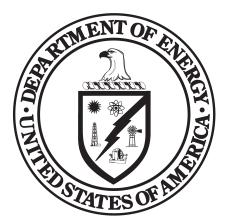
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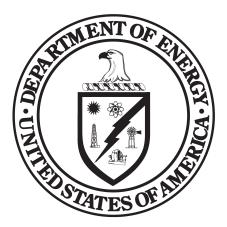
# **Department of Energy** FY 2021 Congressional Budget Request



# Laboratory Tables Preliminary

DOE/CF-0168

# Department of Energy FY 2021 Congressional Budget Request



# Laboratory Tables Preliminary

The numbers depicted in this document represent the <u>gross</u> level of DOE <u>budget authority</u> for the years displayed. The figures include discretionary and supplemental funding. They do not consider revenues/receipts, use of prior year balances, deferrals, rescissions, or other adjustments appropriated as offsets to the DOE appropriations by the Congress.

February 2020

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Office of Chief Financial Officer

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### DEPARTMENT OF ENERGY Laboratory Table Summary Report

FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Ames Laboratory	48,592	47,024	22,601
Ames Site Office	658	678	690
Argonne National Laboratory	835,000	867,162	720,619
Argonne Site Office	4,415	4,424	4,590
Bay Area Site Office	0	5,834	5,947
Berkeley Site Office	3,588	0	0
Bettis Atomic Power Laboratory	432,317	386,962	375,825
Brookhaven National Laboratory	585,642	575,792	528,627
Brookhaven Site Office	4,905	4,575	4,546
Carlsbad Area Office	19,003	18,371	17,838
Chicago Operations Office	341,953	362,258	325,979
Consolidated Business Center	36,017	44,697	35,627
Consolidated Service Center - Illinois	0	22,621	22,689
Consolidated Service Center - Tennessee	0	22,621	22,688
East Tennessee Technology Park (K25)	236,281	232,348	168,961
Energy Technology Engineering Center	11,000	18,200	11,000
Fermi National Accelerator Laboratory	547,014	584,493	398,447
Fermi Site Office	2,581	3,070	2,937
Fernald Environmental Management Project	1,100	1,100	1,100
Fernald Site	12,465	13,791	11,902
Golden Field Office	499,192	737,377	166,395
Grand Junction Office	33,376	40,437	40,101
Hanford Site	943,976	991,180	652,084
Idaho National Laboratory	1,824,417	1,744,659	1,473,460
Idaho Operations Office	212,590	421,550	128,654
Kansas City National Security Complex (KCNSC)	753,953	1,013,074	1,199,296
Kansas City Site Office	7,602	7,587	7,633
Knolls Atomic Power Laboratory	768,005	730,718	661,840
Lawrence Berkeley National Laboratory	882,595	888,572	612,742
Lawrence Livermore National Laboratory	1,596,081	1,887,839	2,022,552
Lexington Office	200	200	200
Livermore Site Office	17,641	19,166	18,925
Los Alamos National Laboratory	2,534,686	2,578,527	3,428,436
Los Alamos Site Office	15,699	17,364	17,740
Miamisburg Site	5	5	5
Moab Site	45,000	45,000	47,653
Mound Site	14,346	15,297	12,738
National Energy Technology Lab	686,186	712,848	427,506

### DEPARTMENT OF ENERGY Laboratory Table Summary Report

FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
National Renewable Energy Laboratory	364,076	464,275	216,785
Naval Petroleum Reserve No 1	8,000	12,000	11,000
Naval Reactors Laboratory Field Office	20,193	21,600	21,480
Naval Research Laboratory	10,250	10,600	8,590
Nevada Field Office	103,345	102,178	109,081
Nevada National Security Site	414,907	510,730	744,032
Nevada Operations Office	4,740	4,741	5,065
NNSA Albuquerque Complex	913,124	954,370	823,761
NNSA Production Office (NPO)	38,045	32,617	35,495
Oak Ridge Institute for Science & Education	34,052	21,383	12,157
Oak Ridge National Laboratory	1,887,444	2,058,670	1,502,682
Oak Ridge National Laboratory Site Office	5,551	5,934	6,074
Oak Ridge Office	116,070	79,533	72,829
Oak Ridge Reservation	74,000	101,100	58,000
Oak Ridge Reservation (Off-Site)	5,700	5,900	4,930
Office of River Protection	1,605,270	1,648,543	1,286,508
Office of Scientific & Technical Information	11,586	11,937	11,689
Pacific Northwest National Laboratory	643,961	599,239	549,526
Pacific Northwest Site Office	5,084	5,186	5,036
Paducah Gaseous Diffusion Plant	290,185	326,737	297,447
Pantex Plant	825,930	885,463	1,002,025
Pinellas Site	5,545	4,333	4,535
Portsmouth Gaseous Diffusion Plant	481,406	498,627	496,306
Princeton Plasma Physics Laboratory	112,091	100,053	101,592
Princeton Site Office	2,032	2,210	2,245
Richland Operations Office	60,700	61,273	53,030
Rocky Flats Site	36,846	31,968	29,451
Sandia National Laboratories	2,368,996	2,518,989	2,797,577
Savannah River National Laboratory	2,569	3,088	1,460
Savannah River Operations Office	240,215	254,160	242,934
Savannah River Site	1,963,781	2,408,783	2,619,470
Savannah River Site Office	550	700	600
Separations Process Research Unit	15,000	15,300	15,000
SLAC National Accelerator Laboratory	492,090	404,105	332,715
Southeastern Power Administration Office	75,324	77,301	96,647
Southwestern Power Administration Office	126,876	138,613	159,444
Stanford Site Office	2,476	0	0
Strategic Petroleum Reserve - Bayou Choctow	13,523	13,806	15,851

### DEPARTMENT OF ENERGY Laboratory Table Summary Report

FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Strategic Petroleum Reserve - Big Hill	22,176	19,276	23,581
Strategic Petroleum Reserve - Bryan Mound	25,473	21,139	17,358
Strategic Petroleum Reserve - West Hackberry	24,093	22,299	20,770
Strategic Petroleum Reserve Project Office	117,637	115,720	96,239
Thomas Jefferson National Accelerator Facility	133,005	139,466	134,436
Thomas Jefferson Site Office	1,971	2,148	2,241
University of Rochester	80,000	76,480	75,000
Washington Headquarters	5,177,649	6,017,722	6,440,150
Waste Isolation Pilot Plant	406,991	399,613	388,023
Weldon Spring Site Office	2,996	3,193	4,092
West Valley Demonstration Project	78,133	79,611	92,411
Western Area Power Administration Office	569,413	589,398	603,927
Y-12 National Security Complex	1,873,220	1,886,572	2,242,356
Y-12 Site Office	89,020	75,020	45,900
Grants	935,195	911,631	451,089
Undesignated LPI	39,095	19,701	2,049
Total DOE by Lab, Plant, and Installation	36,915,682	39,842,455	37,993,244

## DEPARTMENT OF ENERGY Laboratory Table Ames Laboratory FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Ames Laboratory			
Research - Basic Energy Sciences	17,620	17,578	17,578
Basic Energy Sciences	17,620	17,578	17,578
Biological & Environmental Research	1,250	1,250	0
Workforce Development for Teachers & Scientists	538	0	0
21-SC-78, Ames Infrastructure Modernization	0	0	2,000
Construction - Science Laboratories Infrastructure	0	0	2,000
Science Laboratories Infrastructure	0	0	2,000
Safeguards and Security - SC	1,231	1,231	1,231
Science Programs	20,639	20,059	20,809
Advanced Manufacturing	25,000	25,000	0
Vehicle Technologies	650	300	0
Hydrogen and Fuel Cells Technologies	686	830	0
Energy Efficiency and Renewable Energy Programs	26,336	26,130	0
Resilient Distribution Systems	75	0	0
Transformer Resilience and Advanced Components	450	0	0
Electricity Programs	525	0	0
Advanced Energy Systems	500	835	1,792
Cross Cutting Research	300	0	0
Advanced Coal Energy Systems & CCUS	800	835	1,792
Fossil Energy	800	835	1,792
Other Departmental Administration	292	0	0
Departmental Administration Programs	292	0	0
Total Ames Laboratory	48,592	47,024	22,601

## DEPARTMENT OF ENERGY Laboratory Table Ames Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Ames Site Office			
Program Direction - SC	658	678	690
Science Programs	658	678	690
Total Ames Site Office	658	678	690

# DEPARTMENT OF ENERGY Laboratory Table Argonne National Laboratory FY 2021 (Dollars in Thousands)

FY 2020	FY 2021
Enacted	Request Detail
0 30	47
0 30	47
32 1,500	3,750
32 1,500	3,750
0 0	30
50 0	0
50 0	0
50 0	30
50 0	30
32 1,530	3,827
640	440
39 1,019	947
06 767	771
9 2,426	2,158
0 22,700	25,698
1,500	1,800
33 1,462	0
14 25,662	27,498
18 12,010	11,899
2,472	2,432
4,800	0
30 7,272	2,432
20 225	230
3,261	3,358
25 3,486	3,588
26 50,856	47,575
428	428
428	428
98 160,042	154,856
160,042	154,856
239,274	228,709
170,000	150,000
170,000	150,000
409,274	378,709
50 30,852	20,222
0 181	189
0 181	189
95 13,913	9,670
95 13,913	9,670
34 31,433	29,506
34 31,433	29,506
94 0	0
10,800	0
0 500	2,000
00 30,000	2,000
	2,000
	2,000
	10,019
00 93 96	30,500 41,300 10,019

# DEPARTMENT OF ENERGY Laboratory Table Argonne National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021
Science Programs	660,809	697,014	Request Detail 605,171
Bioenergy Technologies	10,218	10,218	2,500
Building Technologies	189	2,327	200
Advanced Manufacturing	3,120	2,206	667
Vehicle Technologies	58,000	39,700	16,000
Strategic Programs	0	1,650	200
Geothermal Technologies	51	25	0
Solar Energy Technologies	2,637	874	1,469
Water Power Technologies	791	727	307
Wind Energy Technologies	1,052	1,646	649
Hydrogen and Fuel Cells Technologies	5,399	6,539	2,500
Energy Efficiency and Renewable Energy Programs	81,457	65,912	24,492
	5,327	5,000	5,000
Transmission Reliability and Resilience		759	750
Resilient Distribution Systems	2,072 525	0	0
Energy Storage Research	525	0	0
Energy Storage	525		
Transmission Permitting and Technical Assistance		125	125
Electricity Programs	7,924	5,884	5,875
Cybersecurity for Energy Delivery Systems	150	900	1,062
Infrastructure Security and Energy Restoration	1,865	5,000	5,898
Cybersecurity, Energy Security, and Emergency Response Programs	2,015	5,900	6,960
Cross Cutting Research	0	30	40
Advanced Coal Energy Systems & CCUS	0	30	40
Unconventional Fossil Energy from Petroleum - Oil Technologies	150	150	55
Fossil Energy	150	180	95
Crosscutting Technology Development	1,610	330	30
Nuclear Science User Facilities	450	1,050	750
NEAMS Joint Modeling and Simulation Program	5,650	0	0
Transformational Challenge Reactor	0	2,500	2,500
Joint Modeling and Simulation Program	0	5,000	5,000
Nuclear Energy Enabling Technologies	7,710	8,880	8,280
Light Water Reactor Sustainability	150	50	50
Advanced Reactor Technologies	9,600	8,374	11,000
Versatile Advanced Test Reactor	958	7,000	0
Advanced SMR R&D	1,343	0	0
Reactors Concepts RD&D	12,051	15,424	11,050
Regulatory Development	0	5,200	2,600
Advanced Reactors Demonstration Program	0	5,200	2,600
Program Direction - Nuclear Energy	125	290	185
International Nuclear Energy Cooperation	90	0	0
Materials Recovery and Waste Form Development (MRWFD)	0	703	281
Material recovery and waste form development	0	703	281
Triso Fuel and Graphite Qualification	0	500	600
Total Advanced Fuels	0	500	600
Fuel Cycle Research and Development	8,819	0	0
Fuel Cycle Laboratory R&D	0	2,711	100
Used Nuclear Fuel Disposition R&D	0	2,000	2,000
Integrated Waste Management System	0	2,000	0
Fuel Cycle Research and Development FCRD	8,819	7,914	2,981
Nuclear Energy Programs	28,795	37,708	25,096
			Page 7/12

#### DEPARTMENT OF ENERGY Laboratory Table Argonne National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Other Departmental Administration	352	55	55
Strategic Partnership Projects	200	750	100
Departmental Administration Programs	552	805	155
Environment, Health, Safety & Security	945	945	945
Environment, Health, Safety, and Security	945	945	945
Other Defense Activites Programs	945	945	945
Total Argonne National Laboratory	835,000	867,162	720,619

### DEPARTMENT OF ENERGY

Laboratory Table Argonne Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Argonne Site Office			
Program Direction - SC	4,415	4,424	4,590
Science Programs	4,415	4,424	4,590
Total Argonne Site Office	4,415	4,424	4,590

## DEPARTMENT OF ENERGY Laboratory Table Bay Area Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Bay Area Site Office			
Program Direction - SC	0	5,834	5,947
Science Programs	0	5,834	5,947
Total Bay Area Site Office	0	5,834	5,947

## DEPARTMENT OF ENERGY Laboratory Table Berkeley Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Berkeley Site Office			
Program Direction - SC	3,588	0	0
Science Programs	3,588	0	0
Total Berkeley Site Office	3,588	0	0

## DEPARTMENT OF ENERGY Laboratory Table Bettis Atomic Power Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Bettis Atomic Power Laboratory			
Naval Reactors Development	212,421	231,140	264,037
Columbia-Class Reactor Systems Development	66,014	23,881	15,028
S8G Prototype Refueling	19,424	3,245	2,888
Naval Reactors Operations and Infrastructure	107,499	117,287	82,407
17-D-911 BL Fire System Upgrade	13,200	0	0
14-D-901 Spent Fuel Handling Recapitalization Project, NRF	13,759	11,409	11,465
Construction - Naval Reactors	26,959	11,409	11,465
Naval Reactors Programs	432,317	386,962	375,825
Total Bettis Atomic Power Laboratory	432,317	386,962	375,825

## DEPARTMENT OF ENERGY Laboratory Table Brookhaven National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Brookhaven National Laboratory			
Safety and Environmental Operations	325	427	445
Operating	325	427	445
Infrastructure and Operations	325	427	445
Weapons Activities Programs	325	427	445
International Nuclear Security	0	170	195
Domestic Radiological Security	280	0	0
International Radiological Security	75	100	93
Nuclear Smuggling Detection and Deterrence	300	1,232	1,238
Global Material Security	655	1,502	1,526
Conversion (formerly HEU Reactor Conversion)	0	254	275
Material Management and Minimization	0	254	275
Nonproliferation & Arms Control	4,681	2,920	2,893
Proliferation Detection R&D	1,120	3,680	3,621
Nonproliferation Fuels Development	429	0	0,021
Defense Nuclear Nonproliferation R&D	1,549	3,680	3,621
Counterterrorism and Counterproliferation	2,519	2,595	2,672
Nuclear Counterterrorism & Incident Response	2,519	2,595	2,672
Defense Nuclear Nonproliferation Programs	9,404	10,951	10,987
Research - Advanced Scientific Computing Research	3,404	1,228	1,233
Advanced Scientific Computing Research	1,590	1,228	1,233
Research - Basic Energy Sciences	169,571	182,858	1,235
	169,571	182,858	169,475
Basic Energy Sciences Biological & Environmental Research	17,306	11,998	9,448
Research - High Energy Physics	79,255 3,000	80,167 2,942	67,847 17,000
11-SC-40, LBNF/DUNE, FNAL	3,000		
Construction - High Energy Physics		2,942	17,000
High Energy Physics	82,255	83,109	84,847
Operations and Maintenance - Nuclear Physics	209,914	222,778	211,353
20-SC-52, Electron Ion Collider, BNL	0	1,000	1,000
Construction - Nuclear Physics	0	1,000	1,000
Nuclear Physics	209,914	223,778	212,353
Workforce Development for Teachers & Scientists	2,506	0	0
20-SC-71, Critical Utilities Rehabilitation Project, BNL	0	20,000	15,000
19-SC-71, Science User Support Center, BNL	7,000	20,000	7,000
17-SC-73, Core Facility Revitalization, BNL	42,200	0	0
Construction - Science Laboratories Infrastructure	49,200	40,000	22,000
Science Laboratories Infrastructure	49,200	40,000	22,000
Safeguards and Security - SC	13,933	14,013	14,013
Science Programs	546,275	556,984	513,369
Bioenergy Technologies	1,000	0	0
Building Technologies	0	950	0
Vehicle Technologies	2,500	2,500	2,000
Geothermal Technologies	750	0	0
Hydrogen and Fuel Cells Technologies	996	1,206	0
Energy Efficiency and Renewable Energy Programs	5,246	4,656	2,000
Transmission Reliability and Resilience	1,400	500	500
Electricity Programs	1,400	500	500
Nuclear Science User Facilities	500	650	500

#### DEPARTMENT OF ENERGY Laboratory Table Brookhaven National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Nuclear Energy Enabling Technologies	500	650	500
Advanced Reactor Technologies	102	110	150
Versatile Advanced Test Reactor	145	0	0
Reactors Concepts RD&D	247	110	150
Accident Tolerant Fuels	0	712	0
Total Advanced Fuels	0	712	0
Fuel Cycle Research and Development	1,434	0	0
Fuel Cycle Laboratory R&D	0	472	71
Fuel Cycle Research and Development FCRD	1,434	1,184	71
Nuclear Energy Programs	2,181	1,944	721
Other Departmental Administration	105	80	80
Strategic Partnership Projects	0	0	275
Departmental Administration Programs	105	80	355
Environment, Health, Safety & Security	250	250	250
Environment, Health, Safety, and Security	250	250	250
Other Defense Activites Programs	250	250	250
Small Sites - NDEC	20,456	0	0
Non-Defense Environmental Cleanup Programs	20,456	0	0
Total Brookhaven National Laboratory	585,642	575,792	528,627

#### DEPARTMENT OF ENERGY Laboratory Table Brookhaven Site Office FY 2021 (Dollars in Thousands)

FY 2019 FY 2020 FY 2021 Enacted Enacted Request Detail **Brookhaven Site Office** Program Direction - SC 4,905 4,575 4,546 Science Programs 4,905 4,575 4,546 4,546 Total Brookhaven Site Office 4,905 4,575

## DEPARTMENT OF ENERGY Laboratory Table Carlsbad Area Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Carlsbad Area Office			
Domestic Radiological Security	545	0	0
Global Material Security	545	0	0
Defense Nuclear Nonproliferation Programs	545	0	0
Program Direction - Defense Environmental Cleanup	11,878	11,679	11,032
Safeguards and Security - Defense Environmental Cleanup	6,580	6,692	6,806
Defense Environmental Cleanup Programs	18,458	18,371	17,838
Total Carlsbad Area Office	19,003	18,371	17,838

## DEPARTMENT OF ENERGY Laboratory Table Chicago Operations Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Chicago Operations Office			
Advanced Simulation and Computing	2,000	2,000	0
Stockpile Research, Technology, and Engineering	2,000	2,000	0
Weapons Activities Programs	2,000	2,000	0
Research - Basic Energy Sciences	209,515	226,976	232,818
Basic Energy Sciences	209,515	226,976	232,818
Biological & Environmental Research	1,262	42,525	1,114
Research - Fusion Energy Sciences	21,112	7,799	9,759
Fusion Energy Sciences	21,112	7,799	9,759
Research - High Energy Physics	22,600	0	0
High Energy Physics	22,600	0	0
Operations and Maintenance - Nuclear Physics	58,869	80,974	80,304
Nuclear Physics	58,869	80,974	80,304
Safeguards and Security - SC	50	50	50
Program Direction - SC	24,546	0	0
Payment In Lieu of Taxes PILT	1,713	1,650	1,650
Science Programs	339,667	359,974	325,695
Nuclear Science User Facilities	2	0	0
NEAMS Joint Modeling and Simulation Program	234	0	0
Joint Modeling and Simulation Program	0	234	234
Nuclear Energy Enabling Technologies	236	234	234
Nuclear Energy Programs	236	234	234
Environment, Health, Safety & Security	50	50	50
Environment, Health, Safety, and Security	50	50	50
Other Defense Activites Programs	50	50	50
Total Chicago Operations Office	341,953	362,258	325,979

## DEPARTMENT OF ENERGY Laboratory Table Consolidated Business Center FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Consolidated Business Center			
Nuclear Material Removal	100	0	0
Material Management and Minimization	100	0	0
Defense Nuclear Nonproliferation Programs	100	0	0
Program Direction - National Nuclear Security Administration	2,100	2,100	2,100
Federal Salaries and Expenses Programs	2,100	2,100	2,100
Environment, Health, Safety & Security	259	259	259
Environment, Health, Safety, and Security	259	259	259
Other Defense Activites Programs	259	259	259
Closure Sites Administration	1,789	1,987	2,087
Program Direction - Defense Environmental Cleanup	31,769	30,351	31,181
Defense Environmental Cleanup Programs	33,558	32,338	33,268
Small Sites - NDEC	0	10,000	0
Non-Defense Environmental Cleanup Programs	0	10,000	0
Total Consolidated Business Center	36,017	44,697	35,627

#### DEPARTMENT OF ENERGY Laboratory Table Consolidated Service Center - Illinois FY 2021 (Dollars in Thousands)

FY 2019 FY 2020 FY 2021 Enacted Enacted Request Detail **Consolidated Service Center - Illinois** Program Direction - SC 0 22,621 22,689 Science Programs 0 22,621 22,689 Total Consolidated Service Center - Illinois 0 22,621 22,689

#### DEPARTMENT OF ENERGY Laboratory Table Consolidated Service Center - Tennessee FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Consolidated Service Center - Tennessee			
Program Direction - SC	0	22,621	22,688
Science Programs	0	22,621	22,688
Total Consolidated Service Center - Tennessee	0	22,621	22,688

#### DEPARTMENT OF ENERGY Laboratory Table East Tennessee Technology Park (K25) FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
East Tennessee Technology Park (K25)			
Safeguards and Security - Defense Environmental Cleanup	14,023	9,000	9,260
Defense Environmental Cleanup Programs	14,023	9,000	9,260
Small Sites - NDEC	10,000	10,000	0
Non-Defense Environmental Cleanup Programs	10,000	10,000	0
Oak Ridge Reservation (D&D Fund)	195,000	195,693	144,701
Pension and Community and Regulatory Support	17,258	17,655	15,000
Uranium Enrichment D&D Programs	212,258	213,348	159,701
Total East Tennessee Technology Park (K25)	236,281	232,348	168,961

#### DEPARTMENT OF ENERGY Laboratory Table Energy Technology Engineering Center FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Energy Technology Engineering Center			
Small Sites - NDEC	11,000	18,200	11,000
Non-Defense Environmental Cleanup Programs	11,000	18,200	11,000
Total Energy Technology Engineering Center	11,000	18,200	11,000

# DEPARTMENT OF ENERGY Laboratory Table Fermi National Accelerator Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Fermi National Accelerator Laboratory			
Proliferation Detection R&D	0	500	492
Defense Nuclear Nonproliferation R&D	0	500	492
Defense Nuclear Nonproliferation Programs	0	500	492
Research - Advanced Scientific Computing Research	174	874	874
Advanced Scientific Computing Research	174	874	874
Research - Basic Energy Sciences	135	135	135
Basic Energy Sciences	135	135	135
Research - High Energy Physics	342,303	323,994	271,514
18-SC-42, Proton Improvement Plan II (PIP-II), FNAL	20,000	60,000	20,000
11-SC-40, LBNF/DUNE, FNAL	127,000	168,058	83,500
11-SC-41, Muon to Electron Conversion Experiment, FNAL	30,000	0	0
Construction - High Energy Physics	177,000	228,058	103,500
High Energy Physics	519,303	552,052	375,014
Operations and Maintenance - Nuclear Physics	0	500	0
Nuclear Physics	0	500	0
Workforce Development for Teachers & Scientists	257	0	0
20-SC-80, Utilities Infrastructure Project, FNAL (20-SC-82)	0	500	2,000
17-SC-71, Integrated Engineering Research Center, FNAL	20,000	22,000	12,000
Construction - Science Laboratories Infrastructure	20,000	22,500	14,000
Science Laboratories Infrastructure	20,000	22,500	14,000
Safeguards and Security - SC	7,037	7,877	7,877
Science Programs	546,906	583,938	397,900
Other Departmental Administration	108	55	55
Departmental Administration Programs	108	55	55
Total Fermi National Accelerator Laboratory	547,014	584,493	398,447

## DEPARTMENT OF ENERGY Laboratory Table Fermi Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Fermi Site Office			
Program Direction - SC	2,581	3,070	2,937
Science Programs	2,581	3,070	2,937
Total Fermi Site Office	2,581	3,070	2,937

#### DEPARTMENT OF ENERGY Laboratory Table Fernald Environmental Management Project FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Fernald Environmental Management Project			
Closure Sites Administration	1,100	1,100	1,100
Defense Environmental Cleanup Programs	1,100	1,100	1,100
Total Fernald Environmental Management Project	1,100	1,100	1,100

