

Mercury Storage.—The recommendation includes legislative language to allow the Department to spend fees collected for the purpose of mercury storage.

URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND

Appropriation, 2020	\$881,000,000
Budget estimate, 2021	806,244,000
Recommended, 2021	821,583,000
Comparison:	
Appropriation, 2020	– 59,417,000
Budget estimate, 2021	+15,339,000

The Uranium Enrichment Decontamination and Decommissioning Fund was established by the Energy Policy Act of 1992 to fund the cleanup of gaseous diffusion plants at Portsmouth, Ohio; Paducah, Kentucky; and the East Tennessee Technology Park in Oak Ridge, Tennessee.

Portsmouth.—The Committee continues to reject any attempt to barter, transfer, or sell uranium to pay for Portsmouth cleanup costs.

SCIENCE

Appropriation, 2020	\$7,000,000,000
Budget estimate, 2021	5,837,806,000
Recommended, 2021	7,050,000,000
Comparison:	
Appropriation, 2020	+50,000,000
Budget estimate, 2021	+1,212,194,000

The Office of Science funds basic science research across national laboratories, universities, and other research institutions in support of American innovation and the Department’s energy-focused missions. Through research in physics, biology, chemistry, and other science disciplines, these activities expand scientific understanding and secure the nation’s leadership in energy innovation. This basic science research is crucial to enabling the nation to continue developing transformational energy technologies and to position itself to seize economic opportunities in the global energy markets of the future. The Office of Science is the nation’s largest supporter of basic research in the physical sciences.

The Office of Science includes the following programs: Advanced Scientific Computing Research, Basic Energy Sciences, Biological and Environmental Research, Fusion Energy Sciences, High Energy Physics, Nuclear Physics, Workforce Development for Teachers and Scientists, Science Laboratories Infrastructure, Safeguards and Security, and Program Direction. The Committee has placed a high priority on funding these activities in fiscal year 2021, given the private sector is not likely to fund research whose findings either have high non-commercial value or are not likely to be commercialized in the near or medium term. This work is vital to sustaining the scientific leadership of the United States and can provide the underpinnings for valuable intellectual property in the coming decades.

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

The Department is reminded that section 301 of this Act prohibits the use of any appropriation, funds, or authority to initiate or resume any program, project, or activity or to prepare or initiate Requests for Proposals for a program, project, or activity if the program, project, or activity has not been funded by Congress. The Department is directed to provide to the Committee a plan that details all programs, projects, and activities to be funded in the Office of Science that are not directed by this recommendation or explicitly included in the fiscal year 2021 budget request. The plan shall be provided not later than 90 days after enactment of this Act and prior to any funds being obligated for those programs, projects, or activities. No funds may be obligated for programs, projects, or activities in the plan prior to approval by the Committee.

Artificial Intelligence and Machine Learning.—The Committee appreciates the Department’s continued focus on the development of foundational Artificial Intelligence and Machine Learning capabilities. The recommendation includes up to \$125,000,000 for Artificial Intelligence and Machine Learning, and the Committee directs the Department to apply those tools to the Department’s mission.

Biomedical Sciences.—Collaborative research efforts between the Department and the National Institutes of Health (NIH) are developing breakthroughs in health research, including drug discovery, brain research, diagnostic technologies, and other biomedical research areas. The Department is encouraged to expand its relationships with NIH in order to work together more strategically to leverage the Department’s research capabilities, including instrumentation, materials, modeling and simulation, and data science. The facilities and equipment funded in this Act support applications in many areas of biomedical research. Better coordination between the Department and NIH could be instrumental in assisting to develop the nation’s health, security, and technologies with novel biomedical application. The fiscal year 2020 Act directed the Department to provide a plan that responds to the findings and recommendations in the Final Report of the Secretary of Energy Advisory Board Task Force on Biomedical Sciences. The Committee is still awaiting this plan and directs the Department to provide the plan not later than 30 days after enactment of this Act. The recommendation includes not less than \$1,000,000 for collaboration with NIH within the Department’s data and computational mission space.

