	10	
3020      Outlays (gross) .....	-2	-10	
<b>Budget authority and outlays, net:</b>			
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.
<b>Obligations by program activity:</b>			
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:			
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.
<b>Obligations by program activity:</b>			
0711 Credit program obligations:			
0711 Default claim payments on principal .....	.....	1	4
<b>Budgetary resources:</b>			
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
<b>Change in obligated balance:</b>			
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
<b>Financing authority and disbursements, net:</b>			
Mandatory:			
4090 Budget authority, gross .....	.....	4	3
Financing disbursements:			
4110 Outlays, gross (total) .....	.....	1	4
Offsets against gross financing authority and disbursements:			
4120 Offsetting collections (collected) from:			
Program Fund Collections .....	.....	-1	-2
4140 Additional offsets against financing authority only (total):			
Change in uncollected pymts, Fed sources, unexpired .....	.....	-3	-1
4170 Outlays, net (mandatory) .....	.....	.....	2
4180 Budget authority, net (total) .....	.....	.....	.....

4190 Outlays, net (total) .....

2

## 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.
<b>Obligations by program activity:</b>			
0711 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
<b>Budgetary resources:</b>			
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
<b>Change in obligated balance:</b>			
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
3090 Uncollected pymts, Fed sources, end of year .....	-9	-9	-9
Memorandum (non-add) entries:			
3100 Obligated balance, start of year .....	.....	-9	-8
3200 Obligated balance, end of year .....	-8	-8	-8
<b>Financing authority and disbursements, net:</b>			
Mandatory:			
4090 Budget authority, gross .....	.....	4	3
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	-3
4123 Principal payments .....	.....	.....	-12
4123 Interest Payments .....	.....	.....	-3
4130 Offsets against gross budget authority and outlays (total) ....	-4	-3	-18
4170 Outlays, net (mandatory) .....	63	48	-9
4180 Budget authority, net (total) .....	63	48	-9
4190 Outlays, net (total) .....	63	48	-9

**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
<b>ASSETS:</b>		
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
<b>LIABILITIES:</b>		
Federal liabilities:		
2101 Accounts payable .....	.....	.....
2105 Other .....	67	23
2204 Non-Federal liabilities: Liabilities for loan guarantees .....	117	98
2999 Total liabilities .....	184	121
<b>NET POSITION:</b>		
3300 Cumulative results of operations .....	.....	.....
4999 Total liabilities and net position .....	184	121

**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

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.
<b>Obligations by program activity:</b>			
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:			
1700 Spending authority from offsetting collections, discretionary:			
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) .....	-12	.....	2
4190 Outlays, net (total) .....	-12	.....	2

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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
Unobligated balance brought forward, Oct 1 .....	109	128	132
Budget authority:			
Appropriations, discretionary:			
Appropriation .....	10	10	11
Spending authority from offsetting collections, discretionary:			
Collected .....	82	159	165
Budget authority (total) .....	92	169	176
Total budgetary resources available .....	201	297	308
Memorandum (non-add) entries:			
Unexpired unobligated balance, end of year .....	128	132	132
<b>Change in obligated balance:</b>			
3000 Unpaid obligations:			
Unpaid obligations, brought forward, Oct 1 .....	151	150	152
New obligations, unexpired accounts .....	73	165	176
Outlays (gross) .....	-74	-163	-223
3050 Unpaid obligations, end of year .....	150	152	105
Memorandum (non-add) entries:			
Obligated balance, start of year .....	151	150	152
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
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 <sup>1</sup>	2023 Estimate <sup>1</sup>
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

<sup>1</sup>The 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 offsetting 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)

**I**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. **I** (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.
<b>Obligations by program activity:</b>			
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
<b>Budgetary resources:</b>			
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
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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
<b>Memorandum (non-add) entries:</b>			
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 ADMINISTRATION<sup>1</sup>