## DEPARTMENT OF ENERGY Laboratory Table Fernald Site FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Fernald Site			
Legacy Management Activities - Defense	12,465	13,791	11,902
Legacy Management	12,465	13,791	11,902
Other Defense Activites Programs	12,465	13,791	11,902
Total Fernald Site	12,465	13,791	11,902

### DEPARTMENT OF ENERGY

Laboratory Table Golden Field Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Golden Field Office			
Bioenergy Technologies	68,910	95,000	650
Building Technologies	54,885	37,000	13,900
State Energy Program Grants	2,900	1,600	0
Weatherization Assistance Program	355	1,115	0
Training and Technical Assistance	1,355	450	0
Weatherization and Intergovernmental Programs	4,610	3,165	0
Program Direction - Energy Efficiency and Renewable Energy	20,585	24,516	18,400
Advanced Manufacturing	77,000	272,699	69,330
Federal Energy Management Program	4,140	11,623	400
Vehicle Technologies	2,800	0	1,000
Geothermal Technologies	8,500	47,800	12,500
Solar Energy Technologies	139,759	75,865	15,500
Water Power Technologies	42,356	65,550	12,340
Wind Energy Technologies	20,845	35,000	225
Hydrogen and Fuel Cells Technologies	53,007	68,859	21,850
Energy Efficiency and Renewable Energy Programs	497,397	737,077	166,095
Crosscutting Technology Development	1,495	0	0
Nuclear Energy Enabling Technologies	1,495	0	0
Nuclear Energy Programs	1,495	0	0
Indian Energy Policy & Programs	300	300	300
Indian Energy Policy and Programs (IEPP)	300	300	300
Total Golden Field Office	499,192	737,377	166,395

## DEPARTMENT OF ENERGY Laboratory Table Grand Junction Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Grand Junction Office			
Legacy Management Activities - Defense	33,376	40,437	40,101
Legacy Management	33,376	40,437	40,101
Other Defense Activites Programs	33,376	40,437	40,101
Total Grand Junction Office	33,376	40,437	40,101

## DEPARTMENT OF ENERGY Laboratory Table Hanford Site FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Hanford Site			
River Corridor and Other Cleanup Operations	193,692	236,102	54,949
Central Plateau Remediation	660,358	654,800	498,335
18-D-404 Modification of Waste Encapsulation and Storage Facility	1,000	11,000	0
Construction - Richland	1,000	11,000	0
Richland	855,050	901,902	553,284
Safeguards and Security - Defense Environmental Cleanup	86,686	86,778	96,300
Defense Environmental Cleanup Programs	941,736	988,680	649,584
Fast Flux Test Reactor Facility (WA)	2,240	2,500	2,500
Non-Defense Environmental Cleanup Programs	2,240	2,500	2,500
Total Hanford Site	943,976	991,180	652,084

# DEPARTMENT OF ENERGY Laboratory Table Idaho National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2019 FY 2020	FY 2019 FY 2020	FY 2019 FY 2020 FY 202	FY 2021
	Enacted	Enacted	Request Detail		
Idaho National Laboratory					
Stockpile Sustainment	200	200	200		
Production Operations	0	75	(		
Stockpile Management	200	275	200		
Tritium and Domestic Uranium Enrichment	2,198	2,114	1,90		
Production Modernization	2,198	2,114	1,90		
Safety and Environmental Operations	0	1,476	40		
Operating	0	1,476	40		
Infrastructure and Operations	0	1,476	40		
Weapons Activities Programs	2,398	3,865	2,50		
International Nuclear Security	3,872	3,668	4,17		
Domestic Radiological Security	10,194	12,333	8,47		
International Radiological Security	836	418	38		
Global Material Security	14,902	16,419	13,03		
Conversion (formerly HEU Reactor Conversion)	0	42,600	45,60		
Nuclear Material Removal	7,745	10,000	10,70		
Material Management and Minimization	7,745	52,600	56,30		
Nonproliferation & Arms Control	2,603	3,781	3,74		
Proliferation Detection R&D	7,102	5,034	4,95		
Nonproliferation Fuels Development	38,394	5,900			
Nonproliferation Stewardship Program	0	0	3,78		
Defense Nuclear Nonproliferation R&D	45,496	10,934	8,73		
Counterterrorism and Counterproliferation	4,609	4,747	4,89		
Nuclear Counterterrorism & Incident Response	4,609	4,747	4,89		
Defense Nuclear Nonproliferation Programs	75,355	88,481	86,70		
Naval Reactors Development	97,776	102,114	101,80		
S8G Prototype Refueling	0	786	73		
Naval Reactors Operations and Infrastructure	163,554	144,103	163,80		
14-D-901 Spent Fuel Handling Recapitalization Project, NRF	267,275	221,642	314,37		
Construction - Naval Reactors	267,275	221,642	314,37		
Naval Reactors Programs	528,605	468,645	580,72		
Research - Advanced Scientific Computing Research	70	70	7		
Advanced Scientific Computing Research	70	70	7		
Research - Basic Energy Sciences	4,592	3,723	3,72		
Basic Energy Sciences	4,592	3,723	3,72		
Research - Fusion Energy Sciences	5,510	2,500	2,50		
Fusion Energy Sciences	5,510	2,500	2,50		
Workforce Development for Teachers & Scientists	384	0			
Science Programs	10,556	6,293	6,29		
Bioenergy Technologies	16,627	16,371	3,95		
Federal Energy Management Program	457	181	15		
Vehicle Technologies	10,500	9,800	4,90		
Geothermal Technologies	2,175	25	2		
Water Power Technologies	1,301	834	57		
Wind Energy Technologies	159	1,166	48		
Hydrogen and Fuel Cells Technologies	5,442	6,591	1,20		
Energy Efficiency and Renewable Energy Programs	36,661	34,968	11,28		
Transmission Reliability and Resilience	1,221	750	750		
Resilient Distribution Systems	250	900	900		

#### DEPARTMENT OF ENERGY Laboratory Table Idaho National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019 FY 2020	FY 2019 FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Energy Storage Research	38	0	0
Energy Storage	38	0	0
Transformer Resilience and Advanced Components	861	300	300
Program Direction - Electricity	7	0	0
Electricity Programs	2,376	1,950	1,950
Cybersecurity for Energy Delivery Systems	13,000	3,000	3,539
Infrastructure Security and Energy Restoration	250	7,000	8,258
Cybersecurity, Energy Security, and Emergency Response Programs	13,250	10,000	11,797
Carbon Capture Utilization and Storage	0	130	73
Advanced Energy Systems	0	434	931
Advanced Coal Energy Systems & CCUS	0	564	1,004
Fossil Energy	0	564	1,004
Crosscutting Technology Development	15,360	14,875	10,500
Energy Innovation Hub for Modeling and Simulation	3,118	0	0
Nuclear Science User Facilities	34,483	24,643	23,270
NEAMS Joint Modeling and Simulation Program	10,005	0	0
Transformational Challenge Reactor	0	950	950
Joint Modeling and Simulation Program	0	9,488	9,000
Nuclear Energy Enabling Technologies	62,966	49,956	43,720
Light Water Reactor Sustainability	18,895	18,785	15,000
Advanced Reactor Technologies	38,393	31,253	30,000
Versatile Advanced Test Reactor	57,763	44,120	0
Advanced SMR R&D	11,938	10,265	150
Reactors Concepts RD&D	126,989	104,423	45,150
National Reactor Innovation Center	0	19,500	9,750
Regulatory Development	0	6,625	3,300
Advanced Reactors Demonstration Program	0	26,125	13,050
Research Reactor Infrastructure	8,951	8,929	11,443
Radiological Facilities Management	8,951	8,929	11,443
INL Operations and Infrastructure	280,190	272,604	201,500
16-E-200 Sample Preparation Laboratory	30,000	25,450	18,000
Construction - Idaho Facilities Managment	30,000	25,450	18,000
Idaho Facilities Management	310,190	298,054	219,500
Safeguards and Security - Nuclear Energy	142,191	149,111	133,753
Idaho Sitewide Safeguards and Security	142,191	149,111	133,753
Program Direction - Nuclear Energy	1,109	2,039	1,294
Integrated University Program	0	6	0
International Nuclear Energy Cooperation	938	0	0
Mining, Conversion, and Transportation	0	900	450
Fuel Cycle Research and Development Mining and Conversion FCRD	0	900	450
Accident Tolerant Fuels	0	15,975	7,542
Triso Fuel and Graphite Qualification	0	20,081	22,850
Total Advanced Fuels	0	36,056	30,392
Fuel Cycle Research and Development	57,707	0	0
Fuel Cycle Laboratory R&D	0	6,489	187
Used Nuclear Fuel Disposition R&D	0	1,000	1,000
Integrated Waste Management System	0	200	0
Fuel Cycle Research and Development FCRD	57,707	44,645	32,029
Nuclear Energy Programs	711,041	683,288	499,939
Other Departmental Administration	825	155	155
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### DEPARTMENT OF ENERGY Laboratory Table Idaho National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Departmental Administration Programs	825	155	155
Environment, Health, Safety & Security	150	150	150
Environment, Health, Safety, and Security	150	150	150
Other Defense Activites Programs	150	150	150
Idaho Cleanup and Waste Disposition	420,000	430,000	257,554
Idaho Excess Facilities D&D	10,000	0	0
Idaho Community and Regulatory Support	3,200	3,500	2,400
Idaho National Laboratory (INL)	433,200	433,500	259,954
Defense Environmental Cleanup Programs	433,200	433,500	259,954
Small Sites - NDEC	10,000	12,800	11,000
Non-Defense Environmental Cleanup Programs	10,000	12,800	11,000
Total Idaho National Laboratory	1,824,417	1,744,659	1,473,460

### DEPARTMENT OF ENERGY Laboratory Table Idaho Operations Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
Idaho Operations Office	Enacted	Enacted	Request Detail
Crosscutting Technology Development	5,170	180	180
Energy Innovation Hub for Modeling and Simulation	90	0	0
Nuclear Science User Facilities	180	180	180
NEAMS Joint Modeling and Simulation Program	1,464	0	0
Joint Modeling and Simulation Program	0	7,000	9,000
Nuclear Energy Enabling Technologies	6,904	7,360	9,360
Light Water Reactor Sustainability	6,601	6,700	5,000
Advanced Reactor Technologies	21,286	2,830	12,000
Versatile Advanced Test Reactor	2,350	0	0
Advanced SMR R&D	50,200	78,430	8,850
Reactors Concepts RD&D	80,437	87,960	25,850
Demonstration 1	0	79,500	0
Demonstration 2	0	79,500	0
Risk Reduction for Future Demonstration	0	29,500	0
Advanced Reactors Demonstration Program	0	188,500	0
Research Reactor Infrastructure	42	42	42
Radiological Facilities Management	42	42	42
INL Operations and Infrastructure	7,215	6,360	6,000
Idaho Facilities Management	7,215	6,360	6,000
Safeguards and Security - Nuclear Energy	3,647	3,900	3,697
Idaho Sitewide Safeguards and Security	3,647	3,900	3,697
Program Direction - Nuclear Energy	30,864	31,424	30,546
Integrated University Program	5,000	4,978	0
International Nuclear Energy Cooperation	1,444	0	0
Materials Recovery and Waste Form Development (MRWFD)	0	20,072	8,029
Material recovery and waste form development	0	20,072	8,029
Accident Tolerant Fuels	0	50,898	19,000
Total Advanced Fuels	0	50,898	19,000
Fuel Cycle Research and Development	66,868	0	0
Used Nuclear Fuel Disposition R&D	0	6,000	6,000
Integrated Waste Management System	0	4,150	0
Fuel Cycle Research and Development FCRD	66,868	81,120	33,029
Nuclear Energy Programs	202,421	411,644	108,524
Other Departmental Administration	1,150	1,150	1,150
Strategic Partnership Projects	1,000	1,000	1,000
Departmental Administration Programs	2,150	2,150	2,150
Environment, Health, Safety & Security	400	400	400
Environment, Health, Safety, and Security	400	400	400
Other Defense Activites Programs	400	400	400
Program Direction - Defense Environmental Cleanup	7,619	7,356	7,580
Defense Environmental Cleanup Programs	7,619	7,356	7,580
Interim Storage & Nuclear Waste Fund Oversight	0	0	10,000
Interim Storage Programs	0	0	10,000
Total Idaho Operations Office	212,590	421,550	128,654

#### DEPARTMENT OF ENERGY Laboratory Table Kansas City National Security Complex (KCNSC) FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Kansas City National Security Complex (KCNSC)			
B61 Life Extension Program	180,900	252,228	276,000
W88 Alteration Program	111,375	150,357	115,809
W80-4 Life Extension Program	47,800	124,455	150,343
W87-1 Modification Program	2,000	3,000	35,000
W93	0	0	2,000
Stockpile Major Modernization	342,075	530,040	579,152
Stockpile Sustainment	121,657	112,008	129,386
Weapons Dismantlement and Disposition	500	630	500
Production Operations	67,550	85,487	92,340
Stockpile Management	531,782	728,165	801,378
Plutonium Modernization	3,356	7,446	7,993
Primary Capability Modernization	3,356	7,446	7,993
Non-Nuclear Capability Modernization	2,569	3,894	30,000
Production Modernization	5,925	11,340	37,993
Engineering and Integrated Assessments	2,161	4,375	5,026
Advanced Simulation and Computing	1,250	2,500	0
Weapons Technology and Manufacturing Maturation	16,020	16,288	25,000
Stockpile Research, Technology, and Engineering	19,431	23,163	30,026
Operations of Facilities	82,000	78,000	110,000
Safety and Environmental Operations	600	100	7,391
Maintenance and Repair of Facilities	29,000	24,000	34,000
Infrastructure and Safety	11,635	28,700	49,168
Capabilities Based Investments	2,931	18,046	13,000
Recapitalization	14,566	46,746	62,168
Operating	126,166	148,846	213,559
Infrastructure and Operations	126,166	148,846	213,559
STA Operations and Equipment	20,277	25,894	30,286
Secure Transportation Asset	20,277	25,894	30,286
Defense Nuclear Security (DNS)	12,692	12,946	13,973
Defense Nuclear Security	12,692	12,946	13,973
Information Technology and Cyber Security	7,217	7,217	7,217
Weapons Activities Programs	723,490	957,571	1,134,432
Material Disposition	2,550	775	100
Material Management and Minimization	2,550	775	100
Nonproliferation & Arms Control	2,354	2,686	2,661
Proliferation Detection R&D	275	0	0
Defense Nuclear Nonproliferation R&D	275	0	0
Counterterrorism and Counterproliferation	25,274	52,032	62,093
Nuclear Counterterrorism & Incident Response	25,274	52,032	62,093
Defense Nuclear Nonproliferation Programs	30,453	55,493	64,854
Environment, Health, Safety & Security	10	10	10
Environment, Health, Safety, and Security	10	10	10
Other Defense Activites Programs	10	10	10
Total Kansas City National Security Complex (KCNSC)	753,953	1,013,074	1,199,296

# DEPARTMENT OF ENERGY Laboratory Table Kansas City Site Office FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Kansas City Site Office			
Information Technology and Cyber Security	130	130	130
Weapons Activities Programs	130	130	130
Program Direction - National Nuclear Security Administration	7,472	7,457	7,503
Federal Salaries and Expenses Programs	7,472	7,457	7,503
Total Kansas City Site Office	7,602	7,587	7,633

# DEPARTMENT OF ENERGY Laboratory Table Knolls Atomic Power Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Knolls Atomic Power Laboratory	Endolog	Endotod	Request Dotain
Naval Reactors Development	203,163	181,043	222,505
Columbia-Class Reactor Systems Development	71,986	51,619	49,672
S8G Prototype Refueling	230,576	165,969	131,374
Naval Reactors Operations and Infrastructure	245,320	282,538	250,125
21-D-530 KL Steam and Condensate Upgrades	0	0	4,000
20-D-931, KL Fuel Development Laboratory	0	23,700	0
19-D-930 KS Overhead Piping	10,994	20,900	0
14-D-901 Spent Fuel Handling Recapitalization Project, NRF	5,966	4,949	4,164
Construction - Naval Reactors	16,960	49,549	8,164
Naval Reactors Programs	768,005	730,718	661,840
Total Knolls Atomic Power Laboratory	768,005	730,718	661,840

### DEPARTMENT OF ENERGY Laboratory Table Lawrence Berkeley National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Lawrence Berkeley National Laboratory			
Weapons Technology and Manufacturing Maturation	0	350	0
Stockpile Research, Technology, and Engineering	0	350	0
Information Technology and Cyber Security	650	650	650
Weapons Activities Programs	650	1,000	650
Nonproliferation & Arms Control	303	0	0
Proliferation Detection R&D	7,823	5,250	5,166
Defense Nuclear Nonproliferation R&D	7,823	5,250	5,166
Counterterrorism and Counterproliferation	430	443	456
Nuclear Counterterrorism & Incident Response	430	443	456
Defense Nuclear Nonproliferation Programs	8,556	5,693	5,622
Research - Advanced Scientific Computing Research	213,107	215,822	176,028
Advanced Scientific Computing Research	213,107	215,822	176,028
Research - Basic Energy Sciences	165,806	170,004	161,728
18-SC-12, Advanced Light Source Upgrade (ALS-U), LBNL	60,000	60,000	13,000
Construction - Basic Energy Sciences	60,000	60,000	13,000
Basic Energy Sciences	225,806	230,004	174,728
Biological & Environmental Research	161,607	162,828	122,887
Research - Fusion Energy Sciences	895	1,525	765
Fusion Energy Sciences	895	1,525	765
Research - High Energy Physics	82,427	68,664	52,868
High Energy Physics	82,427	68,664	52,868
Operations and Maintenance - Nuclear Physics	26,121	25,138	19,801
Nuclear Physics	26,121	25,138	19,801
Workforce Development for Teachers & Scientists	1,298	0	0
20-SC-72, Seismic and Safety Modernization, LBNL	0	10,000	10,000
20-SC-78, Linear Assets Modernization Project, LBNL (20-SC-80)	0	500	2,000
19-SC-74, BioEPIC, LBNL	5,000	15,000	6,000
Construction - Science Laboratories Infrastructure	5,000	25,500	18,000
Science Laboratories Infrastructure	5,000	25,500	18,000
Safeguards and Security - SC	7,155	7,175	7,175
Science Programs	723,416	736,656	572,252
Bioenergy Technologies	9,049	9,049	3,100
Building Technologies	31,718	44,784	8,400
State Energy Program Grants	357	875	0
Training and Technical Assistance	170	200	0
Weatherization and Intergovernmental Programs	527	1,075	0
Advanced Manufacturing	12,200	9,868	667
Federal Energy Management Program	4,685	4,020	600
Vehicle Technologies	14,500	13,500	4,250
Strategic Programs	2,750	2,050	1,000
Geothermal Technologies	11,492	4,130	775
Solar Energy Technologies	126	1,349	0
Wind Energy Technologies	1,675	1,674	1,063
Hydrogen and Fuel Cells Technologies	5,479	6,636	2,000
Energy Efficiency and Renewable Energy Programs	94,201	98,135	21,855
Transmission Reliability and Resilience	1,844	250	250
Resilient Distribution Systems	1,060	460	450

### DEPARTMENT OF ENERGY Laboratory Table Lawrence Berkeley National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Energy Storage	810	0	0
Transformer Resilience and Advanced Components	15	0	0
Transmission Permitting and Technical Assistance	743	1,330	1,330
Electricity Programs	4,472	2,040	2,030
Cybersecurity for Energy Delivery Systems	1,700	0	0
Cybersecurity, Energy Security, and Emergency Response Programs	1,700	0	0
Carbon Capture Utilization and Storage	2,281	3,402	1,921
Cross Cutting Research	2,400	81	108
Advanced Coal Energy Systems & CCUS	4,681	3,483	2,029
Unconventional Fossil Energy from Petroleum - Oil Technologies	1,672	1,672	618
Natural Gas Technologies Research	1,525	1,338	323
Fossil Energy	7,878	6,493	2,970
NEAMS Joint Modeling and Simulation Program	200	0	0
Joint Modeling and Simulation Program	0	200	200
Nuclear Energy Enabling Technologies	200	200	200
Program Direction - Nuclear Energy	120	0	0
Fuel Cycle Research and Development	2,808	0	0
Used Nuclear Fuel Disposition R&D	0	3,750	3,750
Fuel Cycle Research and Development FCRD	2,808	3,750	3,750
Nuclear Energy Programs	3,128	3,950	3,950
Other Departmental Administration	95	105	105
Strategic Partnership Projects	3,500	3,500	3,308
Departmental Administration Programs	3,595	3,605	3,413
Small Sites - NDEC	35,000	31,000	0
Non-Defense Environmental Cleanup Programs	35,000	31,000	0
Total Lawrence Berkeley National Laboratory	882,595	888,572	612,742

#### DEPARTMENT OF ENERGY Laboratory Table Lawrence Livermore National Laboratory FY 2021 (Dollars in Thousands)

FY 2019 FY 2020 FY 2021 Request Detail Enacted Enacted Lawrence Livermore National Laboratory B61 Life Extension Program 3,700 2,200 695 W88 Alteration Program 871 0 0 W80-4 Life Extension Program 163,064 176,637 189,941 W87-1 Modification Program 17,000 44,000 200,000 W93 0 0 4,000 Stockpile Major Modernization 184,635 222,837 394,636 Stockpile Sustainment 81,909 88,554 88,175 Weapons Dismantlement and Disposition 2,000 2.000 3.900 **Production Operations** 0 5,955 5,955 Stockpile Management 268,544 321,246 490,766 Plutonium Modernization 31,233 36,755 51,361 High Explosives & Energetics 6,856 8,068 11,000 Primary Capability Modernization 38,089 44,823 62,361 Secondary Capability Modernization 1,600 3,905 13,935 Tritium and Domestic Uranium Enrichment 0 37 47 Production Modernization 39,689 48,765 76,343 Assessment Science 118 265 146 528 181 481 Engineering and Integrated Assessments 53,754 74,143 91,450 Inertial Confinement Fusion 344,000 335,876 339,346 Advanced Simulation and Computing 288,442 178,024 185,721 Weapons Technology and Manufacturing Maturation 26,394 43,850 37,100 Academic Programs 2.000 2.000 1,000 Stockpile Research, Technology, and Engineering 730.134 890.839 828,401 Operations of Facilities 80,000 77,000 75,000 Safety and Environmental Operations 31,215 18,218 35.436 Maintenance and Repair of Facilities 24,000 16,000 36,000 Infrastructure and Safety 55,428 55,458 62,640 Capabilities Based Investments 13,790 17,662 30,430 Recapitalization 69.218 73.120 93.070 Operating 201,433 182,338 244,506 18-D-620, Exascale Computing Facility Modernization Project, LLNL 23,000 29,200 50,000 23,000 50,000 29,200 Programmatic 15-D-612, Emergency Operations Center, LLNL 0 5,000 27,000 Mission Enabling 0 5.000 27,000 I&O - Construction 23,000 55,000 56,200 Infrastructure and Operations 224,433 237,338 300,706 Defense Nuclear Security (DNS) 67,162 67,135 69.699 Defense Nuclear Security 67,162 67,135 69,699 Information Technology and Cyber Security 17,515 28,515 28,515 Weapons Activities Programs 1,347,477 1,593,838 1.794.430 International Nuclear Security 7,070 8,830 10,061 Domestic Radiological Security 1,032 0 0 International Radiological Security 3,926 4.716 4,383 Nuclear Smuggling Detection and Deterrence 4,911 4,491 4,512 Global Material Security 16,939 18,037 18,956 Nuclear Material Removal 0 0 34 Material Disposition 140 0 100 Material Management and Minimization 174 0 100