Exascale Computing Initiative.—The recommendation includes \$474,945,000 for exascale activities.

Quantum Information Sciences.—The Committee supports the Office of Science’s coordinated and focused research program in quantum information science and technology. This emerging field of science promises to yield revolutionary new approaches to computing, sensing, and communication. The recommendation provides \$235,000,000 for quantum information science, including not less than \$120,000,000 for research and not less than \$100,000,000 for up to five National Quantum Information Science Research Centers.

Reorganization.—The Committee acknowledges the Office of Science’s realignment of the Office of Accelerator R&D and Production and the Office of Isotope R&D and Production. The Depart-

ment is directed to submit its fiscal year 2022 budget request using this new organizational structure. The Department is directed to coordinate across Advanced Scientific Computing Research, Basic Energy Sciences, Fusion Energy Sciences, High Energy Physics, and Nuclear Physics for its Strategic Accelerator Technology Initiative to support innovation in accelerator technologies, including magnets, optics, detectors, and sensors.

Strategic Partnership Projects.—The Committee appreciates that the national laboratories are available to conduct work for other federal agencies on a reimbursable basis given the highly specialized and unique technical expertise and equipment available at the national laboratories, and strongly supports this work. However, the Committee is concerned about the Department's implementation and oversight of Strategic Partnership Projects, particularly for projects that have not received reimbursement payments from other agencies. The Department is directed to submit to the Committee not later than 30 days after enactment of this Act a report that inventories all Strategic Partnership Projects that have not received payment sufficient to cover completed or anticipated work being performed. The Department is directed to ensure that all Strategic Partnership Projects include requirements for receiving full funding prior to beginning work or an advance payment sufficient to cover anticipated cost of the work that will be performed for the first 30 days of the Strategic Partnership Project followed by advanced payments for 30 day increments thereafter. If the agreement must deviate from these guidelines, then the Department shall notify the Committee not less than 10 business days prior to the change.

In addition, the Coronavirus Aid, Relief, and Economic Security (CARES) Act (Public Law 116–136) included \$99,500,000 for the Office of Science to prevent, prepare for, and respond to coronavirus.

ADVANCED SCIENTIFIC COMPUTING RESEARCH

The Advanced Scientific Computing Research program develops and hosts some of the world's fastest computing and network capabilities to enable science and energy modeling, simulation, and research.

High Performance Computing and Network Facilities.—In addition to the long-term exascale initiative, the Committee supports continued upgrade and operation of the Leadership Computing Facilities at Argonne National Laboratory and Oak Ridge National Laboratory and of the High Performance Production Computing capabilities at Lawrence Berkeley National Laboratory. The recommendation includes not less than \$150,000,000 for the Argonne Leadership Computing Facility, not less than \$225,000,000 for the Oak Ridge Leadership Computing Facility, and not less than \$110,000,000 for the National Energy Research Scientific Computing Center at Lawrence Berkeley National Laboratory. Within available funds, the recommendation includes \$90,000,000 to support necessary infrastructure upgrades and operations for ESnet.

Mathematical, Computational, and Computer Sciences Research.—The Committee notes the importance of a strong research program in applied and computational mathematics to the Depart-

ment's mission. Maintaining international leadership in high performance computing requires a long-term and sustained commitment to basic research in computing and computational sciences, including applied math, software development, networking science, and computing competency among scientific fields. Within available funds, the recommendation provides not less than \$250,000,000 for Mathematical, Computational, and Computer Sciences Research, including not less than \$10,000,000 for the Computational Science Graduate Fellowship program.

Within available funds, the recommendation includes up to \$40,000,000 for the development of AI-optimized emerging memory technology for AI-specialized hardware to drive national competitiveness.