	(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	

<sup>1</sup>Excludes 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 .....			
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.
<b>Change in obligated balance:</b>			
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
<b>Budget authority and outlays, net:</b>			
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 .....			
99.0 Direct 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.
<b>Budgetary resources:</b>			
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) .....	.....	.....	.....
<b>Memorandum (non-add) entries:</b>			
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.
<b>Obligations by program activity:</b>			
0001 Annual Expenses .....			
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
<b>Budgetary resources:</b>				
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
<b>Change in obligated balance:</b>				
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
<b>Budget authority and outlays, net:</b>				
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.
<b>Obligations by program activity:</b>			
0801 Program direction .....	73	74	79
0802 Equipment, Contracts and Related Expenses .....	193	163	179
0900 Total new obligations, unexpired accounts .....	266	237	258

<b>Budgetary resources:</b>				
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
<b>Change in obligated balance:</b>				
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
<b>Budget authority and outlays, net:</b>				
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 Seedskadee 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.

*Seedskadee 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
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	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:			
Power business line .....			
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) .....			
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 .....			
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 transmission 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
<b>ASSETS:</b>		
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 .....	.....	.....
<b>Other Federal assets:</b>		
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
<b>LIABILITIES:</b>		
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
<b>NET POSITION:</b>		
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.
<b>Reimbursable obligations:</b>			
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.
<b>Obligations by program activity:</b>			
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
<b>Budget authority:</b>			
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
<b>Memorandum (non-add) entries:</b>			
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
<b>Budget authority and outlays, net:</b>				
	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.
<b>Direct obligations:</b>			
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.
<b>Obligations by program activity:</b>			
0001 Office of the Inspector General .....	60	60	107
0002 Inspector General, Infrastructure Investment and Jobs Act .....		19	.....
0799 Total direct obligations .....	60	79	107

0801 Reimbursable program activity .....	2	.....	.....
0900 Total new obligations, unexpired accounts .....	62	79	107
<b>Budgetary resources:</b>			
1000 Unobligated balance:			
1000 Unobligated balance brought forward, Oct 1 .....	6	4	2
1000 Budget authority:			
1100 Appropriations, discretionary:			
1100 Appropriation .....	58	58	107
1100 Appropriation, Infrastructure Investment and Jobs Act .....		19	.....
1160 Appropriation, discretionary (total) .....	58	77	107
1170 Advance appropriations, discretionary:			
1170 Advance appropriation .....			12
1700 Spending authority from offsetting collections, discretionary:			
1701 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
<b>Memorandum (non-add) entries:</b>			
1941 Unexpired unobligated balance, end of year .....	4	2	16
<b>Change in obligated balance:</b>			
3000 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
<b>Uncollected payments:</b>			
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
<b>Memorandum (non-add) entries:</b>			
3100 Obligated balance, start of year .....	5	6	11
3200 Obligated balance, end of year .....	6	11	4
<b>Budget authority and outlays, net:</b>			
4000 Budget authority, gross .....	60	77	121
<b>Outlays, gross:</b>			
4010 Outlays from new discretionary authority .....	49	65	102
4011 Outlays from discretionary balances .....	10	9	12
4020 Outlays, gross (total) .....	59	74	114
<b>Offsets against gross budget authority and outlays:</b>			
4030 Offsetting collections (collected) from:			
4030 Federal sources .....			-2
<b>Additional offsets against gross budget authority only:</b>			
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, cybersecurity, 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 .....			
089-143500 General Fund Proprietary Interest Receipts, not Otherwise Classified .....	31	9	9
089-223400 Sale of Strategic Petroleum Reserve Oil .....	4	4	4
089-224500 Sale and Transmission of Electric Energy, Falcon Dam .....	644	2,930	2,049
089-224700 Sale and Transmission of Electric Energy, Southwestern Power Administration .....	1	1	1
089-224800 Sale and Transmission of Electric Energy, Southeastern Power Administration .....	85	7	6
089-224900 Sale of Power and Other Utilities, not Otherwise Classified .....	151	177	176
	.....	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 ATVM 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.*)