### DEPARTMENT OF ENERGY Laboratory Table Lawrence Livermore National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Nonproliferation & Arms Control	24,042	23,212	22,998
National Technical Nuclear Forensics R&D	0	0	10,099
Proliferation Detection R&D	45,660	47,150	35,882
Nuclear Detonation Detection	7,690	8,574	16,139
Nonproliferation Stewardship Program	0	750	1,000
Defense Nuclear Nonproliferation R&D	53,350	56,474	53,021
Emergency Operations	663	624	637
Counterterrorism and Counterproliferation	42,128	47,392	59,787
Nuclear Counterterrorism & Incident Response	42,791	48,016	60,424
Defense Nuclear Nonproliferation Programs	137,296	145,739	165,598
Research - Advanced Scientific Computing Research	5,531	2,472	1,724
Advanced Scientific Computing Research	5,531	2,472	1,724
Research - Basic Energy Sciences	1,804	2,948	2,948
Basic Energy Sciences	1,804	2,948	2,948
Biological & Environmental Research	31,587	29,558	18,036
Research - Fusion Energy Sciences	8,819	8,062	8,537
Fusion Energy Sciences	8,819	8,062	8,537
Research - High Energy Physics	2,315	3,750	3,445
High Energy Physics	2,315	3,750	3,445
Operations and Maintenance - Nuclear Physics	1,728	1,769	1,484
Nuclear Physics	1,728	1,769	1,484
Workforce Development for Teachers & Scientists	423	0	0
Science Programs	52,207	48,559	36,174
Bioenergy Technologies	707	700	150
Building Technologies	774	0	0
Advanced Manufacturing	5,200	5,200	4,000
Vehicle Technologies	3,800	3,800	1,000
Geothermal Technologies	1,475	25	25
Solar Energy Technologies	434	1,049	836
Wind Energy Technologies	771	1,327	546
Hydrogen and Fuel Cells Technologies	2,833	3,431	1,000
Energy Efficiency and Renewable Energy Programs	15,994	15,532	7,557
Transmission Reliability and Resilience	4,593	1,750	1,750
Resilient Distribution Systems	2,030	1,750	1,750
Energy Storage Research	663	0	0
Energy Storage	663	0	0
Electricity Programs	7,285	3,500	3,500
Cybersecurity for Energy Delivery Systems	2,400	2,600	3,067
Infrastructure Security and Energy Restoration	350	4,000	4,719
Cybersecurity, Energy Security, and Emergency Response Programs	2,750	6,600	7,786
Carbon Capture Utilization and Storage	475	2,242	1,266
Advanced Coal Energy Systems & CCUS	475	2,242	1,266
Unconventional Fossil Energy from Petroleum - Oil Technologies	1,000	1,000	370
Natural Gas Technologies Research	22	22	2
Fossil Energy	1,497	3,264	1,638
Crosscutting Technology Development	45	0	0
Energy Innovation Hub for Modeling and Simulation	248	0	0
Nuclear Science User Facilities	146	50	50
NEAMS Joint Modeling and Simulation Program	379	0	0
Joint Modeling and Simulation Program	0.0	100	100
	0	100	100

### DEPARTMENT OF ENERGY Laboratory Table Lawrence Livermore National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Nuclear Energy Enabling Technologies	818	150	150
Advanced Reactor Technologies	0	0	50
Reactors Concepts RD&D	0	0	50
Regulatory Development	0	75	50
Advanced Reactors Demonstration Program	0	75	50
Fuel Cycle Research and Development	583	0	0
Used Nuclear Fuel Disposition R&D	0	750	750
Fuel Cycle Research and Development FCRD	583	750	750
Nuclear Energy Programs	1,401	975	1,000
Other Departmental Administration	420	55	55
Departmental Administration Programs	420	55	55
Environment, Health, Safety & Security	3,050	3,050	3,050
Environment, Health, Safety, and Security	3,050	3,050	3,050
Other Defense Activites Programs	3,050	3,050	3,050
Lawrence Livermore National Laboratory (LLNL)	1,704	1,727	1,764
LLNL Excess Facilities D&D	25,000	65,000	0
NNSA Sites and Nevada Off-Sites	26,704	66,727	1,764
Defense Environmental Cleanup Programs	26,704	66,727	1,764
Total Lawrence Livermore National Laboratory	1,596,081	1,887,839	2,022,552

# DEPARTMENT OF ENERGY Laboratory Table Lexington Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Lexington Office			
Environment, Health, Safety & Security	200	200	200
Environment, Health, Safety, and Security	200	200	200
Other Defense Activites Programs	200	200	200
Total Lexington Office	200	200	200

### DEPARTMENT OF ENERGY Laboratory Table Livermore Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Livermore Site Office			
Program Direction - National Nuclear Security Administration	17,591	19,116	18,925
Federal Salaries and Expenses Programs	17,591	19,116	18,925
Advanced Reactor Technologies	50	50	0
Reactors Concepts RD&D	50	50	0
Nuclear Energy Programs	50	50	0
Total Livermore Site Office	17,641	19,166	18,925

### DEPARTMENT OF ENERGY Los Alamos National Laboratory FY 2021 (Dollars in Thousands)

	ГТ			
	FY 2019	FY 2020	FY 2021	
	Enacted	Enacted	Request Detail	
Los Alamos National Laboratory				
B61 Life Extension Program	84,170	73,000	65,500	
W76 Life Extension Program	30,000	0	0	
W76-2 Modification Program	1,367	0	0	
W88 Alteration Program	42,591	32,330	22,072	
W80-4 Life Extension Program	19,032	24,721	25,098	
W87-1 Modification Program	8,000	3,250	10,000	
W93	0	0	17,000	
Stockpile Major Modernization	185,160	133,301	139,670	
Stockpile Sustainment	147,409	153,202	182,423	
Weapons Dismantlement and Disposition	2,000	7,600	2,000	
Production Operations	39,493	47,235	47,358	
Stockpile Management	374,062	341,338	371,451	
Los Alamos Plutonium Operations	271,564	286,975	610,599	
21-D-512, Plutonium Pit Production Project, LANL	5,000	21,156	226,000	
Los Alamos Plutonium Modernization	276,564	308,131	836,599	
Plutonium Modernization	276,564	308,131	836,599	
High Explosives & Energetics	0	0	8,000	
Primary Capability Modernization	276,564	308,131	844,599	
Secondary Capability Modernization	10,333	7,598	2,122	
Tritium and Domestic Uranium Enrichment	0	230	47	
Production Modernization	286,897	315,959	846,768	
Assessment Science	146,385	200,339	361,383	
Engineering and Integrated Assessments	67,665	86,342	99,050	
Inertial Confinement Fusion	18,500	18,781	20,000	
Advanced Simulation and Computing	181,752	221,300	184,054	
Weapons Technology and Manufacturing Maturation	33,100	49,648	59,500	
Stockpile Research, Technology, and Engineering	447,402	576,410	723,987	
Operations of Facilities	227,000	231,000	310,000	
Safety and Environmental Operations	14,237	15,813	15,857	
Maintenance and Repair of Facilities	97,000	82,000	153,000	
Infrastructure and Safety	67,964	78,150	87,504	
Capabilities Based Investments	15,640	12,692	15,510	
Recapitalization	83,604	90,842	103,014	
Operating	421,841	419,655	581,871	
18-D-670, Exascale Class Computer Cooling Equipment, LANL	24,000	0	0	
15-D-302, TA-55 Reinvestment Project - Phase 3, LANL	0	0	30,000	
07-D-220-04, Transuranic Liquid Waste Facility, LANL	0	0	36,687	
04-D-125, Chemistry and Metallurgy Research Replacement Project, LANL	237,019	168,444	169,427	
Chemistry and Metallurgy Research Replacement (CMRR)	237,019	168,444	169,427	
Programmatic	261,019	168,444	236,114	
I&O - Construction	261,019	168,444	236,114	
Infrastructure and Operations	682,860	588,099	817,985	
Defense Nuclear Security (DNS)	112,475 112,475	112,430 112,430	129,518	
Defense Nuclear Security	112,475	112,430	129,518	
Information Technology and Cyber Security	17,760	17,760	17,760	
Weapons Activities Programs	1,921,456	1,951,996	2,907,469	
International Nuclear Security	3,608	4,594	5,230	
Domestic Radiological Security	31,563	23,935	16,445	

#### DEPARTMENT OF ENERGY Laboratory Table Los Alamos National Laboratory FY 2021 (Dollars in Thousands)

Instancional Residucing Security         Ensented         Research and Security         <		FY 2019	FY 2020	FY 2021
Nuclear Smagning Detection and Determinio9.6789.46819.033Global Material Security45.81830.0010.1670Nuclear Material Removal3209.007.052Material Information44.20060.6007.052Labotatory and Partnership Support1.46660.7567.052Labotatory and Partnership Support40.65660.7567.052Natorotifieration & Arma Control1.1631.0231.0073Natorotifieration & Arma Control60.0001.056Natorotifieration & Arma Control67.20060.5515.553Nuclear Determinism Determinism67.2060.6415.553Nuclear Determinism Determinism7.72067.437.050Nuclear Determinism Determinism67.337.0429.00Nuclear Determinism Resource43.05248.846.084Nuclear Constructorism and Construption43.05248.846.084Nuclear Constructorism Resource43.05248.932.0471Advanced Scientific Computing Research3.0562.0503.0471Advanced Scientific Computing Research3.0573.0422.058Bease Energy Steinores3.0473.0403.040Research - Nuclear Physics3.0473.0403.040Research - High Energy Physics3.0473.0403.040Nuclear Physics3.0473.0403.040Research - High Energy Physics3.0473.0403.040Research - High Energy Physics <t< td=""><td></td><td></td><td></td><td></td></t<>				
Glass Mourcel Securit Conversion46,81899,87792,811Nuclear Material Renoval000Material Departion44,00064,00070,002Material Departion11,1599,550Material Departion11,1599,550Material Management and Minicration44,00510,00310,005Putterinition Raterian Restance Forensics R&D0010,005Putterinition Detection67,20366,02566,01511,003Nuclear Detection Detection67,20366,02561,01411,003Nuclear Detection Detection77,20364,074370,009Nuclear Detection Detection74,03090,00370,003Detection Materian Detection11,03111,03411,030Detection Static Detection RD11,03111,03411,030Detection Static Detection RD11,03111,03111,031Detection Static Detection RD11,03111,03111,031Nuclear Nonproliferation Resourch30,26320,203131,040Nuclear Nonproliferation Resourch30,20320,203131,040Nuclear Nonproliferation Resourch30,30334,04034,040Nuclear Nonproliferation Resourch30,30731,04034,040Nuclear Nonproliferation Resourch30,30731,04034,040Nuclear Nonproliferation Resourch30,30734,04034,040Nuclear Nonproliferation Resourch30,30734,04030,000Resourch -	International Radiological Security	969	1,370	
Demession (server) HEU Reactor Conversion)0201,070Nuclear Material Remodel3.0070.082Laboratory and Partnership Support1.1459.050.0Material Management and Minimizaton48.08561.78588.00National Technica Nuclear Francesias RAD0013.085National Technica Nuclear Francesias RAD0.050.0535.551National Technica Nuclear Francesias RAD0.029.0709.070Nonpoliferation RAD56.02856.02836.55135.551Nuclear Detection RAD56.02860.05135.55136.0236.551Nonpoliferation Detection RAD57.300.00.09.0551Nonpoliferation Stewardith Program0.09.055136.0836.051Outer Nuclear Nation Programs28.55228.05091.457Detense Nuclear Norpoliferation Programs28.5522.0211Advanced Scientific Computing Research33.06730.02120.321Research - Advanced Scientific Computing Research33.06730.02120.321Research - Fusion Energy Sciences23.33727.42222.555Basic Energy Sciences33.06730.02130.02120.321Research - Fusion Energy Sciences33.06730.02130.021Research - Fusion Energy Sciences33.063.446.821Nuclear Physics3.6400.000.000.00Research - Fusion Energy Sciences3.0263.0400.00Nuclear Physic	Nuclear Smuggling Detection and Deterrence	9,678	9,468	9,513
Notear Material Removal305020Material Deposition48.0075.002Laboratory of Partmethy Support11.6595.002Meterial Management and Minimization48.66561.765National Technical Nuclear Forensics R&D00Proletation Detection R&D55.02336.674Nuclear Detection R&D57.23066.743Nuclear Detection R&D67.730Nuclear Detection R&D77.2030Nuclear Detection R&D113.831117.324Nuclear Detection R&D113.831117.324Deterase Nuclear Nonproletation Regions43.06243.543Nuclear Counterproletation Regions43.06243.543Nuclear Counterproletation Programs28.6522.001Auterar Counterproletation Regions23.33772.42225.658Defense Nuclear Nonprolitestion Programs23.33772.42225.658Babic Energy Solutions23.33772.42225.658Babic Energy Solutions23.643.6413.641Solutions Counter Computing Research3.6673.6413.641Nuclear Provintics3.6403.6413.641Nuclear Provintics3.6403.6413.641Nuclear Provintics3.6403.6413.641Nuclear Provintics3.6403.6413.641Nuclear Provintics3.6413.6413.642Nuclear Provintics3.6403.6413.642Nuclear Provintics3.6403.6413.	Global Material Security	45,818	39,367	32,461
Material Deposition         48,200         60,000         79,082           Laboratory and Partnership Support         1,145         60,000         60,000         60,000         60,000         60,000         60,000         60,000         60,000         70,000	Conversion (formerly HEU Reactor Conversion)	0	200	1,670
Laboratory and Partnership Support1,1455350Material Management and Maintzation48,665617,78581,003National Technical Arms Control17,10619,20316,003National Technical Nuclear Proemises R&D000Proditeration Detection RBD66,0256,51476,009Nonproliferation Evels Development67,72066,74376,009Nonproliferation Sewardship Programs000Outerest National Sewardship Programs43,66248,36461,804Nonproliferation RBD113,833117,324113,833117,324Outerest Programs and Controproliferation43,66248,36461,804Nuclear Counterterroism & Incident Response43,6622,8032,071Advanced Sentific Computing Research3,6652,2332,071Advanced Sentific Computing Research3,6652,3332,071Advanced Sentific Computing Research3,6652,3332,071Advanced Sentific Computing Research3,6673,0103,410Research Aradore Sentific Computing Research3,6673,0103,410Research Aradore Sentific Computing Research3,0673,0103,410Research Aradore Sentific Computing Research3,0673,0103,410Research Aradore Sentific Computing Research3,0673,0103,410Research Aradore Sentific Computing Research3,0673,0103,010Research Aradore Sentific Computing Research3,0673,010	Nuclear Material Removal	320	50	250
Laboratory and Partnership Support1.1459.350Material Management and Maninzation48,66561,72681,023Number Technical Nuclear Provensics RAD0013,084Proditerition Detection67266,74376,009Nuclear Detection673000Nonproliferation Searchity Program000116,003Nonproliferation Searchity Program00000Outeries RAD113,831117,324111,333117,324111,333Outeries Radia Nonproliferation RAD136,8622,8332,011136,863136,863Nonproliferation Radia38,6632,8332,021144,874146,863136,863Nonproliferation Programs36,6632,8332,021144,9732,026,9852,8332,021Advanced Sentific Computing Research36,6632,8332,021144,9732,026,9852,8332,021144,9732,026,9852,8332,021144,9732,026,9852,8332,021144,9732,026,9852,8332,021144,9732,026,9852,0332,0211,4462,0242,0241,4462,0242,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,0241,4462,646 <td< td=""><td>Material Disposition</td><td>48,200</td><td>60,600</td><td>79,082</td></td<>	Material Disposition	48,200	60,600	79,082
Metrial Management and Minimization48,66561,79581,002Nonpolitation A Ama Cottel17,70819,20110,073National Technics RAD66,02865,05835,569Nuclear Detextion RAD66,02866,73376,009Nonpolitation Detextion RAD67,23366,74376,009Nonpolitation Detextion RAD67,3300Nonpolitation Detextion RAD113,391117,324113,393Deterine Nuclear Nonpolitation Nonpolitat				0
Naporalieration & Arms Control17,70819,25919,279National Technical Nuclear Forencias RAD0013,889Proliferation Decision RAD66,22366,674376,009Norprolifieration Fuels Development67300Norprolifieration Seventship Program004,700Defense Nuclear Norprolifieration RAD113,831117,324116,309Countestrammin and Controprolifiantion Programs289,582248,304518,404Nuclear Counterterroritam & Incident Response43,06248,304518,404Nuclear Counterterroritam & Incident Response32,33727,42226,585Research - Ananced Scientific Computing Research32,6282,33327,42226,585Biological & Environment Response23,33727,42226,585Biological & Environment Response23,33727,42226,585Biological & Environment Research32,0243,4103,410Research - Haulin Energy Sciences3,0873,9103,410Research - Fusion Energy Sciences3,0873,9103,410Research - Hujin Energy Physics2,6402,0401,145Operations and Maintenance - Nuclear Physics3,6803,600Outroit Computing Research3,5103,6000Verkoro Development for Teachers & Scientists3,503,6000Science Physics3,6103,60000Science Physics3,6103,6000			61.785	81.002
National Tachnical Nuclear Forensics R&D0013.888Proliferation Detection RAD66.02850.58137.520Nuclear Overproliferation Fuels Development67.300Nanproliferation Fuels Development77.3000Defense Nuclear Norproliferation RAD11.33.31117.324116.309Counterproliferation RAD13.6264.54565.844Nuclear Counterproliferation RAD36.6226.56222.65Nuclear Counterproliferation Response36.662.3302.071Advanced Scientific Computing Research36.662.3332.071Advanced Scientific Computing Research36.662.3332.071Advanced Scientific Computing Research36.662.3332.071Research - Hasile Energy Sciences3.3673.274222.6565Basic Energy Sciences3.0673.3103.410Puein Energy Sciences3.0673.3103.410Research - Fusion Energy Sciences3.0673.9103.410Research - Fusion Energy Sciences3.0673.9103.410Nuclear Provincis3.663.6144.6821Nuclear Provincis3.663.6144.6821Nuclear Provincis3.663.600Science Programs7.4623.600Science Programs7.4623.663.60Nuclear Provincis3.663.600Science Programs7.4623.663.60Nuclear Provincis	_			
Protileration Detection R&D56.02850.81830.520Nucquirelization Fuels Development67.2366.74370.00Norprofileration Fuels Development67.3300Defense Nucquire Norprofileration R&D113.331117.324116.302Counterstroring and Counterprofileration RAD13.331117.32451.804Nuclear Counterstroring and Counterprofileration Programs269.582286.803314.457Research - Anored Scientific Computing Research3.6632.9302.011Advanced Scientific Computing Research3.6632.9302.011Advanced Scientific Computing Research3.6632.9302.011Advanced Scientific Computing Research3.6632.9302.011Research - Hajn Energy Sciences3.0673.0103.010Research - Hajn Energy Sciences3.0673.9103.410Fusion Energy Sciences3.0673.9103.410Research - Hajn Energy Projecis2.6402.0401.455Operations and Mainteranco - Nuclear Physics3.063.013.621Nuclear Physics3.023.0000Operations and Mainteranco - Nuclear Physics3.633.013.621Nuclear Physics3.023.00000Operations and Mainteranco - Nuclear Physics3.023.001.452Operations and Mainteranco - Nuclear Physics3.633.001.452Operations and Mainteranco - Nuclear Physics3.00000<				
Nuclear Detonation Detection57.23066.74376.009Nonproliferation Fuels Development67300Detense Nuclear Nonproliferation R&D113.331117.324116.309Detense Nuclear Nonproliferation R&D13.931117.32416.309Counterproliferation Reponse43.06244.83461.004Detense Nuclear Nonproliferation Programs260.582286.08021.447Research - Advanced Scientific Computing Research3.6262.9302.071Advanced Scientific Computing Research3.6262.9302.071Advanced Scientific Computing Research3.6262.9302.071Research - Basic Energy Sciences23.33727.42226.685Basic Energy Sciences23.03727.42226.685Basic Energy Sciences3.0873.9103.410Fusion Energy Sciences3.0873.9103.410Fusion Energy Sciences3.0873.9103.410Fusion Energy Sciences3.6492.6401.455Operations and Maintenance - Nuclear Physics2.6402.0401.455Operations and Maintenance - Nuclear Physics3.60000Science Programs7.4213.6203.000Science Programs15.611.5243.6000Operations and Maintenance - Nuclear Physics3.744.5213.000Veldici Technologies7.4213.02000Science Programs15.611.5323.0000 <td< td=""><td></td><td></td><td></td><td></td></td<>				
Nonproliferation Fuels Development         673         0         0           Nonproliferation Stewardship Program         0         0         4.780           Defense Nuclear Nonproliferation RAD         113.302         443.364         51.804           Nuclear Counterproliferation RAD         43.062         443.354         51.804           Nuclear Counterproliferation Rapprotect         263.062         248.354         51.804           Defense Nuclear Norproliferation Programs         268.52         228.008         314.457           Research - Maxineed Scientific Computing Research         3.626         2.930         2.011           Advanced Scientific Computing Research         3.237         27.422         26.865           Biological & Environmental Research         3.203         30.201         3.010         3.010           Research - Nation Energy Sciences         3.203         30.201         3.010         3.010           Fusion Energy Sciences         3.807         3.910         3.010         3.010           Fusion Energy Sciences         3.807         3.910         3.010         3.010           Fusion Energy Sciences         3.800         6.314         6.821         3.203           Fusion Energy Sciences         3.800         6.314				
Nonproliferation Siewardship Program         0         0         0           Defense Nuclear Nonproliferation R&D         113.931         117.324         116.309           Countenterrorism and Counterproliferation Programs         43.062         48.354         51.804           Nuclear Countenterrorism & Incident Response         43.062         48.354         51.804           Nuclear Nonproliferation Programs         26.9582         26.060         32.071           Research - Ankone Scientific Computing Research         3.628         2.033         2.071           Advanced Scientific Computing Research         3.628         2.033         2.021           Research - Fusion Energy Sciences         23.337         27.422         26.685           Biological & Environmental Research         30.067         3.910         3.410           Pusion Energy Sciences         3.067         3.910         3.410           Research - High Energy Physics         2.640         2.040         1.145           Operations and Maintenance - Nuclear Physics         3.680         8.314         8.821           Nuclear Physics         3.60         3.60         3.60         3.60           Operations and Maintenance - Nuclear Physics         3.60         3.60         3.60         3.60         3.60<				
Detense Nuclear Nonproliferation         113,031         117,242         116,090           Counterterrorism and Counterproliferation         43,062         48,354         51,804           Nuclear Counterproliferation         43,062         48,354         51,804           Defense Nuclear Nonproliferation Programs         28,852         286,000         314,457           Research - Advanced Scientific Computing Research         3,626         2,930         2,071           Advanced Scientific Computing Research         3,627         27,422         26,655           Biological & Environmental Research         3,203         3,27,422         26,655           Biological & Environmental Research         3,203         3,274         26,655           Biological & Environmental Research         3,087         3,910         3,410           Fusion Energy Sciences         3,087         3,910         3,410           Research - High Energy Physics         2,640         2,040         1,145           Upich Energy Physics         2,640         2,640         1,145           Upich Energy Physics         3,360         8,314         8,821           Nuclear Physics         3,360         6,314         8,821           Nuclear Physics         3,264         2,000				
Counterterrorism and Counterprolileration         43,062         48,354         51,804           Nuclear Counterterrorism & Incident Response         43,062         246,054         51,804           Defenses Nuclear Norproliferation & Incident Response         3,626         2,930         2,071           Advanced Scientific Computing Research         3,237         27,422         26,685           Basic Energy Sciences         2,337         27,422         26,685           Basic Energy Sciences         3,087         3,910         3,410           Fusion Energy Sciences         3,087         3,910         3,410           Fusion Energy Sciences         3,087         3,910         3,416           Operations and Maintenance - Nuclear Physics         2,640         2,040         1,145           Operations and Maintenance - Nuclear Physics         3,500         8,314         8,821           Nuclear Physics         3,260         3,610         4,623         3,600           Science Programs				
Nuclear Countentenronism & Incident Response         43,062         44,354         51,804           Defense Nuclear Nonproliferation Programs         269,682         26,000         314,457           Research - Advanced Scientific Computing Research         3,626         2,030         2,071           Advanced Scientific Computing Research         3,627         2,233         27,422         26,585           Basic Energy Sciences         23,337         27,422         26,585           Basic Energy Sciences         3,067         3,010         3,410           Fusion Energy Sciences         3,067         3,910         3,410           Science Programs         2,640         2,040         1,145           Mortorize Scientific Tomauting Research         3,930         6,931         6,931				
Defense Nuclear Nonproliferation Programs289,582286,080314.457Research - Advanced Scientific Computing Research3,6262,9302,071Advanced Scientific Computing Research3,6262,93327,42226,685Basic Energy Sciences23,33727,42226,685Basic Energy Sciences23,33727,42226,685Basic Energy Sciences3,0873,9103,410Fusion Energy Sciences3,0873,9103,410Fusion Energy Sciences3,0873,9103,410Fusion Energy Sciences3,0873,9103,410Fusion Energy Sciences3,0873,9103,410Fusion Energy Sciences3,0873,9103,410Fusion Energy Sciences3,0873,9103,410Science Programs2,6402,0401,145Operations and Maintenance - Nuclear Physics9,5608,3148,821Nuclear Physics3,9308,3148,821Nuclear Physics3,9306,0148,821Nuclear Physics3,9306,0148,831Science Programs7,4227,4221,933Science Programs3,5017,4222,533Biosargy Technologies7,4227,4233,930Vinicie Technologies3,7002,0002,000Geothermal Technologies5,7416,6541,000Energy Technologies3,7002,0002,000Resilient Distrution Systems1,0003,0000 <tr< td=""><td></td><td></td><td></td><td></td></tr<>				
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Advanced Scientific Computing Research         3.626         2.930         2.0711           Research - Basic Energy Sciences         23.337         27.422         26.685           Basic Energy Sciences         23.337         27.422         26.685           Basic Energy Sciences         3.087         3.910         3.410           Fusion Energy Sciences         3.087         3.910         3.410           Research - High Energy Physics         2.640         2.040         1.145           High Energy Physics         9.360         3.314         8.821           Nuclear Physics         9.360         0         0           Science Programs         74.616         74.907         62.333           Bioenergy Technologies         7.422         7.422         1.950           Vehicle Technologies         7.423         7.423         3.00           Intergy Efficiency and Renewable Energy Programs         1.610         0         0				
Research - Basic Energy Sciences         23,337         27,422         26,655           Basic Energy Sciences         23,337         27,422         26,655           Biological & Environmental Research         30,807         30,001         34,410           Research - High Energy Physics         3,067         3,910         34,410           Research - High Energy Physics         2,640         2,040         1,145           High Energy Physics         3,800         8,314         8,821           Nuclear Physics         7,422         7,422         1,950           Science Programs         7,422         7,423         1,950           Vehicle Technologies         7,421         1,950         1,00         0           Genergy Technologies         7,421         1,950         2,00         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000         2,000 <td></td> <td></td> <td></td> <td></td>				
Basic Energy Sciences         23,337         27,422         26,585           Biological & Environmental Research         32,034         30,291         20,321           Research - Fusion Energy Sciences         3,087         3,910         3,410           Research - High Energy Physics         2,640         2,040         1,145           High Energy Physics         2,640         2,040         1,145           Operations and Maintenance - Nuclear Physics         3,360         8,314         8,821           Nuclear Physics         3,360         8,314         8,821           Nuclear Physics         3,360         8,314         8,821           Verklorce Development for Teachers & Scientists         532         0         0           Science Programs         7,4,616         74,907         62,333           Bioenergy Technologies         3,50         6,00         0         0           Geothermal Technologies         3,50         6,00         0         0           Hydrogen and Fuel Cells Technologies         3,700         2,000         2,000           Hydrogen and Fuel Cells Technologies         3,700         2,000         2,000           Intersty Technologies         3,700         2,000         2,000         2,000				
Biological Environmental Research         32,034         30,291         20,321           Research - Fusion Energy Sciences         3,067         3,910         3,410           Fusion Energy Sciences         3,087         3,910         3,410           Research - High Energy Physics         2,640         2,040         1,145           Operations and Maintenance - Nuclear Physics         9,360         8,314         8,821           Nuclear Physics         9,360         8,314         8,821           Nuclear Physics         9,360         8,314         8,821           Nuclear Physics         5,32         0         0           Science Programs         7,416         7,4,907         62,333           Bioenergy Technologies         7,422         7,422         1,950           Vehicle Technologies         7,412         7,452         2,65           Wind Energy Technologies         2,14         3,000         0           Geothermal Technologies         5,741         6,954         1,500           Energy Efficiency and Renewable Energy Programs         15,161         15,354         3,475           Transmission Reliability and Resilience         3,700         2,000         2,449           Cybersecurity for Energy Petroparans				
Research - Fusion Energy Sciences3,0073,9103,410Fusion Energy Sciences3,0873,9103,410Research - High Energy Physics2,6402,0401,145Operations and Maintenance - Nuclear Physics9,3608,3148,821Nuclear Physics7,4227,4221,950Science Programs7,46167,490762,363Bioenergy Technologies7,4227,4221,950Vehicle Technologies7,4216,8541,500Hydrogen and Fuel Cells Technologies5,7416,8541,500Energy Efficiency and Renewable Energy Programs15,16115,3543,475Transmission Reliability and Resilence3,7002,0002,500Neargy Efficiency and Renergy Restoration5002,5002,949Cybersecurity for Energy Delivery Systems1,5002,5002,949Cybersecurity for Energy Sectoration3,2953,4741,962Cubersey Euchnologies Research1,2073,2953,47				
Fusion Energy Sciences         3.087         3.910         3.410           Research - High Energy Physics         2.640         2.040         1.145           High Energy Physics         2.640         2.040         1.145           Operations and Maintenance - Nuclear Physics         9.360         8.314         8.821           Nuclear Physics         9.360         6.314         8.821           Workforce Development for Teachers & Scientists         532         0         0           Science Programs         74,616         74,907         62,353           Bioenergy Technologies         7,422         7,422         1,950           Vehicle Technologies         7,422         353         0           Geothermal Technologies         1,436         2,52         10           Hirdragen and Fuel Cells Technologies         2,12         353         0           Hirdragen and Fuel Cells Technologies         3,700         2,049         2,	-			
Research         2.640         2.040         1.145           High Energy Physics         2.640         2.040         1.145           Operations and Maintenance - Nuclear Physics         9.360         8.314         8.821           Science Programs         74.616         74.907         62.353           Bioenergy Technologies         7.422         7.422         1.950           Vehicle Technologies         3.50         600         0           Genthermal Technologies         1.436         2.55         2.55           Wind Energy Technologies         2.741         6.954         1.500           Hydrogen and Fuel Cells Technologies         3.700         2.000         2.000           Resilient Distribution Systems         15.161         15.354         3.475           Transmission Reliability and Resilience         3.700         2.000         2.044           Operations Programs         15.01         1.020         2.949           Cybersecurity for Energy Delivery Systems         1.000         0				
High Energy Physics         2.640         2.040         1.145           Operations and Maintenance - Nuclear Physics         9,360         8,314         8,821           Nuclear Physics         9,360         8,314         8,821           Workforce Development for Teachers & Scientists         532         0         0           Science Programs         74,616         74,907         62,353           Bidenergy Technologies         7,422         7,422         1,950           Vehicle Technologies         350         600         0           Geothermal Technologies         1,436         2.5         25           Wind Energy Technologies         2,12         353         0           Hydrogen and Fuel Cells Technologies         5,741         6,954         1,500           Energy Efficiency and Renewable Energy Programs         15,161         15,334         3,470           Transmission Reliability and Resilience         3,700         2,000         2,940           Cybersecurity for Energy Delivery Systems         10,000         0         0           Infrastructure Security and Energy Restoration         5,000         2,949         2,949           Cybersecurity. Inergy Security, and Emergency Response Programs         1,500         2,949         2,949				
Operations and Maintenance - Nuclear Physics         9,360         8,314         8,821           Nuclear Physics         9,360         8,314         8,821           Nuclear Physics         9,360         8,314         8,821           Workforce Development for Teachers & Scientists         532         0         0           Science Programs         74,616         74,907         62,353           Bioenergy Technologies         7,422         7,422         1,950           Vehicle Technologies         350         600         0           Geothermal Technologies         1,436         225         25           Wind Energy Technologies         2,12         353         0           Hydrogen and Fuel Cells Technologies         5,741         6,954         1,500           Energy Efficiency and Renewable Energy Programs         15,161         15,354         3,475           Transmission Reliability and Resilience         3,700         2,000         2,000           Resilient Distribution Systems         1,000         0         0         0           Infrastructure Security and Energy Response Programs         1,500         2,949         2,949         2,949         2,949         2,949         2,949         2,949         2,949         2,94				
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Vehicle Technologies         350         600         0           Geothermal Technologies         1,436         25         25           Wind Energy Technologies         212         353         0           Hydrogen and Fuel Cells Technologies         5,741         6,954         1,500           Energy Efficiency and Renewable Energy Programs         15,161         15,354         3,475           Transmission Reliability and Resilience         3,700         2,000         2,000           Resilient Distribution Systems         912         1,273         1,200           Electricity Programs         4,612         3,273         3,200           Cybersecurity for Energy Delivery Systems         1,000         0         0           Infrastructure Security and Energency Response Programs         1,500         2,500         2,949           Cybersecurity, Energy Systems & CCUS         3,295         3,474         1,962           Advanced Coal Energy Systems & CCUS         3,295         3,474         1,962           Unconventional Fossil Energy from Petroleum - Oil Technologies         1,279         1,279         473           Natural Gas Technologies Research         1,000         84         298           Fossil Energy         5,674         5,673 <t< td=""><td>-</td><td></td><td></td><td></td></t<>	-			
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Crosscutting Technology Development1,00000Energy Innovation Hub for Modeling and Simulation61500	-			
Energy Innovation Hub for Modeling and Simulation     615     0     0				
Page 45/12	Energy Innovation Hub for Modeling and Simulation	615	0	