The Committee is aware that the Department of Defense, National Institutes of Health, universities, and private entities have formed partnerships to undertake two of the largest national research investigations of Traumatic Brain Injury (TBI) ever conducted in the United States. While leadership and investigators from the TRACK-TBI have developed productive relationships with national laboratory scientists, more collaboration may be needed to develop advanced statistical methods and leverage advances in data science and deep analytics. The Committee encourages the Department to collaborate with the CARE and TRACK-TBI investigators to utilize the national laboratory capabilities to apply the most advanced statistical methods to interrogate the highly complex CARE and TRACK-TBI data sets. The Department is directed to conduct such collaborations on a reimbursable basis through Strategic Partnership Projects.

BASIC ENERGY SCIENCES

The Basic Energy Sciences program funds basic research in materials science, chemistry, geoscience, and bioscience. The science breakthroughs in this program enable a broad array of innovation in energy technologies and other industries critical to American economic competitiveness.

Research.—Within available funds, the recommendation provides \$24,088,000 for the Batteries and Energy Storage Innovation Hub, up to \$20,000,000 for the Fuels from Sunlight Innovation Hub, \$115,000,000 for the Energy Frontier Research Centers, \$532,000,000 for facilities operations of the nation's light sources, \$260,088,000 for facilities operations of the high flux neutron sources, \$142,000,000 for facilities operations of the Nanoscale Science Research Centers (NSRC), and \$25,000,000 for the Experimental Program to Stimulate Competitive Research.

Within funds for operations of the nation's light sources, the Department is encouraged to invest in capital improvements at all of the light sources. It is imperative that these facilities continue to provide users with state-of-the-art capabilities to ensure U.S. science leadership and innovation.

The recommendation provides \$12,000,000 for other project costs, including \$3,000,000 for Proton Power Upgrade, \$2,000,000 for Linac Coherent Light Source-II HE, \$1,000,000 for Second Target Station, and \$6,000,000 for Cryomodule Repair & Maintenance Fa-

cility. The recommendation includes \$15,000,000 for NSRC Recapitalization and \$15,000,000 for NSLS-II Experimental Tools-II.

BIOLOGICAL AND ENVIRONMENTAL RESEARCH

The Biological and Environmental Research (BER) program supports advances in energy technologies and related science through research into complex biological and environmental systems.

The recommendation includes not less than \$390,000,000 for Biological Systems Science and not less than \$355,000,000 for Earth and Environmental Systems Sciences.

The recommendation provides \$100,000,000 for the Bioenergy Research Centers and \$15,000,000 to continue development of a multi-scale genes-to-ecosystem approach that supports a predictive understanding of gene functions and how they scale within complex biological and environmental systems.

The Committee supports the Department's efforts to build programmatic bridges and leverage its resources among biological, earth, and environmental science programs to facilitate the seamless quantification and prediction of biological-environmental interactions from molecular to ecosystem scales. The Committee encourages the Department to expand its growing focus on the science of biology-based products to advance critical mission needs and to maintain international leadership. The Committee continues to support the Department's establishment of a national microbiome database collaborative and provides \$10,000,000 for microbiome research initiatives, including development of the microbiome database.

The recommendation includes not less than \$10,000,000 for the low-dose radiation research program.

The Committee continues to support the Department's funding for colleges and universities to examine and evaluate earth system models and validate their ability to reproduce earth systems. The Committee is aware that reducing uncertainty in understanding cloud aerosol effects requires investment in observational studies, modeling, and computing. The recommendation provides \$15,000,000 for cloud-aerosol research. The Department is encouraged to establish an Earth System Grid Federation node for Arctic climate data.

The recommendation includes \$30,000,000 for ongoing efforts to develop observational assets and associated research to study the nation's major land-water interfaces, including the Great Lakes and the Puget Sound, that leverages national laboratories' assets as well as local infrastructure and expertise at universities and other research institutions.