### DEPARTMENT OF ENERGY Laboratory Table Los Alamos National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Nuclear Science User Facilities	0	50	50
NEAMS Joint Modeling and Simulation Program	2,853	0	0
Joint Modeling and Simulation Program	0	2,628	2,600
Nuclear Energy Enabling Technologies	4,468	2,678	2,650
Advanced Reactor Technologies	4,862	4,260	4,000
Versatile Advanced Test Reactor	260	2,000	0
Reactors Concepts RD&D	5,122	6,260	4,000
Accident Tolerant Fuels	0	3,582	1,000
Total Advanced Fuels	0	3,582	1,000
Fuel Cycle Research and Development	12,335	0	0
Fuel Cycle Laboratory R&D	0	2,600	1,000
Used Nuclear Fuel Disposition R&D	0	3,500	3,000
Fuel Cycle Research and Development FCRD	12,335	9,682	5,000
Nuclear Energy Programs	21,925	18,620	11,650
Other Departmental Administration	65	55	55
Departmental Administration Programs	65	55	55
Environment, Health, Safety & Security	95	95	95
Environment, Health, Safety, and Security	95	95	95
Other Defense Activites Programs	95	95	95
Los Alamos National Laboratory (LANL)	220,000	220,000	120,000
NNSA Sites and Nevada Off-Sites	220,000	220,000	120,000
Defense Environmental Cleanup Programs	220,000	220,000	120,000
Total Los Alamos National Laboratory	2,534,686	2,578,527	3,428,436

### DEPARTMENT OF ENERGY Laboratory Table Los Alamos Site Office FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Los Alamos Site Office			
Information Technology and Cyber Security	51	51	51
Weapons Activities Programs	51	51	51
Program Direction - National Nuclear Security Administration	15,648	17,313	17,689
Federal Salaries and Expenses Programs	15,648	17,313	17,689
Total Los Alamos Site Office	15,699	17,364	17,740

# DEPARTMENT OF ENERGY Laboratory Table Miamisburg Site FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Miamisburg Site			
Environment, Health, Safety & Security	5	5	5
Environment, Health, Safety, and Security	5	5	5
Other Defense Activites Programs	5	5	5
Total Miamisburg Site	5	5	5

#### DEPARTMENT OF ENERGY Laboratory Table Moab Site FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Moab Site			
Small Sites - NDEC	45,000	45,000	47,653
Non-Defense Environmental Cleanup Programs	45,000	45,000	47,653
Total Moab Site	45,000	45,000	47,653

#### DEPARTMENT OF ENERGY Laboratory Table Mound Site FY 2021 (Dollars in Thousands)

FY 2019 FY 2020 FY 2021 Enacted Request Detail Enacted Mound Site Legacy Management Activities - Defense 14,346 15,297 12,738 14,346 15,297 12,738 Legacy Management Other Defense Activites Programs 14,346 15,297 12,738 Total Mound Site 12,738 14,346 15,297

# DEPARTMENT OF ENERGY Laboratory Table National Energy Technology Lab FY 2021 (Dollars in Thousands)

	<b>-</b> /		
	FY 2019	FY 2020	FY 2021
National Frances Technology Lab	Enacted	Enacted	Request Detail
National Energy Technology Lab	5 000	5 400	
B61 Life Extension Program	5,000	5,130	6,000
W76 Life Extension Program	610	0	0
W76-2 Modification Program	0	2,528	0
W88 Alteration Program	7,282	2,218	6,921
W80-4 Life Extension Program	0	8,196	10,746
W87-1 Modification Program	1,910	2,178	30,270
Stockpile Major Modernization	14,802	20,250	53,937
Stockpile Sustainment	1,944	9,178	491
Production Operations	0	2,065	0
Stockpile Management	16,746	31,493	54,428
Plutonium Modernization	555	2,322	2,000
Primary Capability Modernization	555	2,322	2,000
Secondary Capability Modernization	382	471	1,350
Tritium and Domestic Uranium Enrichment	763	2,725	3,734
Production Modernization	1,700	5,518	7,084
Engineering and Integrated Assessments	265	1,893	0
Weapons Technology and Manufacturing Maturation	843	3,295	0
Stockpile Research, Technology, and Engineering	1,108	5,188	0
Capabilities Based Investments	0	300	0
Recapitalization	0	300	0
Operating	0	300	0
Infrastructure and Operations	0	300	0
Weapons Activities Programs	19,554	42,499	61,512
Material Disposition	0	750	0
Material Management and Minimization	0	750	0
Defense Nuclear Nonproliferation Programs	0	750	0
Program Direction - National Nuclear Security Administration	113	113	113
Federal Salaries and Expenses Programs	113	113	113
Bioenergy Technologies	311	505	150
Building Technologies	17,750	53,500	0
Program Direction - Energy Efficiency and Renewable Energy	11,345	10,928	0
Vehicle Technologies	128,000	185,100	6,500
Geothermal Technologies	30,000	30,000	0
Hydrogen and Fuel Cells Technologies	20	24	0
Energy Efficiency and Renewable Energy Programs	187,426	280,057	6,650
Transformer Resilience and Advanced Components	25	2,500	4,500
Program Direction - Electricity	2,266	2,983	3,118
Electricity Programs	2,291	5,483	7,618
Cybersecurity for Energy Delivery Systems	32,070	50,900	60,636
Infrastructure Security and Energy Restoration	1,400	5,250	6,193
Program Direction - CESER	2,984	2,802	3,305
Cybersecurity, Energy Security, and Emergency Response Programs	36,454	58,952	70,135
STEP Supercritical CO2	22,430	2,000	0
Transformational Coal Pilots	25,000	20,000	0
CCS and Power Systems	47,430	22,000	0
Carbon Capture Utilization and Storage	75,941	27,643	15,611
	61,052		
Advanced Energy Systems		34,331	73,674
Cross Cutting Research	33,435	11,415	15,200

# DEPARTMENT OF ENERGY Laboratory Table National Energy Technology Lab FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
NETL Coal Research and Development - Fossil Energy	36,000	38,000	36,000
Advanced Coal Energy Systems & CCUS	206,428	111,389	140,485
Program Direction - Fossil Energy	27,230	27,780	28,410
Unconventional Fossil Energy from Petroleum - Oil Technologies	38,489	38,489	14,224
Natural Gas Technologies Research	22,441	22,106	6,218
NETL Research and Operations - Fossil Energy	50,000	50,000	46,000
NETL Infrastructure - Fossil Energy	45,000	50,000	43,100
Strategic Petroleum Reserve Management	446	466	488
Fossil Energy	437,464	322,230	278,925
Crosscutting Technology Development	55	0	C
Nuclear Energy Enabling Technologies	55	0	C
Program Direction - Nuclear Energy	26	0	C
International Nuclear Energy Cooperation	100	0	C
Nuclear Energy Programs	181	0	C
Other Departmental Administration	50	0	C
Strategic Partnership Projects	150	150	150
Departmental Administration Programs	200	150	150
Legacy Management Activities - Defense	2,421	2,464	2,403
Legacy Management	2,421	2,464	2,403
Other Defense Activites Programs	2,421	2,464	2,403
Loan Guarantee Program	82	150	C
Title XVII Loan Guarantee Programs	82	150	C
otal National Energy Technology Lab	686,186	712,848	427,506

# DEPARTMENT OF ENERGY Laboratory Table National Renewable Energy Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
National Renewable Energy Laboratory			
Research - Basic Energy Sciences	12,600	12,109	12,109
Basic Energy Sciences	12,600	12,109	12,109
Biological & Environmental Research	827	848	877
Workforce Development for Teachers & Scientists	1,368	0	0
Science Programs	14,795	12,957	12,986
Bioenergy Technologies	53,577	50,577	16,205
Building Technologies	15,764	31,437	4,000
State Energy Program Grants	1,050	1,475	0
Training and Technical Assistance	0	850	0
Weatherization and Intergovernmental Programs	1,050	2,325	0
Advanced Manufacturing	1,825	4,000	0
Federal Energy Management Program	8,636	6,739	2,600
Vehicle Technologies	38,000	20,200	9,200
Strategic Programs	5,250	6,150	3,200
Facilities and Infrastructure - NREL	97,000	130,000	107,000
Geothermal Technologies	9,111	1,800	425
Solar Energy Technologies	45,479	122,416	27,478
Water Power Technologies	19,976	15,838	7,538
Wind Energy Technologies	33,694	30,000	10,947
Hydrogen and Fuel Cells Technologies	14,493	17,555	4,000
Energy Efficiency and Renewable Energy Programs	343,855	439,037	192,593
Transmission Reliability and Resilience	660	2,500	2,500
Resilient Distribution Systems	2,470	3,351	1,600
Energy Storage Research	127	0	0
Energy Storage	127	0	0
Transformer Resilience and Advanced Components	79	0	0
Transmission Permitting and Technical Assistance	85	280	280
Electricity Programs	3,421	6,131	4,380
Infrastructure Security and Energy Restoration	50	4,000	4,719
Cybersecurity, Energy Security, and Emergency Response Programs	50	4,000	4,719
Cross Cutting Research	0	172	229
Advanced Coal Energy Systems & CCUS	0	172	229
Fossil Energy	0	172	229
Program Direction - Nuclear Energy	0	100	0
Nuclear Energy Programs	0	100	0
Other Departmental Administration	1,455	1,378	1,378
Strategic Partnership Projects	500	500	500
Departmental Administration Programs	1,955	1,878	1,878
Total National Renewable Energy Laboratory	364,076	464,275	216,785

### DEPARTMENT OF ENERGY Laboratory Table Naval Petroleum Reserve No 1 FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Naval Petroleum Reserve No 1			
Program Direction - Naval Petroleum & Oil Shale Reserve	8,000	12,000	11,000
Fossil Energy	8,000	12,000	11,000
Total Naval Petroleum Reserve No 1	8,000	12,000	11,000

#### DEPARTMENT OF ENERGY Laboratory Table Naval Reactors Laboratory Field Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Naval Reactors Laboratory Field Office			
Program Direction - Naval Reactors	19,48	4 20,200	21,480
Naval Reactors Programs	19,48	4 20,200	21,480
Fuel Cycle Research and Development	709	9 0	0
Used Nuclear Fuel Disposition R&D		0 1,400	0
Fuel Cycle Research and Development FCRD	709	9 1,400	0
Nuclear Energy Programs	70	9 1,400	0
Total Naval Reactors Laboratory Field Office	20,19	3 21,600	21,480

# DEPARTMENT OF ENERGY Laboratory Table Naval Research Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Naval Research Laboratory			
Assessment Science	3,750	4,600	4,590
Inertial Confinement Fusion	6,500	6,000	4,000
Stockpile Research, Technology, and Engineering	10,250	10,600	8,590
Weapons Activities Programs	10,250	10,600	8,590
Total Naval Research Laboratory	10,250	10,600	8,590

### DEPARTMENT OF ENERGY Laboratory Table Nevada Field Office FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Nevada Field Office			
Engineering and Integrated Assessments	675	0	0
Weapons Technology and Manufacturing Maturation	675	0	0
Stockpile Research, Technology, and Engineering	1,350	0	0
Defense Nuclear Security (DNS)	80,559	80,527	84,537
Defense Nuclear Security	80,559	80,527	84,537
Information Technology and Cyber Security	79	79	79
Weapons Activities Programs	81,988	80,606	84,616
Program Direction - National Nuclear Security Administration	15,345	17,008	17,222
Federal Salaries and Expenses Programs	15,345	17,008	17,222
Program Direction - Nuclear Energy	2,116	1,731	1,914
Nuclear Energy Programs	2,116	1,731	1,914
Environment, Health, Safety & Security	15	15	15
Environment, Health, Safety, and Security	15	15	15
Other Defense Activites Programs	15	15	15
Program Direction - Defense Environmental Cleanup	3,881	2,818	2,814
Defense Environmental Cleanup Programs	3,881	2,818	2,814
Interim Storage & Nuclear Waste Fund Oversight	0	0	2,500
Interim Storage Programs	0	0	2,500
Total Nevada Field Office	103,345	102,178	109,081

### DEPARTMENT OF ENERGY Laboratory Table Nevada National Security Site FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Nevada National Security Site			
B61 Life Extension Program	0	500	0
Stockpile Major Modernization	0	500	0
Stockpile Sustainment	688	300	1,652
Stockpile Management	688	800	1,652
Plutonium Modernization	5,082	8,858	13,600
High Explosives & Energetics	337	2,242	900
Primary Capability Modernization	5,419	11,100	14,500
Tritium and Domestic Uranium Enrichment	78	75	153
Production Modernization	5,497	11,175	14,653
Assessment Science	53,099	88,225	99,438
Engineering and Integrated Assessments	15,105	13,761	7,600
Inertial Confinement Fusion	0	0	7,800
Stockpile Research, Technology, and Engineering	68,204	101,986	114,838
Operations of Facilities	95,000	102,000	105,000
Safety and Environmental Operations	6,107	4,535	4,513
Maintenance and Repair of Facilities	34,000	38,000	65,000
Infrastructure and Safety	35,400	42,626	45,790
Capabilities Based Investments	7,700	7,960	10,720
Recapitalization	43,100	50,586	56,510
Operating	178,207	195,121	231,023
17-D-640, U1a Complex Enhancements Project, NNSS	20,000	35,000	160,600
Programmatic	20,000	35,000	160,600
19-D-670, 138kV Power Transmission System Replacement, NNSS	0	6,000	59,000
Mission Enabling	0	6,000	59,000
I&O - Construction	20,000	41,000	219,600
Infrastructure and Operations	198,207	236,121	450,623
Information Technology and Cyber Security	6,622	6,622	6,622
Weapons Activities Programs	279,218	356,704	588,388
International Radiological Security	1,910	611	568
Global Material Security	1,910	611	568
Nonproliferation & Arms Control	359	12	12
National Technical Nuclear Forensics R&D	0	0	1,981
Proliferation Detection R&D	21,231	21,801	10,306
Nuclear Detonation Detection	620	593	11,327
Nonproliferation Stewardship Program	0	15,900	15,000
Defense Nuclear Nonproliferation R&D	21,851	38,294	36,633
Emergency Operations	19,631	21,450	21,609
Counterterrorism and Counterproliferation	36,542	37,638	39,144
Nuclear Counterterrorism & Incident Response	56,173	59,088	60,753
Defense Nuclear Nonproliferation Programs	80,293	98,005	99,947
Other Departmental Administration	0	25	25
Departmental Administration Programs	0	25	25
Nevada Test Site	55,396	55,996	55,672
NNSA Sites and Nevada Off-Sites	55,396	55,996	55,672
Defense Environmental Cleanup Programs	55,396	55,996	55,672
Total Nevada National Security Site	414,907	510,730	744,032

### DEPARTMENT OF ENERGY Laboratory Table Nevada Operations Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Nevada Operations Office			
Nevada Test Site	4,740	4,741	5,065
NNSA Sites and Nevada Off-Sites	4,740	4,741	5,065
Defense Environmental Cleanup Programs	4,740	4,741	5,065
Total Nevada Operations Office	4,740	4,741	5,065

### DEPARTMENT OF ENERGY Laboratory Table NNSA Albuquerque Complex FY 2021 (Dollars in Thousands)

Encircle         Encircle         Encircle         Regets Design           MDA Ablogueque Complex         10.0.413         100.400         115.860           W70 & Doddication Program         1.0.00         0.000         0.000           W70 & Doddication Program         22.0.200         27.000         0.000           W90 4 Line Extension Program         22.0.200         0.000         0.000           W91 4 Line Extension Program         20.0.200         0.000         0.000           W93 4 Morithication Program         10.0.000         1.011         0.000           W93 4 Morithication Program         10.0.000         1.011         0.000           W93 4 Morithication Program         20.200         0.0111         0.000           W93 5 Dickplie Morithication         10.0.000         1.0110         0.000           Stockplie Management         22.6198         2.0110         0.000           Prioroum Moderization         7.034         7.237         0.000           Production Moderization         7.034         7.237         0.000           Assessment Sounce         0.02,000         0.02,077         0.000           Assessment Sounce         0.02,000         0.02,000         0.000         0.000           Assesses		FY 2019	FY 2020	FY 2021
BIL dis Emerson Program         103.549         106.405           W762 Modiation Program         0         3.866         0.1           W762 Modiation Program         22.529         27.955         23.000           W60 J Line Extension Program         1.036         0.00         3.000           W63 J Line Extension Program         1.036         0.00         3.000           Stockplan Modernization         1.038         0.000         3.000           Velocino Extension Program         2.201.90         7.023         7.000           Stockplan Modernization         7.504         7.237         3.000           Phromary Capability Modernization         7.504         7.503         7.500           Stockplan Modernization         7.504         7.503         7.500         7.500           Stockplan Modernization         7.504         7.500         7.500         7.500         7.500         7.500         7.500         7.500         7.500         7.500         7.500         7.500				
W76 Lie Exansion Program1.8900W76 Lie Extension Program22.55323.005W36 Alteristic Brogram15.37142.472W37 Houtfaiton Program15.37142.472W37 Houtfaiton Program10.0600W37 Houtfaiton Program10.0600Stockple Major Modernization13.001.113Stockple Main Modernization13.001.113Stockple Statistististististististi22.81822.4700Plockuction Operations7.547.23738Stockple Management22.61822.4700107.02Plockuction Operations7.547.23738Stockple Management22.61822.4700107.02Plockuction Operations7.547.23738Stockple Management15.87172.3738Stockple Management15.87172.3738Stockple Management15.87172.3738Stockple Researce Management16.97144.8346.93Advanced Simulation and Computing7.537.73238.93Intral Confinement Fusion32.6703.0010Wespons Technology and Manufacturing Maturation32.6703.0010Management21.433.001.443.54Stockple Research Technology and Engineering32.6302.553.54Management Lippartie3.7302.653.543.54Management Lippartie3.753.7673.543.55Management Lippartie<	NNSA Albuquerque Complex		·	
W72 Modification Program03.66W84 Meteration Program22,5232,000W704 Modification Program10,3314,24,4788,100W74 Modification Program100,36034,44Stockplie Major Modernization100,369101,143177,660Stockplie Major Modernization100,309111,143117,260Stockplie Major Modernization12,26332,873101,103Production Objections22,819,80224,79,00101,103Stockplie Major Modernization7,5047,227360Primoury Capability Modernization7,5047,237360Primoury Capability Modernization7,5047,237360Primoury Capability Modernization115,877116,500116,500Primoury Capability Modernization12,577117,277148,181Assessment Science62,80069,27750,000Engeneering and Integrated Assessments115,877145,52310,000Iteratio Combinering710,27570,00010,000Metagons Enclosely and Mandrization22,57020,50010,000Stockplae Respect T, Echnology and Mandrization22,57315,65520,404Weapons Enclosely Enclose Complex Project71,65420,60010,000Metagons Enclosely Enclose Complex Project71,65420,60010,000Metagons Enclosely Enclose Project71,65420,60010,000Metagons Enclosely Enclose Project71,65420,60010,000Metagon	B61 Life Extension Program	103,543	106,405	115,865
W88 Alteration Program22,52927,86523,000W84 Holdschar Program15,137144,44735,100W83 Holdschar Program10,0003,441Stockplie May Modemization10,000111,113117,128Stockplie May Modemization13,000111,113117,128Production Cognations03,79610,100Stockplie Management226,198224,270116,702Production Cognations7,5047,237386Primay Capability Moderization7,5047,237386Primay Capability Moderization4,488650555Triflium and Density Unrime Environment115,877127,877144,518Assessment Science22,80064,82750,00050,000Engenering and Integrated Assessments13,267000Advanced Structuring Maturation32,670000Weispons Technology and Manufacturing Maturation22,67013,588559,51Stockplie Research, Technology, and Engineering221,41024,62026,92Stockplie Research, Technology, and Engineering221,410000Massesment Science73,0232,65715,548Infrastructure and Story7,6732,67714,647Stockplie Research, Technology, and Engineering221,41000Stockplie Research, Technology, and Engineering7,6732,65715,648Stockplie Research, Technology, and Engineering7,6732,657 <td< td=""><td>W76 Life Extension Program</td><td>1,890</td><td>0</td><td>0</td></td<>	W76 Life Extension Program	1,890	0	0
W80-4 Life Extension Program         51.371         42.447         35.10           W87-1 Modification Program         1,06         6.00         6.00           W83         0         0         3.44           Stockpile Major Modernization         180,369         161,163         177.86           Stockpile Sustainment         32.828         38.698         9.03           Weapons Dismantlement and Disposition         12.00         1.113         1.00           Production Operations         2.00         3.788         1.01.01           Stockpile Management         7.504         7.237         3.66           Photonium Modernization         7.504         7.237         3.66           Stockpile Management Science         62.890         69.277         7.00           Production Modernization         115.847         142.513         142.513           Assessments Science         37.302         48.677         2.50.00           Engineering and Integrand Assessments         37.302         48.677         2.50.00           Stockpile Management Fusion         3.03         2.65.91         3.50.90         3.50.90           Intrata Contransent Science         3.03         2.65.91         3.50.90         3.50.90         3.50.90	W76-2 Modification Program	0	3,866	0
W87-1 Modification Program         1.066         500         90         3.44           Stockpile Major Modernization         180.80         181.18         177.88           Stockpile Major Modernization         32.829         38.686         9.03           Weapons Dimenifement and Disposition         13.000         1.113         1           Production Operations         0         3.765         100.100           Stockpile Management         228.198         224.790         107.202           Prinary Capability Modernization         7.504         7.237         3.86           Secondary Capability Modernization         7.504         7.237         149.59           Assessment Science         62.800         68.1277         149.59           Assessment Science         62.800         68.232         69.00           Advanced Simulation and Computing         7.50         6         6.20.40           Advanced Simulation and Computing         7.50         7.55         1.56           Stockpile Management, Technology and Manafecturing Maturation         2.26.21         1.80.25           Stockpile Management, Technology and Manafecturing Maturation         2.26.21         1.80.25           Stockpile Management, Technology and Manafecturing Maturation         2.26.01	W88 Alteration Program	22,529	27,965	23,007
WB3         0         0         3 441           Stockpile Major Modernization         180,369         181,183         177,283           Stockpile Sustainment         32,829         38,689         92,072           Production Operations         0         3,786         10,100           Stockpile Management         220,192         224,780         107,020           Pitrus Craphility Modernization         7,504         7,237         388           Secontary Capability Modernization         7,504         7,237         148,87           Primay Craphility Modernization         112,887         116,503         116,877           Production Modernization         112,879         172,771         1449,18           Assessment Science         62,880         66,277         50,00           Engineering and Integrated Assessments         37,302         48,677         50,00           Inerial Continuon Enforment Fusion         15,971         45,503         146,953           Versepons Technology and Manufacturing Maturation         22,619         18,889         165,951           Stockpile Research, Technology, and Engineering         22,149         22,615         18,889           Stockpile Research, Technology, and Engineering         22,149         2,813         <	W80-4 Life Extension Program	51,371	42,447	35,102
Stockpile Major Modernization         180,389         181.183         177,88           Stockpile Sustainment         32,629         38,686         90.33           Weapors Distainment         32,000         3,766         10.101           Stockpile Management         226,198         224,790         177,203           Stockpile Management         7,564         7,237         386           Printonum Modernization         7,564         7,237         386           Secondary Capability Modernization         14,878         166.00         148.27           Production Modernization         127,879         172,787         149.18           Assessment Science         62,890         69,277         500           Engineering and Integrated Assessments         37,302         48,277         500           Weapons Technology and Manufacturing Maturation         32,670         82,620         46,492         45,631           Stockpile Research, Technology, and Engineering         21,480         22,650         16,4422         36,991           Stockpile Research, Technology, and Engineering         25,50         16,553         16,553         16,553           Stockpile Research, Technology, and Engineering         25,50         26,555         15,555         16,553 <t< td=""><td>W87-1 Modification Program</td><td>1,036</td><td>500</td><td>500</td></t<>	W87-1 Modification Program	1,036	500	500
Stockpile Sustainment         32,829         38,698         9.033           Weapons Dimanetement and Disposition         13,000         1,113         0.10           Stockpile Management         226,198         224,790         197,020           Pitrans Cognation         7,544         7,237         386           Pitrans Cognation         7,544         7,237         386           Secondary Capability Modernization         7,544         7,237         386           Secondary Capability Modernization         4,488         550         555           Tritum and Domesity Unalmit Enforment         117,577         17,277         149,18           Assessment Science         62,890         69,277         5,000           Assessment Science         62,890         69,277         5,000           Advanced Simulation and Computing         16,571         45,563         0         0           Meapons Technology and Manufacturing Maturation         32,670         82,612         138,893           Sately and Environmental Operations         533         256         153,893           Sately and Environmental Operations         7,633         0         0           Infrastructure and Sately         24,600         2,832         989	W93	0	0	3,410
Weapons Dismanifement and Disposition         1.1.000         1.1.13           Production Operations         0         3.786         10.100           Stockple Management         28.18         22.47.00         1197.02           Plutonium Moderrization         7.504         7.237         38           Seconds X, Capabiliy Moderrization         4.88         550         555           Tittum and Domesic Uranium Enrichment         115.887         165.000         149.2787           Production Moderrization         115.887         165.000         149.2787           Production Moderrization         16.971         45.563         149.2787           Inertial Confinement Fusion         16.971         45.563         149.2787           Advanced Simulation and Computing         70.00         22.670         82.69           Stockple Management Fusion         32.670         82.69         22.649           Stockple Research, Technology and Engineering         22.159         25.89         159.55           Stockple Research, Technology, and Engineering         24.600         2.823         169.55           Stockple Research, Technology, and Engineering         24.600         2.832         169.55           Massion Enabling         47.653         0         169.55	Stockpile Major Modernization	180,369	181,183	177,884
Production Operations         0         3,736         10,101           Stochpie Management         226,198         224,700         137,22           Putronum Modernization         7,504         7,237         368           Secondary Capability Modernization         7,504         7,237         368           Tittum and Domesito Urinum Enrichment         115,887         1165,000         1148,277           Production Modernization         127,879         172,737         149,181           Assessment Science         62,890         69,377         50,000           Engineering and Integrated Assessments         37,302         48,677         70,000           Response Urinum Enrichment         16,971         45,563         62,940           Advanced Simulation and Computing         70,000         62,690         62,940           Weapons Technology and Manufacturing Maturation         32,670         8,268         42,6593           Stockpile Research, Technology, and Engineering         24,600         2,832         998           Stockpile Research, Technology, and Engineering         24,600         2,832         998           Infrastructure and Salety         24,600         2,832         169           Infrastructure and Salety         7,953         7,677	Stockpile Sustainment	32,829	38,698	9,037
Stockpile Management         226,198         224,790         197,021           Pitnary Capability Modernization         7.504         7.237         366           Secondary Capability Modernization         4.488         6.500         142,27           Production Modernization         115,887         115,887         116,000         142,27           Production Modernization         127,879         172,787         148,181           Assessment Science         62,090         60,377         5,000           Engineering and Integrated Assessments         37,302         48,677         27,933           Inertial Confinement Fusion         16,971         45,03         44,073           Advanced Simulation and Computing         700         0         0         62,010           Weapons Technology and Manufacturing Maturation         32,670         8,262         15,853           Stockpile Research, Technology, and Engineering         221,439         256,215         138,889           Stockpile Research, Technology, and Engineering         25130         2,857         15,844           16-0-515, Abuduengue Complex Project         47,953         0         0         0           Mission Enabling         73,083         2,857         1,544         1,447         38,432 </td <td>Weapons Dismantlement and Disposition</td> <td>13,000</td> <td>1,113</td> <td>0</td>	Weapons Dismantlement and Disposition	13,000	1,113	0
Plutonium kodernization7.5047.2373.86Primary Capability Modernization7.5047.2373.66Sacondary Capability Modernization115.8871165.0001146.277Production Modernization117.879117.787149.180Assessment Science62.09069.2775.000Engineering and Integrated Assessments37.30248.67727.033Interial Confinement Fluxion16.97145.6630.00Advanced Simulation and Computing70.8664.49266.917Vietegons Technology and Mandracturing Maturation32.6703.2682.064Stockpile Research, Technology, and Engineering221.4392.6533.653Infrastructure and Safety24.6002.8329.93Infrastructure and Safety24.6002.8329.93Operating27.5130.040.04Misation Enabling47.9530.040.04Misation Enabling47.9530.040.04Infrastructure and Safety7.5737.7678.94Misation Enabling7.5737.7678.94Misation Enabling7.5737.7678.94Infrastructure and Deparations7.5737.7678.94Defense Nuclear Security (DNS)7.5737.7678.94Vietagon Safchittes Programs7.5737.7678.94Defense Nuclear Security (DNS)7.5737.7678.94Nuclear Singlig Detection and Deterrence59.68975.74416.65 <td< td=""><td>Production Operations</td><td>0</td><td>3,796</td><td>10,105</td></td<>	Production Operations	0	3,796	10,105
Primary Capability Modernization         7,504         7,237         36           Secondary Capability Modernization         44.88         550         55           Tritium and Demssic Uranium Enrichment         115,837         116,000         148,277           Production Modernization         127,879         172,787         149,180           Assessment Science         62,890         69,277         5,000           Engineering and Integrated Assessments         37,302         48,657         27,933           Advanced Simulation and Computing         750         0         0         0           Advanced Simulation and Computing         70,866         84,442         65,611         53,630         26,839         53,89           Stockpile Research, Technology, and Engineering         221,439         226,215         138,89           Stockpile Research, Technology, and Engineering         24,600         2,832         999           Operaing         24,600         2,832         999         16,60         16,421         36,424         16,401           Operaing         24,600         2,832         10,432         14,403         14,073         16,44         16,60         14,423         14,073         16,60         14,54         16,60         16,44 </td <td>Stockpile Management</td> <td>226,198</td> <td>224,790</td> <td>197,026</td>	Stockpile Management	226,198	224,790	197,026
Secondary Capability Modernization         4.488         550         555           Tituur and Domestic Utanium Enrichment         115,887         1165,000         1148,77           Production Modernization         127,879         117,2787         1149,184           Assessment Science         62,890         62,277         149,184           Assessment Science         62,890         62,277         7,500           Engineering and Integrated Assessments         37,302         44,677         27,933           Inertial Confinement Fusion         19,971         45,563         62,004           Acdvanced Struktation and Computing         32,670         8,206         20,044           Acdvanced Struktation         32,670         8,206         20,044           Acdvanced Struktation and Computing         221,439         256,215         138,899           Stockpile Research, Technology, and Engineering         221,439         265,215         138,899           Stockpile Research, Technology and Engineering         24,600         2,832         999           Recapitalization         24,600         2,832         999           Operating         24,600         2,832         999           Infrastructure and Sofety         2,613         2,857         1,454 <td>Plutonium Modernization</td> <td>7,504</td> <td>7,237</td> <td>364</td>	Plutonium Modernization	7,504	7,237	364
Tritium and Domestic Uranium Enrichment         115,887         165,000         148,277           Production Modernization         127,879         172,787         149,182           Assessment Science         62,800         69,277         5,000           Engineering and Integrated Assessments         37,302         48,677         27,933           Inertial Confinement Fusion         16,971         45,563         0         0           Advanced Simulated Assessments         32,670         8,060         20,044         Academic Programs         70,856         84,492         85,913           Stockpile Research, Technology and Engineering         21,303         255         138,899         Safety and Engineering         21,803         256,215         138,899           Stockpile Research, Technology and Engineering         24,600         2,832         999         164,313         266,215         138,999           Stockpile Research, Technology and Engineering         24,600         2,832         999         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014         160,014	Primary Capability Modernization	7,504	7,237	364
Production Modernization         127,879         172,787         149,181           Assessment Science         62,800         662,277         5,000           Engineering and Integrated Assessments         37,022         48,677         27,933           Inertial Confinement Fusion         16,871         45,653         48,677         27,933           Advanced Simulation and Computing         750         0         0         0           Academic Programs         32,670         8,206         82,020         42,036           Stockpile Research, Technology, and Engineering         221,439         256,215         138,899         58164         44,022         39,93         255         117,837         145,415         154,416         154,419         46,000         2,832         39,93         26,93         144,418         144,323         30,93         25         155,93         1,544         154,513         154,415	Secondary Capability Modernization	4,488	550	550
Assessment Science         62,00         69,277         5,00           Engineering and Integrated Assessments         37,302         48,677         27,933           Inertial Confinement Fusion         16,971         45,663         0         0           Advanced Simulation and Computing         750         0	Tritium and Domestic Uranium Enrichment	115,887	165,000	148,272
Engineering and Integrated Assessments         37,302         48,677         27,333           Inertial Confinement Fusion         16,971         45,563         0           Advanced Simulation and Computing         750         0         0         0           Weepons Technology and Manufacturing Meturation         32,670         82,066         82,064         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,067         82,07         84,07         84,07         84,07         84,07         84,07         84,07         84,07         84,07         84,07         84,07         84,07	Production Modernization	127,879	172,787	149,186
Inertial Confinement Fusion         16.971         45.563         4           Advanced Simulation and Computing         750         0         0           Weapons Technology and Manufacturing Maturation         32.670         82.06         20.04           Academic Programs         70.856         84.492         85.911           Stockpile Research, Technology, and Engineering         221.139         2256.215         138.898           Satety and Environmental Operations         530         25         551           Infrastructure and Satety         24.600         2.832         999           Recapitalization         24.800         2.832         999           Operating         25.130         2.857         1.544           16-D-515, Albuquerque Complex Project         47.953         0         0           Mission Enabling         47.953         0         0         0           Infrastructure and Operations         73.083         2.857         1.544           StA Operations and Equipment         101.421         88.432         140.733           Defense Nuclear Security (DNS)         7,573         7,767         8.944           Weapons Activities Programs         757.583         752.848         636.222           In	Assessment Science	62,890	69,277	5,000
Advanced Simulation and Computing         750         0         0           Weapons Technology and Manufacturing Maturation         32,670         8,206         20,044           Academic Programs         70,856         84,492         85,517           Stockpile Research, Technology, and Engineering         221,439         256,215         138,89           Statety and Environmental Operations         530         2.5         655           Infrastructure and Safety         24,600         2.832         999           Recapitalization         24,600         2.832         999           Operating         25,130         2.857         1.544           16-D-515, Albuquerque Complex Project         47,953         0         0           Mission Enabling         47,953         0         0         0           Infrastructure and Operations         73,083         2.857         1.544           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7.573         7.767         8.944           Weapons Activities Programs         757,593         752,84         636,322           International Radiological Security         6,306         5,231         4,444	Engineering and Integrated Assessments	37,302	48,677	27,932
Weapons Technology and Manufacturing Maturation         32.670         8.206         20.044           Academic Programs         70,856         84.492         85.911           Stockpile Research, Technology, and Engineering         221,439         256.215         138.809           Safety and Environmental Operations         530         25         555           Infrastructure and Safety         24.600         2.832         999           Recapitalization         26,510         2.857         1.544           1b-D-515, Albuquerque Complex Project         47.953         0         0           Mission Enabling         47.953         0         0         0           Infrastructure and Operations         73,083         2.857         1.544           StA Operations and Equipment         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Weapons Activities Programs         757,593         752,848         636.322           International Nuclear Security         6,906         5,321         4,944           Nuclear Smugling Detection and Deterrence         59,859         75,744         76,101           Global Material Removal         2,000         0         6,900 </td <td>Inertial Confinement Fusion</td> <td>16,971</td> <td>45,563</td> <td>0</td>	Inertial Confinement Fusion	16,971	45,563	0
Academic Programs         70,856         84,492         85,911           Stockpile Research, Technology, and Engineering         221,439         256,215         138,899           Safety and Environmental Operations         530         25         555           Infrastructure and Safety         24,600         2,832         999           Recapitalization         24,600         2,832         999           Operating         25,130         2,857         11,544           16-D-515, Albuquerque Complex Project         47,953         0         0           Mission Enabling         47,953         0         0         0           Infrastructure and Operations         73,083         2,857         1,544           StA Operations and Equipment         101,421         88,432         140,733           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Weapons Activities Programs         75,7593         75,284         636,232           International Nuclear Security (DNS)         5,355         17,294         11,884           International Nuclear Security         5,365         7,294         3,518 <td< td=""><td>Advanced Simulation and Computing</td><td></td><td></td><td>0</td></td<>	Advanced Simulation and Computing			0
Academic Programs         70,856         84,492         85,911           Stockpile Research, Technology, and Engineering         221,439         256,215         138,899           Safety and Environmental Operations         530         25         556           Infrastructure and Safety         24,600         2,832         999           Recapitalization         24,600         2,832         999           Operating         25,130         2,857         11,544           16-D-515, Albuquerque Complex Project         47,953         0         0           Mission Enabling         47,953         0         0         0           Infrastructure and Operations         73,083         2,857         1,544           StA Operations and Equipment         101,421         88,432         140,733           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Weapons Activities Programs         75,759         7,624         36,622           International Nuclear Security         5,355         17,294         11,884           Vuclear Security (DNS)         5,355         7,767         8,944           Nuclear Security	Weapons Technology and Manufacturing Maturation	32,670	8,206	20,046
Safety and Environmental Operations         530         25         555           Infrastructure and Safety         24,600         2,832         989           Recapitalization         24,600         2,832         989           Operating         25,130         2,857         1,64           16-D-515, Albuquerque Complex Project         47,953         0         0           Mission Enabling         47,953         0         0         0           180 - Construction         47,953         0		70,856	84,492	85,912
Safety and Environmental Operations         530         25         555           Infrastructure and Safety         24,600         2,832         989           Recapitalization         24,600         2,832         989           Operating         25,130         2,857         1,64           16-D-515, Albuquerque Complex Project         47,953         0         0           Mission Enabling         47,953         0         0         0           180 - Construction         47,953         0	Stockpile Research, Technology, and Engineering	221,439	256,215	138,890
Infrastructure and Safety         24,600         2,832         999           Recapitalization         24,600         2,832         999           Operating         25,130         2,857         1,544           16-D-515, Albuquerque Complex Project         47,953         0         0           Mission Enabling         47,953         0         0         0           180 - Construction         47,953         0			25	550
Recapitalization         24,600         2,832         999           Operating         25,130         2,857         1,544           16-D-515, Albuquerque Complex Project         47,953         0         0           Mission Enabling         47,953         0         0         0           180 - Construction         47,953         0	Infrastructure and Safety	24,600	2,832	993
16-D-515, Albuquerque Complex Project         47,953         0           Mission Enabling         47,953         0         0           I&O - Construction         47,953         0         0           Infrastructure and Operations         73,083         2,857         1,543           STA Operations and Equipment         101,421         88,432         140,733           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security         3,518         2,600         2,977           Domestic Radiological Security         3,518         2,600         2,977           Domestic Radiological Security         5,365         17,294         11,883           International Nuclear Security         6,906         5,321         4,944           Nuclear Smuggling Detection and Deterrence         59,859         75,744         76,100           Global Material Security         0         0         0         0           Nuclear Material Removal<	Recapitalization	24,600	2,832	993
16-D-515, Albuquerque Complex Project         47,953         0           Mission Enabling         47,953         0         0           I&O - Construction         47,953         0         0           Infrastructure and Operations         73,083         2,857         1,543           STA Operations and Equipment         101,421         88,432         140,733           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security         7,573         7,767         8,944           International Nuclear Security         3,518         2,600         2,977           Domestic Radiological Security         3,518         2,600         2,977           International Nuclear Security         6,906         5,321         4,944           Nuclear Smuggling Detection and Deterrence         59,859         75,744         76,103           Global Material Security         0         0         500         500           Nuclear Material Remova	Operating	25,130	2,857	1,543
Mission Enabling         47,953         0           1&O - Construction         47,953         0         0           Infrastructure and Operations         73,083         2,857         1,544           STA Operations and Equipment         101,421         88,432         140,733           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Weapons Activities Programs         757,593         752,848         636,322           International Nuclear Security         3,518         2,600         2,974           Domestic Radiological Security         5,365         17,294         11,883           International Radiological Security         5,365         17,294         11,883           Nuclear Smuggling Detection and Deterrence         59,859         75,744         76,100           Global Material Security         75,648         100,959         95,900           Conversion (formerly HEU Reactor Conversion)         0         0         0           Nuclear Material Removal         2,200         1,000         3,000         0           <	16-D-515, Albuquerque Complex Project		0	0
I&O - Construction         47,953         0           Infrastructure and Operations         73,083         2,857         1,544           STA Operations and Equipment         101,421         88,432         140,733           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Weapons Activities Programs         757,593         752,848         636,322           International Nuclear Security         3,518         2,600         2,970           Domestic Radiological Security         5,365         17,294         11,883           International Radiological Security         6,906         5,321         4,944           Nuclear Smuggling Detection and Deterrence         59,859         75,744         76,100           Global Material Security         0 <td< td=""><td>Mission Enabling</td><td></td><td>0</td><td>0</td></td<>	Mission Enabling		0	0
STA Operations and Equipment         101,421         88,432         140,733           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Weapons Activities Programs         7,573         7,767         8,944           International Nuclear Security         3,518         2,600         2,974           Domestic Radiological Security         5,365         17,294         11,882           International Radiological Security         6,906         5,321         4,944           Nuclear Smuggling Detection and Deterrence         59,859         75,744         76,10           Global Material Security         0         0         500         500           Nuclear Material Removal         2,200         1,000         3,000	I&O - Construction	47,953	0	0
STA Operations and Equipment         101,421         88,432         140,733           Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security (DNS)         7,573         7,767         8,944           Weapons Activities Programs         7,573         7,767         8,944           International Nuclear Security         3,518         2,600         2,974           Domestic Radiological Security         5,365         17,294         11,882           International Radiological Security         6,906         5,321         4,944           Nuclear Smuggling Detection and Deterrence         59,859         75,744         76,10           Global Material Security         0         0         500         500           Nuclear Material Removal         2,200         1,000         3,000	Infrastructure and Operations		2,857	1,543
Secure Transportation Asset         101,421         88,432         140,733           Defense Nuclear Security (DNS)         7,573         7,767         8,943           Defense Nuclear Security         7,573         7,767         8,943           Weapons Activities Programs         7,573         7,767         8,943           International Nuclear Security         3,518         2,600         2,974           Domestic Radiological Security         5,365         17,294         11,882           International Radiological Security         6,906         5,321         4,944           Nuclear Smuggling Detection and Deterrence         59,859         75,744         76,100           Global Material Security         75,648         100,959         95,900           Nuclear Material Removal         2,200         1,000         5000           Nuclear Material Disposition         20         0         0         0           Material Disposition         20,850         2550         0         0         0           Material Management and Minimization         23,250         1,250         3,500         0		101,421	88,432	140,735
Defense Nuclear Security (DNS)         7,573         7,767         8,944           Defense Nuclear Security         7,573         7,767         8,944           Weapons Activities Programs         7,573         7,767         8,944           Weapons Activities Programs         7,573         7,767         8,944           International Nuclear Security         7,573         7,573         636,324           International Nuclear Security         3,518         2,600         2,974           Domestic Radiological Security         5,365         17,294         11,882           International Radiological Security         6,906         5,321         4,944           Nuclear Smuggling Detection and Deterrence         59,859         75,744         76,100           Global Material Security         75,648         100,959         95,909           Conversion (formerly HEU Reactor Conversion)         0         0         0         0           Nuclear Material Removal         2,200         1,000         3,000         0 <td></td> <td></td> <td>88,432</td> <td>140,735</td>			88,432	140,735
Weapons Activities Programs757,593752,848636,324International Nuclear Security3,5182,6002,974Domestic Radiological Security5,36517,29411,885International Radiological Security6,9065,3214,944Nuclear Smuggling Detection and Deterrence59,85975,74476,107Global Material Security00500Nuclear Material Removal75,648100,95995,000Nuclear Material Removal2,2001,0003,000Material Disposition20000Laboratory and Partnership Support20,85025000Material Management and Minimization23,2501,2503,500	Defense Nuclear Security (DNS)			8,949
Weapons Activities Programs757,593752,848636,324International Nuclear Security3,5182,6002,974Domestic Radiological Security5,36517,29411,885International Radiological Security6,9065,3214,944Nuclear Smuggling Detection and Deterrence59,85975,74476,107Global Material Security00500Nuclear Material Removal75,648100,95995,000Nuclear Material Removal2,2001,0003,000Material Disposition20000Laboratory and Partnership Support20,85025000Material Management and Minimization23,2501,2503,500			7,767	8,949
International Nuclear Security3,5182,6002,970Domestic Radiological Security5,36517,29411,882International Radiological Security6,9065,3214,944Nuclear Smuggling Detection and Deterrence59,85975,74476,100Global Material Security75,648100,95995,903Conversion (formerly HEU Reactor Conversion)00500Nuclear Material Removal2,2001,0003,000Nuclear Material Disposition20000Laboratory and Partnership Support20,8502500Material Management and Minimization23,2501,2503,500	Weapons Activities Programs			636,329
Domestic Radiological Security5,36517,29411,862International Radiological Security6,9065,3214,944Nuclear Smuggling Detection and Deterrence59,85975,74476,100Global Material Security75,648100,95995,908Conversion (formerly HEU Reactor Conversion)00500Nuclear Material Removal2,2001,0003,000Nuclear Material Disposition20000Material Disposition20,8502500Material Management and Minimization23,2501,2503,500		3,518	2,600	2,976
International Radiological Security6,9065,3214,944Nuclear Smuggling Detection and Deterrence59,85975,74476,100Global Material Security75,648100,95995,900Conversion (formerly HEU Reactor Conversion)00500Nuclear Material Removal2,2001,0003,000Material Disposition20000Laboratory and Partnership Support20,8502500Material Management and Minimization23,2501,2503,500	Domestic Radiological Security	5,365	17,294	11,882
Nuclear Smuggling Detection and Deterrence59,85975,74476,10Global Material Security75,648100,95995,909Conversion (formerly HEU Reactor Conversion)00500Nuclear Material Removal2,2001,0003,000Nuclear Material Disposition20000Laboratory and Partnership Support20,8502500Material Management and Minimization23,2501,2503,500			5,321	4,946
Global Material Security75,648100,95995,908Conversion (formerly HEU Reactor Conversion)00500Nuclear Material Removal2,2001,0003,000Material Disposition20000Laboratory and Partnership Support20,8502500Material Management and Minimization23,2501,2503,500			75,744	76,101
Conversion (formerly HEU Reactor Conversion)00Nuclear Material Removal2,2001,000Material Disposition2000Laboratory and Partnership Support20,850250Material Management and Minimization23,2501,250		75,648	100,959	95,905
Material Disposition2000Laboratory and Partnership Support20,850250Material Management and Minimization23,2501,250	-			500
Material Disposition2000Laboratory and Partnership Support20,850250Material Management and Minimization23,2501,250				3,000
Laboratory and Partnership Support20,850250Material Management and Minimization23,2501,2503,500				0,000
Material Management and Minimization 23,250 1,250 3,500				0
-				3,500
	Nonproliferation & Arms Control	2,500	0	0