Existing scientific and modeling approaches for understanding energy-water systems cannot accurately simulate and predict rapid changes and feedbacks between coupled water and energy systems in an uncertain future where extremes, such as droughts, floods, heat waves, and wildfires, are becoming more frequent, intense, and widespread. In prior fiscal years, the Department had an Energy-Water Nexus crosscutting initiative, which included the Office of Energy Efficiency and Renewable Energy, Office of Fossil Energy, the Office of Science, and other offices, to focus on more resilient and sustainable energy-water systems with a focus on desali-

nation technology and regional data, modeling, and analysis test beds. The Department is encouraged to resume the Office of Science's activities of the prior Energy-Water Nexus crosscutting initiative, including regional-scale data, modeling, and analysis test-beds targeted to universities with research competencies in water scarcity issues in drought regions of the United States with the potential to build a hub network on integrated assessment modeling for complex systems prediction for environmental change in relation to water scarce regions with national labs as partners. The Department is directed to submit to the Committee not later than 90 days of enactment of this Act a report that outlines the activities previously conducted under the Energy-Water Nexus across the Department, which activities have continued, which activities ended, and an explanation for the termination of each activity that ended. The Department is directed to coordinate all energy-water nexus activities across the Offices of Energy Efficiency and Renewable Energy, Electricity, Fossil Energy, Nuclear Energy, Science, and any other relevant program offices.

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

The Committee directs the Department to give priority to optimizing the operation of BER user facilities.

FUSION ENERGY SCIENCES

The Fusion Energy Sciences program supports basic research and experimentation aiming to harness nuclear fusion for energy production.

Research.—Within available funds, the recommendation provides \$20,000,000 for High Energy Density Laboratory Plasmas, including activities for LaserNetUS.

Within available funds, the recommendation includes \$5,000,000 for the Innovation Network for Fusion Energy (INFUSE) research and development program. The fiscal year 2020 Act directed the Department to provide a plan on a possible cost share program for reactor technologies. The Committee is still awaiting this plan and directs the Department to provide the plan not later than 30 days after enactment of this Act and prior to any funds being obligated for these purposes.

The recommendation includes \$12,000,000 for the Materials Plasma Exposure eXperiment.

Construction.—The Committee recommends \$260,000,000 for the U.S. contribution to the ITER project, of which not less than \$100,000,000 is for in-cash contributions. The Committee continues to believe the ITER project represents an important step forward for energy sciences and has the potential to revolutionize the current understanding of fusion energy. The Department is directed to provide to the Committee not later than 180 days after enactment of this Act the performance baseline for the entire project, including an updated baseline for Subproject 1 and a baseline for Subproject 2.

HIGH ENERGY PHYSICS

The High Energy Physics program supports fundamental research into the elementary constituents of matter and energy and ultimately into the nature of space and time. The program focuses on particle physics theory and experimentation in three areas: the energy frontier, which investigates new particles and fundamental forces through high-energy experimentation; the intensity frontier, which focuses on rare events to better understand our fundamental model of the universe's elementary constituents; and the cosmic frontier, which investigates the nature of the universe and its form of matter and energy on cosmic scales.

Research.—Within available funds, the recommendation provides \$100,000,000 for the HL-LHC Upgrade Projects.

The Committee strongly urges the Department to maintain a balanced portfolio of small-, medium-, and large-scale experiments and to ensure adequate funding for research performed at universities and the national laboratories. The Committee encourages the Department to fund facility operations at levels for optimal operations.

NUCLEAR PHYSICS

The Nuclear Physics program supports basic research into the fundamental particles that compose nuclear matter, how they interact, and how they combine to form the different types of matter observed in the universe today.

Research.—Within available funds, the recommendation provides \$25,000,000 for Electron Ion Collider R&D.

The Committee directs the Department to give priority to optimizing operations within Medium Energy Nuclear Physics and at the Facility for Rare Isotope Beams.