### DEPARTMENT OF ENERGY Laboratory Table NNSA Albuquerque Complex FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Proliferation Detection R&D	15,002	34,708	34,153
Nuclear Detonation Detection	15,176	16,532	16,245
Nonproliferation Fuels Development	400	0	0
Nonproliferation Stewardship Program	0	3,600	21,000
Defense Nuclear Nonproliferation R&D	30,578	54,840	71,398
99-D-143, Mixed Oxide Fuel Fabrication Facility, SRS	8,383	30,000	0
18-D-150, Surplus Plutonium Disposition Project, SRS	0	500	500
Nonproliferation Construction	8,383	30,500	500
Counterterrorism and Counterproliferation	289	298	307
Nuclear Counterterrorism & Incident Response	289	298	307
Defense Nuclear Nonproliferation Programs	140,648	187,847	171,610
Strategic Partnership Projects	8,500	7,078	8,918
Departmental Administration Programs	8,500	7,078	8,918
Environment, Health, Safety & Security	1,000	1,000	1,000
Environment, Health, Safety, and Security	1,000	1,000	1,000
Enterprise Assessments	150	150	150
Office of Enterprise Assessments	150	150	150
Other Defense Activites Programs	1,150	1,150	1,150
Program Direction - Defense Environmental Cleanup	5,233	5,447	5,754
Defense Environmental Cleanup Programs	5,233	5,447	5,754
Total NNSA Albuquerque Complex	913,124	954,370	823,761

# DEPARTMENT OF ENERGY Laboratory Table NNSA Production Office (NPO) FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
NNSA Production Office (NPO)			· · · · ·
Tritium and Domestic Uranium Enrichment	0	275	0
Production Modernization	0	275	0
Weapons Activities Programs	0	275	0
Material Disposition	14,090	7,135	10,190
Material Management and Minimization	14,090	7,135	10,190
Defense Nuclear Nonproliferation Programs	14,090	7,135	10,190
Program Direction - National Nuclear Security Administration	23,955	25,207	25,305
Federal Salaries and Expenses Programs	23,955	25,207	25,305
Total NNSA Production Office (NPO)	38,045	32,617	35,495

### DEPARTMENT OF ENERGY Laboratory Table Oak Ridge Institute for Science & Education FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Oak Ridge Institute for Science & Education			
Assessment Science	100	100	0
Inertial Confinement Fusion	260	0	0
Stockpile Research, Technology, and Engineering	360	100	0
Weapons Activities Programs	360	100	0
Counterterrorism and Counterproliferation	1,860	1,916	1,973
Nuclear Counterterrorism & Incident Response	1,860	1,916	1,973
Defense Nuclear Nonproliferation Programs	1,860	1,916	1,973
Program Direction - National Nuclear Security Administration	570	570	570
Federal Salaries and Expenses Programs	570	570	570
Biological & Environmental Research	4,103	3,187	2,102
Research - Fusion Energy Sciences	750	700	700
Fusion Energy Sciences	750	700	700
Operations and Maintenance - Nuclear Physics	467	697	636
Nuclear Physics	467	697	636
Workforce Development for Teachers & Scientists	11,176	0	0
Safeguards and Security - SC	1,892	1,894	1,894
Science Programs	18,388	6,478	5,332
Bioenergy Technologies	851	351	245
Building Technologies	2,150	650	0
State Energy Program Grants	0	450	0
Training and Technical Assistance	450	450	0
Weatherization and Intergovernmental Programs	450	900	0
Advanced Manufacturing	5,700	5,495	0
Federal Energy Management Program	167	325	0
Vehicle Technologies	900	0	0
Geothermal Technologies	200	600	125
Hydrogen and Fuel Cells Technologies	721	873	500
Energy Efficiency and Renewable Energy Programs	11,139	9,194	870
Infrastructure Security and Energy Restoration	210	1,600	1,887
Cybersecurity, Energy Security, and Emergency Response Programs	210	1,600	1,887
Other Departmental Administration	220	220	220
Departmental Administration Programs	220	220	220
Environment, Health, Safety & Security	1,305	1,305	1,305
Environment, Health, Safety, and Security	1,305	1,305	1,305
Other Defense Activites Programs	1,305	1,305	1,305
Total Oak Ridge Institute for Science & Education	34,052	21,383	12,157

# DEPARTMENT OF ENERGY Cak Ridge National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Oak Ridge National Laboratory		· · · · ·	
Tritium and Domestic Uranium Enrichment	44,477	40,855	42,822
Production Modernization	44,477	40,855	42,822
Advanced Simulation and Computing	30	608	0
Stockpile Research, Technology, and Engineering	30	608	0
Safety and Environmental Operations	6,640	8,395	8,550
Infrastructure and Safety	9,350	0	0
Recapitalization	9,350	0	0
Operating	15,990	8,395	8,550
Infrastructure and Operations	15,990	8,395	8,550
Weapons Activities Programs	60,497	49,858	51,372
International Nuclear Security	8,125	12,427	14,168
Domestic Radiological Security	3,900	4,577	3,145
International Radiological Security	6,879	6,091	5,661
Nuclear Smuggling Detection and Deterrence	14,958	10,218	10,266
Global Material Security	33,862	33,313	33,240
Conversion (formerly HEU Reactor Conversion)	0	500	3,450
Nuclear Material Removal	5,761	4,950	6,300
Material Disposition	1,150	2,100	0
Laboratory and Partnership Support	2,255	1,060	0
Material Management and Minimization	9,166	8,610	9,750
Nonproliferation & Arms Control	17,736	20,381	20,193
National Technical Nuclear Forensics R&D	0	0	1,938
Proliferation Detection R&D	30,232	24,481	24,089
Nuclear Detonation Detection	780	830	246
Nonproliferation Fuels Development	6,555	4,300	0
Nonproliferation Stewardship Program	0	750	8,560
Defense Nuclear Nonproliferation R&D	37,567	30,361	32,895
Counterterrorism and Counterproliferation	4,555	7,191	8,415
Nuclear Counterterrorism & Incident Response	4,555	7,191	8,415
Defense Nuclear Nonproliferation Programs	102,886	99,856	106,431
Program Direction - National Nuclear Security Administration	81	81	81
Federal Salaries and Expenses Programs	81	81	81
Research - Advanced Scientific Computing Research	213,837	235,031	228,092
17-SC-20, Office of Science Exascale Computing Project (SC-ECP)	232,706	188,735	168,945
Advanced Scientific Computing Research	446,543	423,766	397,037
Research - Basic Energy Sciences	349,799	374,486	330,118
19-SC-14, Second Target Station (STS), ORNL	1,000	20,000	1,000
18-SC-11, Spallation Neutron Source Proton Power Upgrade (PPU), ORNL	60,000	60,000	5,000
Construction - Basic Energy Sciences	61,000	80,000	6,000
Basic Energy Sciences	410,799	454,486	336,118
Biological & Environmental Research	82,294	78,923	59,393
Research - Fusion Energy Sciences	30,283	31,362	29,272
14-SC-60, U.S. Contributions to ITER (U.S. ITER)	132,000	242,000	107,000
Construction - Fusion Energy Sciences	132,000	242,000	107,000
Fusion Energy Sciences	162,283	273,362	136,272
Research - High Energy Physics	920	697	407
High Energy Physics	920	697	407
Operations and Maintenance - Nuclear Physics	18,206	18,263	16,879

# DEPARTMENT OF ENERGY Laboratory Table Oak Ridge National Laboratory FY 2021 (Dollars in Thousands)

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	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
20-SC-51, U.S. Stable Isotope Production and Research Center, ORNL	0	12,000	12,000
Construction - Nuclear Physics	0	12,000	12,000
Nuclear Physics	18,206	30,263	28,879
Oak Ridge Nuclear Operations	26,000	26,000	6,000
20-SC-74, Craft Resources Support Facility, ORNL (19-SC-74)	0	15,000	25,000
19-SC-73, Translational Research Capability, ORNL	25,000	25,000	10,000
Construction - Science Laboratories Infrastructure	25,000	40,000	35,000
Science Laboratories Infrastructure	51,000	66,000	41,000
Safeguards and Security - SC	12,864	29,973	29,973
Science Programs	1,184,909	1,357,470	1,029,079
Bioenergy Technologies	13,381	13,381	3,900
Building Technologies	15,316	27,568	5,500
Training and Technical Assistance	1,025	1,550	0
Weatherization and Intergovernmental Programs	1,025	1,550	0
Advanced Manufacturing	32,025	36,028	11,666
Federal Energy Management Program	2,382	6,052	1,150
Vehicle Technologies	52,000	29,500	12,800
Geothermal Technologies	4,133	1,025	25
Solar Energy Technologies	2,581	0	289
Water Power Technologies	6,273	6,985	2,300
Wind Energy Technologies	925	1,306	198
Hydrogen and Fuel Cells Technologies	2,609	3,160	1,000
Energy Efficiency and Renewable Energy Programs	132,650	126,555	38,828
Transmission Reliability and Resilience	2,488	20,900	20,000
Resilient Distribution Systems	4,693	11,076	1,000
Energy Storage Research	4,525	3,500	4,000
Energy Storage	4,525	3,500	4,000
Transformer Resilience and Advanced Components	2,525	3,000	3,000
Transmission Permitting and Technical Assistance	155	0	0
Electricity Programs	14,386	38,476	28,000
Cybersecurity for Energy Delivery Systems	10,800	1,300	1,534
Infrastructure Security and Energy Restoration	2,950	5,500	6,488
Cybersecurity, Energy Security, and Emergency Response Programs	13,750	6,800	8,022
Carbon Capture Utilization and Storage	0	1,075	607
Advanced Energy Systems	0	12,499	26,823
Advanced Coal Energy Systems & CCUS	0	13,574	27,430
Strategic Petroleum Reserve Management	570	570	570
Fossil Energy	570	14,144	28,000
Crosscutting Technology Development	1,035	60	60
Energy Innovation Hub for Modeling and Simulation	19,381	0	0
Nuclear Science User Facilities	6,524	1,250	1,200
		0	0
NEAMS Joint Modeling and Simulation Program	1,538 0		
Transformational Challenge Reactor		17,000	22,550
Joint Modeling and Simulation Program	0	1,080	2,000
Nuclear Energy Enabling Technologies	28,478	19,390	25,810
Light Water Reactor Sustainability	6,612		5,000
Advanced Reactor Technologies	17,382		5,000
Versatile Advanced Test Reactor	45	1,800	0
Advanced SMR R&D	17,450	0	0
Reactors Concepts RD&D	41,489	12,418	10,000
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# DEPARTMENT OF ENERGY Laboratory Table Oak Ridge National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Regulatory Development	0	2,000	1,000
Advanced Reactors Demonstration Program	0	2,000	1,000
Oak Ridge Nuclear Infrastructure	19,985	19,957	0
Radiological Facilities Management	19,985	19,957	0
Program Direction - Nuclear Energy	250	266	120
International Nuclear Energy Cooperation	146	0	0
Materials Recovery and Waste Form Development (MRWFD)	0	1,100	440
Material recovery and waste form development	0	1,100	440
Accident Tolerant Fuels	0	4,628	1,000
Triso Fuel and Graphite Qualification	0	1,769	1,880
Total Advanced Fuels	0	6,397	2,880
Fuel Cycle Research and Development	25,152	0	0
Fuel Cycle Laboratory R&D	0	1,590	225
Used Nuclear Fuel Disposition R&D	0	5,500	5,000
Integrated Waste Management System	0	7,500	0
Fuel Cycle Research and Development FCRD	25,152	22,087	8,545
Nuclear Energy Programs	115,500	76,118	45,475
Other Departmental Administration	230	55	55
Strategic Partnership Projects	19,350	20,222	12,227
Departmental Administration Programs	19,580	20,277	12,282
Environment, Health, Safety & Security	1,035	1,035	1,035
Environment, Health, Safety, and Security	1,035	1,035	1,035
Other Defense Activites Programs	1,035	1,035	1,035
Advanced Technology Vehicle Manufacturing Loan Program	300	0	0
Advanced Technology Vehicles Manufacturing Loan Programs	300	0	0
OR Nuclear Facility D&D	189,000	213,000	109,077
U233 Disposition Program	52,300	55,000	45,000
Oak Ridge (OR)	241,300	268,000	154,077
Defense Environmental Cleanup Programs	241,300	268,000	154,077
Total Oak Ridge National Laboratory	1,887,444	2,058,670	1,502,682

## DEPARTMENT OF ENERGY Laboratory Table Oak Ridge National Laboratory Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Oak Ridge National Laboratory Site Office			
Program Direction - SC	5,551	5,934	6,074
Science Programs	5,551	5,934	6,074
Total Oak Ridge National Laboratory Site Office	5,551	5,934	6,074

# DEPARTMENT OF ENERGY Laboratory Table Oak Ridge Office FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Oak Ridge Office	Endeled	Endolog	Request Detail
Operations and Maintenance - Nuclear Physics	50	0	0
Nuclear Physics	50	0	0
Oak Ridge Landlord	6,434	5,610	5,860
Facilities and Infrastructure (SLI)	11,500	7,272	0
Science Laboratories Infrastructure	17,934	12,882	5,860
Safeguards and Security - SC	23,472	4,558	4,558
Program Direction - SC	24,177	0	0
Payment In Lieu of Taxes PILT	0	2,890	3,000
Science Programs	65,633	20,330	13,418
Program Direction - Nuclear Energy	1,819	1,832	1,862
Civil Nuclear Enrichment	0	40,000	40,000
Material recovery and waste form development	0	40,000	40,000
Fuel Cycle Research and Development	30,200	0	0
Fuel Cycle Research and Development FCRD	30,200	40,000	40,000
Nuclear Energy Programs	32,019	41,832	41,862
Environment, Health, Safety & Security	2,795	2,795	2,795
Environment, Health, Safety, and Security	2,795	2,795	2,795
Other Defense Activites Programs	2,795	2,795	2,795
Program Direction - Defense Environmental Cleanup	15,623	14,576	14,754
Defense Environmental Cleanup Programs	15,623	14,576	14,754
Total Oak Ridge Office	116,070	79,533	72,829

#### DEPARTMENT OF ENERGY Laboratory Table Oak Ridge Reservation FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Oak Ridge Reservation			
OR Cleanup and Waste Disposition	74,000	101,100	58,000
Oak Ridge (OR)	74,000	101,100	58,000
Defense Environmental Cleanup Programs	74,000	101,100	58,000
Total Oak Ridge Reservation	74,000	101,100	58,000

# DEPARTMENT OF ENERGY Cak Ridge Reservation (Off-Site) FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Oak Ridge Reservation (Off-Site)			
OR Community and Regulatory Support	5,700	5,900	4,930
Oak Ridge (OR)	5,700	5,900	4,930
Defense Environmental Cleanup Programs	5,700	5,900	4,930
Total Oak Ridge Reservation (Off-Site)	5,700	5,900	4,930

#### DEPARTMENT OF ENERGY Laboratory Table Office of River Protection FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Office of River Protection			
Rad Liquid Tank Waste Stabilization and Disposition	771,947	775,000	597,757
18-D-16 Waste treatment and immobilization plant - LBL/Direct Feed LAW	655,000	776,000	609,924
15-D-409 Low Activity Waste Pretreatment System	56,053	0	0
01-D-16-A-D Waste Treatment and Immobilization Plant	15,000	15,000	50,000
01-D-16D High-Level Waste Facility	60,000	25,000	0
01-D-16E Pretreatment Facility	15,000	15,000	0
Construction - Office of River Protection	801,053	831,000	659,924
ORP Low-Level Waste Offsite Disposal	0	10,000	0
Office of River Protection (ORP)	1,573,000	1,616,000	1,257,681
Program Direction - Defense Environmental Cleanup	32,270	32,543	28,827
Defense Environmental Cleanup Programs	1,605,270	1,648,543	1,286,508
Total Office of River Protection	1,605,270	1,648,543	1,286,508

## DEPARTMENT OF ENERGY Laboratory Table Office of Scientific & Technical Information FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Office of Scientific & Technical Information	2.140104	Endotod	requeer bottom
Assessment Science	212	220	220
Stockpile Research, Technology, and Engineering	212	220	220
Information Technology and Cyber Security	213	213	213
Weapons Activities Programs	425	433	433
Nuclear Detonation Detection	40	40	40
Defense Nuclear Nonproliferation R&D	40	40	40
Defense Nuclear Nonproliferation Programs	40	40	40
Research - Advanced Scientific Computing Research	155	157	155
Advanced Scientific Computing Research	155	157	155
Biological & Environmental Research	296	177	159
Research - High Energy Physics	0	189	0
High Energy Physics	0	189	0
Operations and Maintenance - Nuclear Physics	285	285	128
Nuclear Physics	285	285	128
Workforce Development for Teachers & Scientists	200	0	0
Facilities and Infrastructure (SLI)	0	200	200
Science Laboratories Infrastructure	0	200	200
Safeguards and Security - SC	759	759	759
Program Direction - SC	9,120	9,397	9,515
Science Programs	10,815	11,164	10,916
Other Departmental Administration	6	0	0
Departmental Administration Programs	6	0	0
Environment, Health, Safety & Security	300	300	300
Environment, Health, Safety, and Security	300	300	300
Other Defense Activites Programs	300	300	300
Total Office of Scientific & Technical Information	11,586	11,937	11,689

#### DEPARTMENT OF ENERGY Laboratory Table Pacific Northwest National Laboratory FY 2021 (Dollars in Thousands)

FY 2019 FY 2020 FY 2021 Request Detail Enacted Enacted Pacific Northwest National Laboratory **Production Operations** 0 50 0 Stockpile Management 0 50 0 Secondary Capability Modernization 0 756 756 Tritium and Domestic Uranium Enrichment 40,688 54,279 56,186 56,942 Production Modernization 40,688 55,035 Engineering and Integrated Assessments 20 35 0 Weapons Technology and Manufacturing Maturation 20 35 0 Stockpile Research, Technology, and Engineering 70 0 40 Safety and Environmental Operations 6,275 3,150 7,536 Capabilities Based Investments 0 100 0 Recapitalization 0 100 0 Operating 6,275 3,250 7,536 Infrastructure and Operations 6,275 3,250 7,536 Weapons Activities Programs 47,003 58,405 64,478 International Nuclear Security 3,104 4,064 4,742 **Domestic Radiological Security** 30,926 26,463 18,182 International Radiological Security 41 620 35 200 32 717 Nuclear Smuggling Detection and Deterrence 53,763 44,458 44,667 Global Material Security 129,413 110,185 100,308 Conversion (formerly HEU Reactor Conversion) 22,000 27,712 0 Nuclear Material Removal 250 350 0 Material Disposition 5.171 100 1.400 Laboratory and Partnership Support 809 0 0 Material Management and Minimization 29,462 6,230 22,100 22,892 Nonproliferation & Arms Control 22,659 22.681 National Technical Nuclear Forensics R&D 5,509 0 0 Proliferation Detection R&D 27,504 28,451 16,302 15,297 Nuclear Detonation Detection 4,428 5,122 Nonproliferation Fuels Development 25.520 0 0 Nonproliferation Stewardship Program 0 750 4,780 36,379 Defense Nuclear Nonproliferation R&D 34,323 57,452 99-D-143, Mixed Oxide Fuel Fabrication Facility, SRS 200 0 0 18-D-150, Surplus Plutonium Disposition Project, SRS 0 2,250 2,000 Nonproliferation Construction 200 2 2 5 0 2.000 **Emergency Operations** 1,080 940 960 Counterterrorism and Counterproliferation 2,784 2,867 2,954 Nuclear Counterterrorism & Incident Response 3.864 3.807 3.914 Defense Nuclear Nonproliferation Programs 219,818 195,557 200,253 Program Direction - National Nuclear Security Administration 0 1,400 1,400 0 Federal Salaries and Expenses Programs 1.400 1.400 Research - Advanced Scientific Computing Research 5,597 4,360 1,915 Advanced Scientific Computing Research 5,597 4,360 1,915 Research - Basic Energy Sciences 33.216 33.838 33,838 **Basic Energy Sciences** 33,216 33,838 33,838 **Biological & Environmental Research** 141,297 107,127 84,114 Research - Fusion Energy Sciences 250 650 1,663 **Fusion Energy Sciences** 250 650 1,663 Research - High Energy Physics 1,460 1,855 1,160

#### DEPARTMENT OF ENERGY Laboratory Table Pacific Northwest National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
High Energy Physics	1,460	1,855	1,160
Operations and Maintenance - Nuclear Physics	500	830	287
Nuclear Physics	500	830	287
Workforce Development for Teachers & Scientists	1,022	0	0
18-SC-71, Energy Sciences Capability, PNNL	24,000	23,000	23,000
Construction - Science Laboratories Infrastructure	24,000	23,000	23,000
Science Laboratories Infrastructure	24,000	23,000	23,000
Safeguards and Security - SC	12,459	12,759	12,759
Science Programs	219,801	184,419	158,736
Bioenergy Technologies	17,921	17,350	3,500
Building Technologies	22,898	30,172	4,500
State Energy Program Grants	60	0	0
Weatherization and Intergovernmental Programs	60	0	0
Advanced Manufacturing	300	300	0
5			
Federal Energy Management Program	4,788	4,839	1,300
Vehicle Technologies	14,500	13,300	7,250
Strategic Programs	250	50	100
Geothermal Technologies	3,985	725	25
Solar Energy Technologies	48	316	0
Water Power Technologies	15,565	12,411	4,957
Wind Energy Technologies	6,501	6,430	1,671
Hydrogen and Fuel Cells Technologies	4,904	5,940	1,500
Energy Efficiency and Renewable Energy Programs	91,720	91,833	24,803
Transmission Reliability and Resilience	9,219	12,750	12,850
Resilient Distribution Systems	10,043	6,182	5,000
Energy Storage Research	16,624	15,000	16,000
Energy Storage	16,624	15,000	16,000
Transformer Resilience and Advanced Components	340	0	0
DCEI Energy Mission Assurance	0	1,000	40,000
Transmission Permitting and Technical Assistance	1,373	600	600
Electricity Programs	37,599	35,532	74,450
Cybersecurity for Energy Delivery Systems	6,050	3,300	3,893
Infrastructure Security and Energy Restoration	425	3,500	4,129
Cybersecurity, Energy Security, and Emergency Response Programs	6,475	6,800	8,022
Carbon Capture Utilization and Storage	829	3,952	2,232
Advanced Energy Systems	0	494	1,060
Cross Cutting Research	320	0	0
Advanced Coal Energy Systems & CCUS	1,149	4,446	3,292
Unconventional Fossil Energy from Petroleum - Oil Technologies	500	500	185
Natural Gas Technologies Research	599	699	377
Fossil Energy	2,248	5,645	3,854
Crosscutting Technology Development	1,430	30	30
Nuclear Science User Facilities	0	50	50
Nuclear Energy Enabling Technologies	1,430	80	80
Advanced Reactor Technologies	500	580	600
Versatile Advanced Test Reactor	0	1,000	0
Advanced SMR R&D	277	0	0
Reactors Concepts RD&D	777	1,580	600
Regulatory Development	0	1,100	550
Advanced Reactors Demonstration Program	0	1,100	550
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## DEPARTMENT OF ENERGY Laboratory Table Pacific Northwest National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Program Direction - Nuclear Energy	0	158	. 195
International Nuclear Energy Cooperation	158	0	0
Mining, Conversion, and Transportation	0	0	450
Fuel Cycle Research and Development Mining and Conversion FCRD	0	0	450
Materials Recovery and Waste Form Development (MRWFD)	0	1,010	404
Material recovery and waste form development	0	1,010	404
Fuel Cycle Research and Development	14,840	0	0
Fuel Cycle Laboratory R&D	0	1,140	171
Used Nuclear Fuel Disposition R&D	0	9,000	9,000
Integrated Waste Management System	0	3,500	0
Fuel Cycle Research and Development FCRD	14,840	14,650	10,025
Nuclear Energy Programs	17,205	17,568	11,450
Other Departmental Administration	188	175	175
Departmental Administration Programs	188	175	175
Environment, Health, Safety & Security	1,905	1,905	1,905
Environment, Health, Safety, and Security	1,905	1,905	1,905
Other Defense Activites Programs	1,905	1,905	1,905
Total Pacific Northwest National Laboratory	643,961	599,239	549,526

# DEPARTMENT OF ENERGY Laboratory Table Pacific Northwest Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Pacific Northwest Site Office			
Program Direction - SC	5,084	5,186	5,036
Science Programs	5,084	5,186	5,036
Total Pacific Northwest Site Office	5,084	5,186	5,036

## DEPARTMENT OF ENERGY Laboratory Table Paducah Gaseous Diffusion Plant FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Paducah Gaseous Diffusion Plant			
Program Direction - Defense Environmental Cleanup	16,161	12,398	15,044
Safeguards and Security - Defense Environmental Cleanup	15,577	15,789	16,206
Defense Environmental Cleanup Programs	31,738	28,187	31,250
Gaseous Diffusion Plants	50,345	56,456	57,580
Non-Defense Environmental Cleanup Programs	50,345	56,456	57,580
Paducah Gaseous Diffusion Plant (D&D Fund)	206,000	240,000	206,518
Pension and Community and Regulatory Support	2,102	2,094	2,099
Uranium Enrichment D&D Programs	208,102	242,094	208,617
Total Paducah Gaseous Diffusion Plant	290,185	326,737	297,447

## DEPARTMENT OF ENERGY

Laboratory Table Pantex Plant FY 2021 (Dollars in Thousands)

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	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Pantex Plant			
B61 Life Extension Program	60,100	55,552	47,000
W76 Life Extension Program	5,000	0	C
W76-2 Modification Program	2,026	0	(
W88 Alteration Program	40,432	34,660	44,685
W80-4 Life Extension Program	27,500	35,410	40,490
W87-1 Modification Program	500	500	4,000
W93	0	0	500
Stockpile Major Modernization	135,558	126,122	136,67
Stockpile Sustainment	107,178	128,129	128,88
Weapons Dismantlement and Disposition	26,000	27,940	30,00
Production Operations	118,826	116,066	119,81
Stockpile Management	387,562	398,257	415,37
High Explosives & Energetics	1,557	3,047	30,40
Primary Capability Modernization	1,557	3,047	30,409
Production Modernization	1,557	3,047	30,40
Engineering and Integrated Assessments	2,212	4,284	3,73
Weapons Technology and Manufacturing Maturation	863	5,396	10,70
Stockpile Research, Technology, and Engineering	3,075	9,680	14,43
Operations of Facilities	65,000	67,000	68,00
Safety and Environmental Operations	13,485	6,915	26,17
Maintenance and Repair of Facilities	96,000	82,000	125,00
Infrastructure and Safety	63,100	62,071	72,36
Capabilities Based Investments	10,743	17,103	8,13
Recapitalization	73,843	79,174	80,49
Operating	248,328	235,089	299,67
21-D-510, HE Synthesis, Formulation, and Production Facility, PX	0	0	31,00
18-D-680, Material Staging Facility, PX	24,000	0	01,00
15-D-301, HE Science & Engineering Facility, PX	24,000	80,000	43,00
Programmatic	24,000	80,000	74,00
I&O - Construction	24,000	80,000	74,00
		315,089	
Infrastructure and Operations	272,328	,	373,67
STA Operations and Equipment	7,317	7,431	7,93
Secure Transportation Asset	7,317	7,431	7,93
Defense Nuclear Security (DNS)	138,903	138,847	143,24
Defense Nuclear Security	138,903	138,847	143,24
Information Technology and Cyber Security	7,572	7,572	7,57
Weapons Activities Programs	818,314	879,923	992,63
Material Disposition	5,100	3,000	6,77
Material Management and Minimization	5,100	3,000	6,77
Proliferation Detection R&D	50	0	
Defense Nuclear Nonproliferation R&D	50	0	
Counterterrorism and Counterproliferation	2,456	2,530	2,60
Nuclear Counterterrorism & Incident Response	2,456	2,530	2,60
Defense Nuclear Nonproliferation Programs	7,606	5,530	9,38
Environment, Health, Safety & Security	10	10	1
Environment, Health, Safety, and Security	10	10	10
Other Defense Activites Programs	10	10	10
Total Pantex Plant	825,930	885,463	1,002,025

# DEPARTMENT OF ENERGY Laboratory Table Pinellas Site FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Pinellas Site			
Legacy Management Activities - Defense	5,545	4,333	4,535
Legacy Management	5,545	4,333	4,535
Other Defense Activites Programs	5,545	4,333	4,535
Total Pinellas Site	5,545	4,333	4,535

# DEPARTMENT OF ENERGY Laboratory Table Portsmouth Gaseous Diffusion Plant FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Portsmouth Gaseous Diffusion Plant			
Legacy Management Activities - Defense	5,600	5,200	5,000
Legacy Management	5,600	5,200	5,000
Other Defense Activites Programs	5,600	5,200	5,000
Safeguards and Security - Defense Environmental Cleanup	15,078	16,490	16,690
Defense Environmental Cleanup Programs	15,078	16,490	16,690
Gaseous Diffusion Plants	50,959	56,629	57,974
Non-Defense Environmental Cleanup Programs	50,959	56,629	57,974
Portsmouth Gaseous Diffusion Plant (D&D Fund)	366,931	367,193	351,854
20-U-401 On-site Waste Disposal Facility	0	10,000	16,500
15-U-408 On-Site Waste Disposal Facility, Portsmouth	41,168	41,102	46,639
Construction - Uranium D&D Fund	41,168	51,102	63,139
Pension and Community and Regulatory Support	1,670	2,013	1,649
Uranium Enrichment D&D Programs	409,769	420,308	416,642
Total Portsmouth Gaseous Diffusion Plant	481,406	498,627	496,306

#### DEPARTMENT OF ENERGY Laboratory Table Princeton Plasma Physics Laboratory FY 2021 (Dollars in Thousands)

FY 2019 FY 2020 FY 2021 Enacted Enacted Request Detail Princeton Plasma Physics Laboratory Assessment Science 0 10 0 0 10 0 Stockpile Research, Technology, and Engineering Weapons Activities Programs 0 10 0 Research - Advanced Scientific Computing Research 385 335 335 Advanced Scientific Computing Research 385 335 335 Research - Fusion Energy Sciences 107,770 83,350 74,499 107,770 83,350 Fusion Energy Sciences 74,499 Workforce Development for Teachers & Scientists 512 0 0 21-SC-75, Princeton Plasma Innovation Center, PPPL 0 0 2,000 21-SC-76, Critical Infrastructure Recovery & Renewal, PPPL 0 0 2,000 20-SC-76, Tritium System Demolition and Disposal, PPPL (20-SC-78) 0 19,400 13,000 Construction - Science Laboratories Infrastructure 0 13,000 23,400 Science Laboratories Infrastructure 0 13,000 23,400 Safeguards and Security - SC 3,358 3,354 3,358 Science Programs 112,021 100,043 101,592 Other Departmental Administration 70 0 0 Departmental Administration Programs 70 0 0 Total Princeton Plasma Physics Laboratory 112,091 100,053 101,592

#### DEPARTMENT OF ENERGY Laboratory Table Princeton Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Princeton Site Office			
Proliferation Detection R&D	170	300	295
Defense Nuclear Nonproliferation R&D	170	300	295
Defense Nuclear Nonproliferation Programs	170	300	295
Program Direction - SC	1,862	1,910	1,950
Science Programs	1,862	1,910	1,950
Total Princeton Site Office	2,032	2,210	2,245

# DEPARTMENT OF ENERGY Laboratory Table Richland Operations Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Richland Operations Office			
Counterterrorism and Counterproliferation	1,804	1,858	2,914
Nuclear Counterterrorism & Incident Response	1,804	1,858	2,914
Defense Nuclear Nonproliferation Programs	1,804	1,858	2,914
Infrastructure Security and Energy Restoration	1,415	3,000	3,539
Cybersecurity, Energy Security, and Emergency Response Programs	1,415	3,000	3,539
Strategic Partnership Projects	100	100	100
Departmental Administration Programs	100	100	100
Environment, Health, Safety & Security	1,000	1,000	1,000
Environment, Health, Safety, and Security	1,000	1,000	1,000
Other Defense Activites Programs	1,000	1,000	1,000
Richland Community and Regulatory Support	10,121	10,121	2,500
Richland	10,121	10,121	2,500
Program Direction - Defense Environmental Cleanup	46,260	45,194	42,977
Defense Environmental Cleanup Programs	56,381	55,315	45,477
Total Richland Operations Office	60,700	61,273	53,030

# DEPARTMENT OF ENERGY Laboratory Table Rocky Flats Site FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Rocky Flats Site			
Legacy Management Activities - Defense	34,846	30,068	27,651
Legacy Management	34,846	30,068	27,651
Other Defense Activites Programs	34,846	30,068	27,651
Closure Sites Administration	2,000	1,900	1,800
Defense Environmental Cleanup Programs	2,000	1,900	1,800
Total Rocky Flats Site	36,846	31,968	29,451