Within available funds, the Committee directs the Department to provide optimal funding for major items of equipment, including the Gamma-Ray Energy Tracking Array, the Super Pioneering High Energy Nuclear Interaction Experiment, MOLLER, and the High Rigidity Spectrometer.

Within available funds, the recommendation includes up to \$10,000,000 for a consortium of research universities to apply advanced manufacturing techniques to radioisotope production, including automation, digitalization, artificial intelligence, fabrication, and state-of-the-art characterization instrumentation, and to establish a traineeship program for students to develop the future workforce.

WORKFORCE DEVELOPMENT FOR TEACHERS AND SCIENTISTS

The Workforce Development for Teachers and Scientists program ensures that the nation has the sustained pipeline of science, technology, engineering, and mathematics (STEM) workers to meet national goals and objectives.

The Committee recommends \$30,000,000 for Workforce Development for Teachers and Scientists. Within available funds, the Committee recommends not less than \$14,000,000 for the Science Undergraduate Laboratory Internship, not less than \$2,000,000 for the Community College Institute of Science and Technology, and

not less than \$5,000,000 for the Office of Science Graduate Student Research Program. Within available funds, the Committee recommends not less than \$1,500,000 for outreach activities for the Department to widely publicize its opportunities and diversify the applicant pool, with an emphasis on targeted recruitment of individuals traditionally underrepresented in STEM.

SCIENCE LABORATORIES INFRASTRUCTURE

The Science Laboratories Infrastructure program sustains mission-ready infrastructure and safe and environmentally responsible operations by providing the infrastructure improvements necessary to support leading edge research by the Department’s national laboratories.

The Department is directed to submit to the Committee not later than 180 days after enactment of this Act a report on the funding levels required for operations and maintenance of Oak Ridge National Laboratory nuclear facilities. The report shall be coordinated between the Office of Science and Office of Nuclear Energy and should include an accounting of how funds have been spent for the previous three fiscal years and how funds will be spent for the fiscal year 2021. The report should also include information for the next four fiscal years on the funding levels required for operations for each facility and funding levels required for multi-year infrastructure improvements. The report should provide a breakdown of users, operations time, and funding allocated to activities related to the Office of Science or to the Office of Nuclear Energy.

Within available funds for General Plant Projects, the Department is directed to prioritize projects related to power resilience.

NUCLEAR WASTE DISPOSAL

Appropriation, 2020	---
Budget estimate, 2021	27,500,000
Recommended, 2021	27,500,000
Comparison:	
Appropriation, 2020	+27,500,000
Budget estimate, 2021	---

The recommendation includes \$27,500,000 for Nuclear Waste Disposal, of which \$20,000,000 is for interim storage and \$7,500,000 is for Nuclear Waste Fund (NWF) oversight activities. Funds for NWF oversight activities are derived from the NWF.

The Committee is disappointed with the lack of details in the Department’s proposal for interim storage activities, many of which appear to be generic efforts that have been underway for years and are funded within the Office of Nuclear Energy’s Integrated Waste Management Systems program in this recommendation. Within available funds in this account for interim storage, the Department is directed to move forward under existing authority to identify a site for a federal interim storage facility. The Department is further directed to use a consent-based approach when undertaking these activities. The Department is reminded that the Nuclear Waste Policy Act provides for a wide variety of activities that may take place prior to the limitation in section 141(g).

DEPARTMENT OF ENERGY
(Amounts in thousands)

	FY 2020 Enacted	FY 2021 Request	Bill	Bill vs. Enacted	Bill vs. Request
Pension and Community and Regulatory Support.....	21,762	18,748	18,748	-3,014	---
Title X Uranium/Thorium Reimbursement Program.....	5,250	21,284	21,284	+16,034	---
TOTAL, UED&D FUND.....	881,000	806,244	821,583	-59,417	+15,339

SCIENCE

Advanced Scientific Computing Research:					
Research.....	791,265	819,106	846,055	+54,790	+26,949
Construction:					
17-SC-20 Office of Science Exascale Computing Project (SC-ECP).....	188,735	168,945	168,945	-19,790	---
Subtotal, Advanced Scientific Computing Research.....	980,000	988,051	1,015,000	+35,000	+26,949
Basic Energy Sciences:					
Research.....	1,853,000	1,751,673	1,930,000	+77,000	+178,327
Construction:					
18-SC-10 Advanced Photon Source Upgrade (APS-U), ANL.....	170,000	150,000	160,000	-10,000	+10,000
18-SC-11 Spallation Neutron Source Proton Power Upgrade (PPU), ORNL.....	60,000	5,000	5,000	-55,000	---
18-SC-12 Advanced Light Source Upgrade (ALS-U), LBNL.....	60,000	13,000	75,000	+15,000	+62,000
18-SC-13 Linac Coherent Light Source-II-High					

DEPARTMENT OF ENERGY
(Amounts in thousands)

	FY 2020 Enacted	FY 2021 Request	Bill	Bill vs. Enacted	Bill vs. Request
Energy (LCLS-II-HE), SLAC.....	50,000	14,000	70,000	+20,000	+56,000
19-SC-14 Second Target Station (STS), ORNL.....	20,000	1,000	1,000	-19,000	---
21-SC-10 Cryomodule Repair and Maintenance Facility.....	---	1,000	1,000	+1,000	---
Subtotal, Construction.....	360,000	184,000	312,000	-48,000	+128,000
Subtotal, Basic Energy Sciences.....	2,213,000	1,935,673	2,242,000	+29,000	+306,327
Biological and Environmental Research.....	750,000	516,934	760,000	+10,000	+243,066
Fusion Energy Sciences					
Research.....	414,000	313,151	415,000	+1,000	+101,849
Construction:					
14-SC-60 U.S. Contributions to ITER (U.S. ITER)	242,000	107,000	260,000	+18,000	+153,000
20-SC-61 Matter in Extreme Conditions (MEC) Petawatt Upgrade, SLAC.....	15,000	5,000	5,000	-10,000	---
Subtotal, Construction.....	257,000	112,000	265,000	+8,000	+153,000
Subtotal, Fusion Energy Sciences.....	671,000	425,151	680,000	+9,000	+254,849

DEPARTMENT OF ENERGY
(Amounts in thousands)

	FY 2020 Enacted	FY 2021 Request	Bill	Bill vs. Enacted	Bill vs. Request
High Energy Physics					
Research.....	814,000	897,631	814,000	---	+116,369
Construction:					
11-SC-40 Long Baseline Neutrino Facility / Deep Underground Neutrino Experiment (LBNF/DUNE), FNAL.....	171,000	100,500	140,000	-31,000	+39,500
18-SC-42 Proton Improvement Plan II (PIP-II), FNAL.....	60,000	20,000	96,000	+36,000	+76,000
Subtotal, Construction.....	231,000	120,500	236,000	+5,000	+115,500
Subtotal, High Energy Physics.....	1,045,000	818,131	1,050,000	+5,000	+231,869
Nuclear Physics:					
Research.....	660,000	635,027	692,700	+32,700	+57,673
Construction:					
14-SC-50 Facility for Rare Isotope Beams, MSU...	40,000	5,300	5,300	-34,700	---
20-SC-51 U.S. Stable Isotope Production and Research Center, ORNL.....	12,000	12,000	12,000	---	---
20-SC-52 Electron Ion Collider, BNL.....	1,000	1,000	5,000	+4,000	+4,000
Subtotal, Construction.....	53,000	18,300	22,300	-30,700	+4,000
Subtotal, Nuclear Physics.....	713,000	653,327	715,000	+2,000	+61,673
Workforce Development for Teachers and Scientists.....	28,000	20,500	30,000	+2,000	+9,500

DEPARTMENT OF ENERGY
(Amounts in thousands)

	FY 2020 Enacted	FY 2021 Request	Bill	Bill vs. Enacted	Bill vs. Request
Science Laboratories Infrastructure:					
Infrastructure Support:					
Payment in Lieu of Taxes.....	4,540	4,650	4,650	+110	---
Oak Ridge Landlord.....	5,610	5,860	5,860	+250	---
Facilities and Infrastructure.....	56,850	6,200	52,240	-4,610	+46,040
Oak Ridge Nuclear Operations.....	26,000	6,000	6,000	-20,000	---
Subtotal, Infrastructure Support.....	93,000	22,710	68,750	-24,250	+46,040
Construction:					
17-SC-71 Integrated Engineering Research Center, FNAL.....	22,000	12,000	20,500	-1,500	+8,500
18-SC-71 Energy Sciences Capability, PNNL.....	23,000	23,000	23,000	---	---
19-SC-71 Science User Support Center, BNL.....	20,000	7,000	20,000	---	+13,000
19-SC-72 Electrical Capacity and Distribution Capability, ANL.....	30,000	---	---	-30,000	---
19-SC-73 Translational Research Capability, ORNL..	25,000	10,000	10,000	-15,000	---
19-SC-74 BioEPIC, LBNL.....	15,000	6,000	15,000	---	+9,000
20-SC-71 Critical Utilities Rehabilitation Project, BNL.....	20,000	15,000	20,000	---	+5,000
20-SC-72 Seismic and Safety Modernization, LBNL...	10,000	10,000	10,000	---	---
20-SC-73 CEBAF Renovation and Expansion, TJNAF ...	2,000	2,000	2,000	---	---
20-SC-74 Craft Resources Support Facility, ORNL ..	15,000	25,000	25,000	+10,000	---
20-SC-75 Large Scale Collaboration Center, SLAC ..	11,000	8,000	8,000	-3,000	---
20-SC-76 Tritium System Demolition and Disposal, PPPL.....	13,000	19,400	18,000	+5,000	-1,400
20-SC-77 Argonne Utilities Upgrade, ANL.....	500	2,000	2,000	+1,500	---
20-SC-78 Linear Assets Modernization Project, LBNL	500	2,000	2,000	+1,500	---
20-SC-79 Critical Utilities Infrastructure					

DEPARTMENT OF ENERGY
(Amounts in thousands)

	FY 2020 Enacted	FY 2021 Request	Bill	Bill vs. Enacted	Bill vs. Request
Revitalization, SLAC	500	2,000	2,000	+1,500	---
20-SC-80 Utilities Infrastructure Project, FNAL ..	500	2,000	2,000	+1,500	---
21-SC-71 Princeton Plasma Innovation Center, PPPL.	---	2,000	2,000	+2,000	---
21-SC-72 Critical Infrastructure Recovery & Renewal, PPPL.....	---	2,000	2,000	+2,000	---
21-SC-73 Ames Infrastructure Modernization.....	---	2,000	2,000	+2,000	---
Subtotal, Construction:.....	208,000	151,400	185,500	-22,500	+34,100
Subtotal, Science Laboratories Infrastructure.	301,000	174,110	254,250	-46,750	+80,140
Safeguards and Security.....	112,700	115,623	115,750	+3,050	+127
Program Direction.....	186,300	190,306	188,000	+1,700	-2,306
TOTAL, SCIENCE.....	7,000,000	5,837,806	7,050,000	+50,000	+1,212,194
NUCLEAR WASTE DISPOSAL.....	---	27,500	27,500	+27,500	---
ADVANCED RESEARCH PROJECTS AGENCY-ENERGY					
ARPA-E Projects.....	390,000	---	398,000	+8,000	+398,000
Program Direction.....	35,000	21,256	37,000	+2,000	+15,744
Rescission of Prior Year Balances.....	---	-332,000	---	---	+332,000
TOTAL, ARPA-E.....	425,000	-310,744	435,000	+10,000	+745,744