#### DEPARTMENT OF ENERGY Laboratory Table Sandia National Laboratories FY 2021 (Dollars in Thousands)

EndedEndedEndedRequest PathSande National Laboratories240,300221,270198,00W70 2 Multification Program8,0770198,00W70 2 Multification Program3,5410198,00W70 2 Multification Program70,76444,27,30198,00W04 U for Extension Program21,50032,502198,00W04 U for Extension Program21,50032,502198,00W03 U0024,0034,00W03 U0024,0034,00Weecons Elemantement and Diaposition2,00036,0024,00Weecons Elemantement and Diaposition11,44,2811,44,28Stochglie Manatement and Diaposition11,44,2811,44,28Stochglie Management1,144,2811,44,28U for Extension Program11,44,2811,44,28Stochglie Management1,144,2814,44,24U for Extension Program2,0003,00024,25Production Modernization04,1111,11U frame Capability Modernization6,6786,63,386,63,38Production Modernization6,6786,63,386,63,38Production Modernization6,6786,63,386,63,38Production Modernization6,6786,63,386,63,38Capability Modernization6,6786,63,386,63,38Assessments Educion6,6786,63,386,63,38Lemantication Modernization6,6786,63,386,63,59Assessmen		FY 2019	FY 2020	FY 2021
B81 Life Exansion Program         249,300         231,270           W70 2 Modification Program         3.51         0           W83 Alexation Program         70,744         44,971           W83 Alexation Program         71,754         44,971           W84 Alexation Program         21,500         622,380         427,7           W84 Value Extension Program         21,500         622,380         427,7           W83 Standpile Major Modenization         66,697         73,15,600         622,000         224,000           Standpile Major Modenization         2,000         3,600         62,000         3,600         62,000				
W76 Lik Extension Program         3,371         0           W76 Addression Program         3,3641         0           W68 Addression Program         315,500         44,971         3,55,500           W67 - Modification Program         315,500         42,2,389         440,70           W37 - Modification Program         21,500         20,000         90,000           W38 Addression Program         0,00         20,000         3,000           W38 Addression Program         0,00         20,000         3,000         20,000           W38 Addression Program         0,00         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         3,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,000         20,	Sandia National Laboratories			
W76-2 Modification Program         3,541         0           W86 Alteration Program         70,754         44.971         36.353           W60 4 Life Extension Program         21.500         52.680         1000           W03         0         0         24.000         24.000         24.000           W03         0.00         24.000	B61 Life Extension Program	249,300	231,270	198,000
W88 Aleration Program         70,764         44.971         353           W84-L LE Extension Program         315,000         42.389         460.7           W87-L MacRiston Program         21.500         52.930         90.0           W83         0         0         92.42           Stockplik May Modernization         309,455         326.450         335.00           Stockplik May Modernization         309,455         326.450         335.00           Production Operations         309,455         326.450         335.00           Production Operations         30.00         2.2         7.2           Production Operations         11.01.830         1.217.841         1.338.02           High Explosites & Energenetics         0         411         1.11.338.02           Norw-Nucleic Lapbility Modernization         7.03         5.55.7           Production Operation Encident         7.63         5.55.7           Production Modernization         6.64.67         6.3.33         6.65.7           Advanced Simplify Modernization         6.64.76         6.3.33         6.65.7           Advanced Simplify Modernization         6.64.76         6.3.33         6.65.7           Advanced Simultion and Comprising         16.00         16.0	W76 Life Extension Program	8,377	0	0
W80-4 Life Extension Program         315.500         422.389         447.3           W87-1 Modification Program         21.500         52.590         100.0           W83         0         668.972         751.580         505.500           Biockpile Major Modernization         20.00         3300.455         3306.455         3306.455           Biockpile Sustainment         300.452         3306.455         3306.455         3306.455           Vespons Dismantlement and Disposition         2.00         3.000         2.20           Production Operations         114.423         1307.254         1.3386.753           Biochepile Modernization         0         4.11         1.11	W76-2 Modification Program	3,541	0	0
W87 + Modification Program         21,500         52,5950         100,00           W83         0         0         22,000           Stockplis May Modemization         68,872         751,500         500,500           Stockplis Maintement and Disposition         2,000         3,600         22,000           Production Operations         1144,830         12,17,841         13,83,84           High Explosives & Energistics         0         4,411         11,13,33           Tritum and Dispesitic Unnium Enchment         7,83         4,464         4,66,338           Production Operations         5,452         7,997         67,17           Assessment Science         66,788         66,388         66,538         66,538           Production Modemization         5,452         7,997         67,15           Assessment Science         66,786         66,538         66,538         66,538           Englineering and Integrated Assessments         66,787         61,512         62,557         66,557           Advanced Simulation and Computing         110,000         126,000         126,000         126,000         126,000         126,000         126,000         126,000         126,000         126,000         126,000         126,000         126,000<	W88 Alteration Program	70,754	44,971	35,327
W3         0	W80-4 Life Extension Program	315,500	422,389	467,740
Stockpile Mager Modernization         666.972         751.580         90000           Stockpile Sutainment         309.435         302.6400         303.042           Wespons Distriantiferment and Disposition         2.000         3.00.02         2.000           Production Operations         134.423         134.623         134.224           Stockpile Management         1,14.830         1.217.841         1.32.424           High Explositives & Energiscia         0         4.11         1.11.1           Tritium and Domestic Uratium Enrichment         7.03         4.48         4.44           Non-Nuclear Capability Modernization         4.69         6.57.69         6.57.71           Assessment Scienco         66.57.67         61.31.31         6.66.39         6.57.91           Internal Confinement Fluion         63.100         65.57.57         6.55.57	W87-1 Modification Program	21,500	52,950	180,000
Stockpile Sustainment         309,435         328,450         328,450           Weapors Dimanetement and Deposition         34,423         318,624         414,423           Stockpile Management         1,114,830         1,217,844         1,388,54           High Explosive & Encreptics         0         411         11,17           Tritum and Domestic Uranium Enrichment         783         448         44           Non-Nuclear Capability Modernization         4,709         7,738         55,57           Production Modernization         56,457         81,313         88,65           Production Modernization         66,786         65,537         65,557           Assessment Science         66,786         65,557         65,557           Advanced Simulation and Computing         167,314         112,82,83         112,12,12,123           Weapons Technology and Manufacturing Maturation         62,099         78,715         121,123           Stockpile Research, Technology, and Engineering         424,756         474,119         424,22           Operations of Facilities         119,000         120,000         126,00         126,00         126,00         126,00         126,00         126,00         126,00         126,00         126,00         126,00         126,00 <td>W93</td> <td>0</td> <td>0</td> <td>24,000</td>	W93	0	0	24,000
Wespons Bismanitement and Disposition         2.000         3.600         2.0           Production Operations         134.423         136.254         144.23           Stockpie Monagement         1,114.800         1.217.884         1.386.8           High Explosives & Energotics         0         4.11         1.11.7           Primary Capability Modernization         0         4.11         1.11.7           Tritum and Domesite Urasium Entiment         7.83         4.48         4.43           Non-Nuclear Capability Modernization         4.709         7.138         55.57           Production Modernization         6.67.86         65.397         65.57           Assessment Science         66.767         61.313         88.65           Advanced Simulation and Computing         167.314         182.836         151.25           Vespons Technology and Manufacturing Maturation         62.09         7.87.5         152.40           Stockpie Research, Technology and Manufacturing Maturation         62.09         160.00         160.00           Maintenance and Regard Facilities         119.000         19.000         140.00         18.60           Maintenance and Regard Facilities         119.000         19.000         140.60         160.60           Maintenance a	Stockpile Major Modernization	668,972	751,580	905,067
Production Operations         134,423         136,254         142,423           Stockpile Management         1,114,800         1,217,804         1,308,50           High Explorities & Enragetics         0         411         11,17           Primary Capability Modernization         0         411         11,17           Trium and Demesic Unnium Enrichment         783         448         44           Non-Nuclear Capability Modernization         5,492         7,997         67,1           Assessment Science         66,764         63,310         65,657         65,657           Engineering and Integrated Assessments         66,764         83,310         65,657         65,656           Inertial Confinement Fusion         65,497         81,313         866         65,338         65,153           Weapons Technology and Manifecturing Maturation         62,099         78,715         12,010         50,000         46,00         56,010         46,02         56,436         46,432         56,436         46,432         56,436         46,432         56,436         46,432         56,436         46,432         56,436         46,432         56,436         46,432         56,436         46,432         56,436         46,432         56,436         46,433         56,	Stockpile Sustainment	309,435	326,450	339,077
Stockpile Management         1.114.830         1.217.884         1.388.2           High Exploxives & Energetics         0         411         1.11.3           Primary Capability Modernization         783         448         44           Non-Nuclear Capability Modernization         7.93         448         64           Non-Nuclear Capability Modernization         65.780         65.389         55.55           Production Modernization         65.780         65.780         65.65           Engineering and Integrated Assessments         65.747         81.313         86.65           Inertial Confinement Fusion         63.700         65.765         65.65           Advanced Struttation and Computing         616.731         182.858         151.55           Weapons Technology and Manufacturing Maturation         62.099         78.715         121.05           Stockpile Research, Technology and Engineering         42.4765         474.219         482.25           Operations of Facilities         110.000         130.000         126.05           Statey and Environmental Operations         10.068         10.110         96.04           Maintenance and Repair of Facilities         10.001         46.04         35.600         43.04           Non-Statey and Environmental Op	Weapons Dismantlement and Disposition	2,000	3,600	2,000
High Explosives & Energetics         0         411         11.1           Primary Capability Modernization         0         411         11.1           Tritium and Domestic Uranium Enrichment         783         448         44           Non-Nuclear Capability Modernization         7.138         656.         67.0         67.0           Production Modernization         66.786         65.398         65.7         65.6           Engineering and Integrated Assessments         66.747         81.313         86.6         65.457         65.6           Inertial Confinement Fusion         63.100         65.957         65.6         65.457         12.10           Stockpile Research, Technology and Engineering         424.756         474.219         482.2         Operations of Facilities         11.9.000         13.000         12.6.0           Stockpile Research, Technology and Engineering         424.756         474.219         482.2         Operations of Facilities         11.9.000         14.0.00         14.0.00         14.0.00         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0         14.0.0.0 <t< td=""><td>Production Operations</td><td>134,423</td><td>136,254</td><td>142,420</td></t<>	Production Operations	134,423	136,254	142,420
Primary Capability Modernization         0         411         11,7           Titlum and Dornestic Uranium Enrichment         783         448         448           Non-Nuclear Capability Modernization         4,709         7,138         65,07           Production Modernization         5,442         7,997         66,77           Assessment Science         66,786         65,393         85,55           Engineering and Integrated Assessments         65,457         81,313         88,65           Advanced Simulation and Computing         167,314         182,396         161,314           Weapons Technology and Manufacturing Maturation         62,099         78,715         121,01           Stackpike Research, Technology and Engineering         424,756         474,219         442,22           Operations of Facilities         119,000         130,000         126,00           Stackpike Research, Technology, and Engineering         46,445         35,600         430,00           Maintenance and Repair of Facilities         119,000         146,00         140,00         36,00           Infrastructure and Safery         65,436         46,602         59,44         46,445         35,600         430,00         36,00           Infrastructure and Safery         65,436	Stockpile Management	1,114,830	1,217,884	1,388,564
Tritum and Domestic Uranium Enrichment         783         448         447           Non-Nuclear Capability Modernization         4,709         7,138         55,5           Production Modernization         5,492         7,997         67,1           Assessment Science         66,766         65,398         55,5           Engineering and Integrated Assessments         65,457         81,313         88,6           Advanced Simulation and Computing         167,314         182,326         115,3           Weapons Technology and Manufacturing Maturation         62,099         78,715         121,0           Stockplar Research, Technology, and Engineering         424,776         474,219         482,2           Operations of Facilities         110,006         10,110         98,00           Maintenance and Repair of Facilities         110,008         10,110         98,00           Infrastructure and Safety         46,445         35,600         426,75           Capabilities Based Investments         18,991         10,482         16,402           Infrastructure and Repair of Facilities         11,000         19,000         46,60           Infrastructure and Repair of Facilities         11,000         19,000         46,60           Infrastructure and Repair of Facilities	High Explosives & Energetics	0	411	11,700
Non-Nuclear Capability Modernization         4,709         7,138         55,00           Production Modernization         5,492         7,997         67,71           Assessment Science         66,786         66,398         55,71           Engineering and Integrated Assessments         66,477         81,313         86,65           Inertial Confinement Fusion         63,100         65,957         66,65           Advanced Simulation and Computing         167,314         182,836         1121,00           Weapons Technology and Manufacturing Maturation         62,009         78,715         121,00           Stockpile Research, Technology, and Engineering         424,756         474,219         482,22           Operations of Facilities         11,000         130,000         126,60           Stockpile Research, Technology and Engineering         46,445         35,600         43,33           Coperations of Facilities         11,000         19,000         46,60           Infrastructure and Repair of Facilities         11,000         19,000         36,60           Operations         205,504         206,192         241,33           15-0-511, Emergency Operations Center, SNL         0         4,000         36,60           Infrastructure and Agair of Facilities	Primary Capability Modernization	0	411	11,700
Production Modernization         5.492         7.997         67.1           Assessment Science         66.786         65.398         55.7           Engineering and Integrated Assessments         66.767         61.313         88.6           Inertial Confinement Fusion         63.100         65.577         62.6           Advanced Simulation and Computing         167.314         182.836         151.3           Weepons Technology and Manufacturing Maturation         62.099         78.715         121.00           Stockpile Research, Technology, and Engineering         424.756         474.219         482.25           Operations of Facilities         119.000         19.000         46.0           Stockpile Research, Technology, and Engineering         46.445         35.600         43.3           Capabilities Based Investments         18.991         10.482         16.4           Recapitalization         65.436         46.082         59.4           Operating         205.504         205.192         221.3           15-De11, Energency Operations Center, SNL         0         4.000         36.0           Infrastructure and Operations         205.504         209.192         277.7           STA Operations and Equipment         47.597         63.243	Tritium and Domestic Uranium Enrichment	783	448	458
Assessment Science         66,786         65,398         55,75           Engineering and Integrated Assessments         66,457         81,313         88,8           Inertial Confinement Fusion         63,100         65,957         66,65           Advanced Simulation and Computing         167,314         182,836         161,337           Weepoors Technology and Manufacturing Maturation         62,099         78,715         121,0           Stockpile Research, Technology, and Engineering         424,756         474,219         422,256           Operations of Facilities         110,000         130,000         126,00           Stockpile Research, Technology and Engineering         424,756         474,219         422,356           Operations of Facilities         110,000         130,000         46,00           Infrastructure and Reard of Facilities         110,000         140,00         46,002           Infrastructure and Safety         46,445         35,600         43,00           Capabilities Based Investments         16,936         46,002         564,00           Infrastructure and Operations Center, SNL         0         4,000         36,00           Infrastructure and Operations         205,504         20,919,22         27,73           STA Operations and Equipme	Non-Nuclear Capability Modernization	4,709	7,138	55,000
Engineering and Integrated Assessments         66,457         81,313         88.0           Inential Confinement Fusion         63,100         65,857         65,65           Advanced Simulation and Computing         167,314         182,853         65,65           Meapons Technology and Marufacturing Maturation         62,099         77,715         122,00           Stockpile Research, Technology, and Engineering         424,756         474,219         482,23           Operations of Facilities         119,000         130,000         426,65           Stockpile Research, Technology, and Engineering         424,756         474,219         482,23           Operations of Facilities         119,000         19,000         46,64           Infrastructure and Safety         46,445         35,600         43,00           Capabilities Based Investments         18,991         10,462         16,60           Infrastructure and Safety         20,55,504         206,5192         24,13,13           15-Def11, Emergency Operations Center, SNL         0         40,000         36,00           Infrastructure and Operations         20,55,504         200,912         272,73,73           STA Operations and Equipment         47,597         63,243         87,44           Infrastructure and Ope	Production Modernization	5,492	7,997	67,158
Inertial Confinement Fusion         63,100         65,957         65,65           Advanced Simulation and Computing         167,314         182,836         151,33           Weapons Technology and Manufacturing Maturation         62,099         78,715         121,03           Stockpile Research, Technology, and Engineering         424,756         474,219         482,23           Operations of Facilities         119,000         130,000         126,00           Stockpile Research, Technology, and Engineering         10,068         10,110         9,60           Maintenance and Repair of Facilities         11,000         19,000         46,00           Infrastructure and Safety         46,445         35,600         443,00           Capabilities Based Investments         18,991         10,482         16,445           Recapitalization         65,438         46,082         59,44           Operating         205,504         209,192         247,55           IsO - Construction         0         4,000         36,00	Assessment Science	66,786	65,398	55,735
Advanced Simulation and Computing         167,314         182,336         151,3           Weapons Technology and Manufacturing Maturation         62,099         78,715         121,0           Stockpile Research, Technology, and Engineering         424,756         474,219         482,23           Operations of Facilities         119,000         106,68         10,110         68,64           Stately and Environmental Operations         100,68         10,110         98,000         46,64           Maintenance and Repair of Facilities         11,000         19,000         46,00         46,002         205,000         43,00         66,436         46,002         59,44         66,436         46,002         59,44         66,436         46,002         204,13         15,0-61,1,Emergency Operations Center, SNL         0         4,000         36,	Engineering and Integrated Assessments	65,457	81,313	88,601
Weapons Technology and Manufacturing Maturation         62,099         78,715         121,0           Stockpile Research, Technology, and Engineering         424,756         474,219         482,2           Operations of Facilities         119,000         130,000         126,0           Safety and Environmental Operations         10,068         10,110         98,6           Maintenance and Repair of Facilities         11,000         19,000         46,64           Infrastructure and Safety         46,445         35,600         43,0           Capabilities Based Investments         18,991         10,482         16,6           Recapitalization         65,436         46,082         524,13           Operating         205,504         205,192         224,13           15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           Infrastructure and Operations         205,504         209,192         277,3           STA Operations and Equipment         47,597         63,243         86,7           Defense Nuclear Security (DNS)         65,884         67,08         67,1           Defense Nuclear Security (DNS)         65,884         67,28         2,966,511 <td>Inertial Confinement Fusion</td> <td>63,100</td> <td>65,957</td> <td>65,644</td>	Inertial Confinement Fusion	63,100	65,957	65,644
Stockpile Research, Technology, and Engineering         424,756         474,219         482,23           Operations of Facilities         119,000         130,000         126,00           Safety and Environmental Operations         10,068         10,110         98,8           Maintenance and Repair of Facilities         11,000         19,000         46,00           Infrastructure and Safety         46,445         35,600         43,00           Capabilities Based Investments         18,991         10,482         59,4           Operating         205,504         205,192         241,3           15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           Infrastructure and Operations         205,504         209,192         227,7           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         67,71           Information Exchology and Cyber Security         24,888         26,684         22,96,611           Informational Nuclear Security         13,868         12,127         1	Advanced Simulation and Computing	167,314	182,836	151,310
Operations of Facilities         119,000         130,000         126,00           Safety and Environmental Operations         10,068         10,110         9,86           Maintenance and Repair of Facilities         11,000         19,000         46,00           Intrastructure and Safety         46,445         35,600         44,00           Capabilities Based Investments         18,991         10,482         16,40           Recapitalization         65,436         46,042         25,40           Operating         205,504         205,192         241,5           15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           Infrastructure and Operations         205,504         209,192         277,7           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         67,71           Information Exclusiogy and Cyber Security         24,888         26,888         26,868           Weapons Activities Programs         11,880,851         2,066,511         2,396,61	Weapons Technology and Manufacturing Maturation	62,099	78,715	121,000
Safety and Environmental Operations         10.068         10,110         9.8           Maintenance and Repair of Facilities         11,000         19,000         46,64           Infrastructure and Safety         46,445         35,600         43,0           Capabilities Based Investments         18,991         10,482         16,4           Recapitalization         65,436         46,042         59,4           Operating         205,504         205,192         241,3           1 5-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           I&O - Construction         0         4,000         36,0           I&Fo-St11, Emergency Operations Center, SNL         0         4,000         36,0           I&SO - Construction         0         4,000         36,0           I&More Secure Transportation Asset         27,73         STA Operations and Equipment         47,597         63,243         87,4           Defense Nuclear Security (DNS)         66,884         67,088         67,08         67,048         67,048         67,048         67,048         67,048         67,048         67,048         67,048         67,048         67,048         67,048	Stockpile Research, Technology, and Engineering	424,756	474,219	482,290
Maintenance and Repair of Facilities         11,000         19,000         40,000           Infrastructure and Safety         46,445         35,600         43,00           Capabilities Based Investments         18,991         10,482         16,4           Recapitalization         65,436         46,082         59,4           Operating         205,504         205,192         241,5           15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           Infrastructure and Operations         205,504         209,192         227,7           STA Operations and Equipment         27,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,844         67,088         67,1           Information Technology and Cyber Security         24,888         26,884         26,88           Weapons Activities Programs         18,88,951         2,066,511         2,396,82           International Nuclear Security         13,858         14,646         13,366           Nuclear Security         24,888         26,851         2,396,82           In	Operations of Facilities	119,000	130,000	126,000
Infrastructure and Safety         46,445         35,600         42,00           Capabilities Based Investments         18,991         10,482         16,4           Recapitalization         65,436         46,082         59,4           Operating         205,504         205,192         241,3           15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           Inforstructure and Operations         205,504         209,192         277,3           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         67,1           Information Technology and Cyber Security         24,888         26,888         26,88           International Nuclear Security         13,856         12,127         13,56           International Radiological Security         14,889,91         2,066,511         2,396,82           International Radiological Security         14,858         14,646         13,68           International Radiological Security         14,858         14,646         13,68	Safety and Environmental Operations	10,068	10,110	9,895
Capabilities Based Investments         18,891         10,482         16,482           Recapitalization         65,436         46,082         59,4           Operating         205,504         205,192         241,3           15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           16-O - Construction         0         4,000         36,0           16-C - Construction         0         4,000         36,0           16-C - Construction         0         4,000         36,0           16-C - Construction         0         4,000         36,0           16-RO - Construction         0         4,000         36,0           16-RO - Construction         0         4,000         36,0           16-RO - Construction         205,504         209,192         277,3           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         26,888         26,888           Weapons Activities Programs         13,885         12,217         13,85	Maintenance and Repair of Facilities	11,000	19,000	46,000
Recapitalization         65,436         46,082         54,00           Operating         205,504         205,192         241,3           15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           1&O - Construction         0         4,000         36,0           1&FD - Forther and Operations         205,504         209,192         277,3           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         67,1           Information Technology and Cyber Security         1,888,951         2,066,511         2,396,61           Weapons Activities Programs         1,888,951         2,066,511         2,396,61         2,396,61         2,396,61         2,396,61         2,396,61         2,396,61         2,396,61         2,396,61         2,396,61         2,396,61	Infrastructure and Safety	46,445	35,600	43,050
Operating         205,504         205,192         241,3           15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0           1&O - Construction         0         4,000         36,0           1&O - Construction         0         4,000         36,0           1&O - Construction         0         4,000         36,0           1         AD operations         205,504         209,192         277,3           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         67,1           Information Technology and Cyber Security         24,888         26,888         26,888         26,888           Weapons Activities Programs         1,888,951         2,066,511         2,396,6         14,646         13,65           International Nuclear Security         13,858         12,127         13,65         14,646         13,65           Nuclear Smuggling Detection and Deterrence         10,128         7,519         7,55         5,55         5,557         47,55	Capabilities Based Investments	18,991	10,482	16,410
15-D-611, Emergency Operations Center, SNL         0         4,000         36,0           Mission Enabling         0         4,000         36,0	Recapitalization	65,436	46,082	59,460
Mission Enabling         0         4,000         36,0           I&O - Construction         0         4,000         36,0           Infrastructure and Operations         205,504         209,192         277,3           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         67,1           Defense Nuclear Security         65,884         67,088         67,1           Information Technology and Cyber Security         24,888         26,688         26,68           Weapons Activities Programs         1,888,951         2,066,511         2,396,6           International Nuclear Security         13,858         12,127         13,65           Domestic Radiological Security         14,858         14,646         13,65           Nuclear Smuggling Detection and Deterrence         10,128         7,519         7,55           Global Material Security         61,397         52,579         47,55           Conversion (formerly HEU Reactor Conversion)         0         600         65           Material Disposition         2,415         0         55	Operating	205,504	205,192	241,355
Mission Enabling         0         4,000         36,0           I&O - Construction         0         4,000         36,0           Infrastructure and Operations         205,504         209,192         277,3           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         67,1           Defense Nuclear Security         65,884         67,088         67,1           Information Technology and Cyber Security         24,888         26,688         26,68           Weapons Activities Programs         1,888,951         2,066,511         2,396,6           International Nuclear Security         13,858         12,127         13,85           Domestic Radiological Security         14,858         14,646         13,65           Nuclear Smuggling Detection and Deterrence         10,128         7,519         7,55           Global Material Security         61,397         52,579         47,55           Conversion (formerly HEU Reactor Conversion)         0         600         65           Material Disposition         2,415         0         55		0	4,000	36,000
Infrastructure and Operations         205,504         209,192         277,33           STA Operations and Equipment         47,597         63,243         87,4           Secure Transportation Asset         47,597         63,243         87,4           Defense Nuclear Security (DNS)         65,884         67,088         67,1           Defense Nuclear Security         65,884         67,088         67,1           Information Technology and Cyber Security         24,888         26,888         26,88           Weapons Activities Programs         1,888,951         2,066,511         2,396,85           International Nuclear Security         13,858         12,127         13,856           Domestic Radiological Security         14,858         14,646         13,656           Nuclear Smuggling Detection and Deterrence         10,128         7,519         7,555           Global Material Security         61,397         52,579         47,557           Conversion (formerly HEU Reactor Conversion)         0         600         66           Material Disposition         2,415         0         52,579		0	4,000	36,000
STA Operations and Equipment       47,597       63,243       87,4         Secure Transportation Asset       47,597       63,243       87,4         Defense Nuclear Security (DNS)       65,884       67,088       67,18         Defense Nuclear Security       65,884       67,088       67,18         Information Technology and Cyber Security       24,888       26,888       26,88         Weapons Activities Programs       1,888,951       2,066,511       2,396,8         International Nuclear Security       13,858       12,127       13,85         Domestic Radiological Security       13,858       14,646       13,65         Nuclear Smuggling Detection and Deterrence       10,128       7,519       7,55         Global Material Security       61,397       52,579       47,55         Material Disposition       2,415       0       55	I&O - Construction	0	4,000	36,000
STA Operations and Equipment       47,597       63,243       87,4         Secure Transportation Asset       47,597       63,243       87,4         Defense Nuclear Security (DNS)       65,884       67,088       67,18         Defense Nuclear Security       65,884       67,088       67,18         Information Technology and Cyber Security       24,888       26,888       26,88         Weapons Activities Programs       1,888,951       2,066,511       2,396,8         International Nuclear Security       13,858       12,127       13,85         Domestic Radiological Security       13,858       14,646       13,65         Nuclear Smuggling Detection and Deterrence       10,128       7,519       7,55         Global Material Security       61,397       52,579       47,55         Material Disposition       2,415       0       55	Infrastructure and Operations	205,504	209,192	277,355
Defense Nuclear Security (DNS)65,88467,08867,1Defense Nuclear Security65,88467,08867,1Defense Nuclear Security65,88467,08867,1Information Technology and Cyber Security24,88826,88826,88Weapons Activities Programs1,888,9512,066,5112,396,8International Nuclear Security13,85812,12713,8Domestic Radiological Security14,85814,64613,6Nuclear Smuggling Detection and Deterrence10,1287,5197,5Global Material Security61,39752,57947,5Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,41505	-			87,439
Defense Nuclear Security (DNS)65,88467,08867,1Defense Nuclear Security65,88467,08867,1Defense Nuclear Security65,88467,08867,1Information Technology and Cyber Security24,88826,88826,88Weapons Activities Programs1,888,9512,066,5112,396,8International Nuclear Security13,85812,12713,8Domestic Radiological Security14,85814,64613,6Nuclear Smuggling Detection and Deterrence10,1287,5197,5Global Material Security61,39752,57947,5Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,41505	Secure Transportation Asset	47,597	63,243	87,439
Defense Nuclear Security65,88467,08867,1Information Technology and Cyber Security24,88826,88826,8Weapons Activities Programs1,888,9512,066,5112,396,8International Nuclear Security13,85812,12713,8Domestic Radiological Security22,55318,28712,5International Radiological Security14,85814,64613,6Nuclear Smuggling Detection and Deterrence10,1287,5197,5Global Material Security61,39752,57947,5Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,41505	Defense Nuclear Security (DNS)	65,884	67,088	67,175
Information Technology and Cyber Security24,88826,88826,888Weapons Activities Programs1,888,9512,066,5112,396,8International Nuclear Security13,85812,12713,858Domestic Radiological Security22,55318,28712,553International Radiological Security14,85814,64613,65Nuclear Smuggling Detection and Deterrence10,1287,5197,55Global Material Security61,39752,57947,55Conversion (formerly HEU Reactor Conversion)060085Material Disposition2,415055				67,175
Weapons Activities Programs1,888,9512,066,5112,396,8International Nuclear Security13,85812,12713,85Domestic Radiological Security22,55318,28712,55International Radiological Security14,85814,64613,65Nuclear Smuggling Detection and Deterrence10,1287,5197,55Global Material Security61,39752,57947,55Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,415055	Information Technology and Cyber Security			26,888
International Nuclear Security13,85812,12713,858Domestic Radiological Security22,55318,28712,5International Radiological Security14,85814,64613,6Nuclear Smuggling Detection and Deterrence10,1287,5197,5Global Material Security61,39752,57947,5Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,41505				2,396,869
Domestic Radiological Security22,55318,28712,5International Radiological Security14,85814,64613,6Nuclear Smuggling Detection and Deterrence10,1287,5197,5Global Material Security61,39752,57947,5Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,41505				13,853
International Radiological Security14,85814,64613,6Nuclear Smuggling Detection and Deterrence10,1287,5197,5Global Material Security61,39752,57947,5Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,41505	-			12,564
Nuclear Smuggling Detection and Deterrence10,1287,5197,5Global Material Security61,39752,57947,5Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,415055				13,613
Global Material Security61,39752,57947,5Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,415055				7,554
Conversion (formerly HEU Reactor Conversion)06008Material Disposition2,41505				47,584
Material Disposition 2,415 0 5	-			850
				500
	Material Management and Minimization	2,415	600	1,350

#### DEPARTMENT OF ENERGY Laboratory Table Sandia National Laboratories FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
Nonroliferation & Arma Control	Enacted	Enacted	Request Detail 9,808
Nonproliferation & Arms Control	8,111	9,900	,
National Technical Nuclear Forensics R&D	0	0	1,503
Proliferation Detection R&D	40,287	38,774	26,718
Nuclear Detonation Detection	105,528	80,232	90,020
Nonproliferation Fuels Development	517	0	0
Nonproliferation Stewardship Program	0	750	1,000
Defense Nuclear Nonproliferation R&D	146,332	119,756	117,738
Counterterrorism and Counterproliferation	43,182	48,476	50,415
Nuclear Counterterrorism & Incident Response	43,182	48,476	50,415
Defense Nuclear Nonproliferation Programs	261,437	231,311	228,398
Program Direction - National Nuclear Security Administration	22,878	24,623	23,481
Federal Salaries and Expenses Programs	22,878	24,623	23,481
Research - Advanced Scientific Computing Research	17,331	14,920	12,455
Advanced Scientific Computing Research	17,331	14,920	12,455
Research - Basic Energy Sciences	28,219	26,900	26,128
Basic Energy Sciences	28,219	26,900	26,128
Biological & Environmental Research	11,149	10,160	6,639
Research - Fusion Energy Sciences	1,265	1,669	1,614
Fusion Energy Sciences	1,265	1,669	1,614
Research - High Energy Physics	100	0	50
High Energy Physics	100	0	50
Workforce Development for Teachers & Scientists	130	0	0
Science Programs	58,194	53,649	46,886
Bioenergy Technologies	7,613	7,113	1,975
Building Technologies	0	1,100	0
Vehicle Technologies	13,000	13,000	4,000
Strategic Programs	750	300	0
Geothermal Technologies	5,720	2,981	775
Solar Energy Technologies	10,918	6,179	6,797
Water Power Technologies	7,608	7,779	2,310
Wind Energy Technologies	7,254	8,769	3,647
Hydrogen and Fuel Cells Technologies	7,542	9,135	3,000
Energy Efficiency and Renewable Energy Programs	60,405	56,356	22,504
Transmission Reliability and Resilience	3,812	2,500	2,500
Resilient Distribution Systems	4,379	2,100	2,100
Energy Storage Research	20,156	20,500	21,000
Energy Storage	20,156	20,500	21,000
Transformer Resilience and Advanced Components	525	525	550
Transmission Permitting and Technical Assistance	388	100	100
Electricity Programs	29,260	25,725	26,250
Cybersecurity for Energy Delivery Systems	1,600	1,800	2,123
Infrastructure Security and Energy Restoration	1,125	11,150	13,154
Cybersecurity, Energy Security, and Emergency Response Programs	2,725	12,950	15,277
Carbon Capture Utilization and Storage	350	812	459
Advanced Energy Systems	250	0	0
Cross Cutting Research	2,495	0	0
Advanced Coal Energy Systems & CCUS	3,095	812	459
Unconventional Fossil Energy from Petroleum - Oil Technologies	1,800	1,800	665
Natural Gas Technologies Research	566	502	171
Strategic Petroleum Reserve Management	3,652	3,294	3,822
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## DEPARTMENT OF ENERGY Laboratory Table Sandia National Laboratories FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Fossil Energy	9,113	6,408	5,117
Crosscutting Technology Development	1,868	1,875	1,87
Energy Innovation Hub for Modeling and Simulation	978	0	
Nuclear Science User Facilities	0	50	50
NEAMS Joint Modeling and Simulation Program	100	0	(
Joint Modeling and Simulation Program	0	100	10
Nuclear Energy Enabling Technologies	2,946	2,025	2,02
Light Water Reactor Sustainability	1,285	1,285	82
Advanced Reactor Technologies	175	560	2,200
Reactors Concepts RD&D	1,460	1,845	3,02
Advanced Reactors Safeguards	0	4,000	2,00
Advanced Reactors Demonstration Program	0	4,000	2,00
Program Direction - Nuclear Energy	0	15	
International Nuclear Energy Cooperation	15	0	
STEP R&D	4,760	4,760	
Fuel Cycle Research and Development	22,490	0	
Fuel Cycle Laboratory R&D	0	1,024	50
Used Nuclear Fuel Disposition R&D	0	19,000	19,00
Integrated Waste Management System	0	4,750	
Fuel Cycle Research and Development FCRD	22,490	24,774	19,50
Nuclear Energy Programs	31,671	37,419	26,55
Other Departmental Administration	552	175	17
Departmental Administration Programs	552	175	17
Environment, Health, Safety & Security	1,210	1,210	1,21
Environment, Health, Safety, and Security	1,210	1,210	1,21
Other Defense Activites Programs	1,210	1,210	1,21
Sandia National Laboratory (SNL)	2,600	2,652	4,86
NNSA Sites and Nevada Off-Sites	2,600	2,652	4,86
Defense Environmental Cleanup Programs	2,600	2,652	4,86
otal Sandia National Laboratories	2,368,996	2,518,989	2,797,57

# DEPARTMENT OF ENERGY Laboratory Table Savannah River National Laboratory FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Savannah River National Laboratory	Lindeled	Lindled	Request Detail
Research - Basic Energy Sciences	420	410	410
Basic Energy Sciences	420	410	410
Biological & Environmental Research	150	150	150
Research - Fusion Energy Sciences	0	400	400
Fusion Energy Sciences	0	400	400
Science Programs	570	960	960
Hydrogen and Fuel Cells Technologies	1,344	1,628	500
Energy Efficiency and Renewable Energy Programs	1,344	1,628	500
Transmission Reliability and Resilience	125	0	0
Resilient Distribution Systems	125	0	0
Transformer Resilience and Advanced Components	125	0	0
Electricity Programs	375	0	0
Versatile Advanced Test Reactor	0	500	0
Reactors Concepts RD&D	0	500	0
Fuel Cycle Research and Development	220	0	0
Fuel Cycle Research and Development FCRD	220	0	0
Nuclear Energy Programs	220	500	0
Other Departmental Administration	60	0	0
Departmental Administration Programs	60	0	0
Total Savannah River National Laboratory	2,569	3,088	1,460

# DEPARTMENT OF ENERGY Laboratory Table Savannah River Operations Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Savannah River Operations Office			
Tritium and Domestic Uranium Enrichment	1,159	0	1,987
Production Modernization	1,159	0	1,987
Weapons Activities Programs	1,159	0	1,987
Nuclear Material Removal	1,496	150	350
Material Disposition	574	100	500
Material Management and Minimization	2,070	250	850
99-D-143, Mixed Oxide Fuel Fabrication Facility, SRS	233	0	0
Nonproliferation Construction	233	0	0
Defense Nuclear Nonproliferation Programs	2,303	250	850
Program Direction - National Nuclear Security Administration	6,971	7,899	8,519
Federal Salaries and Expenses Programs	6,971	7,899	8,519
Infrastructure Security and Energy Restoration	400	5,000	5,898
Cybersecurity, Energy Security, and Emergency Response Programs	400	5,000	5,898
Fuel Cycle Research and Development	3,996	0	0
Used Nuclear Fuel Disposition R&D	0	1,600	1,500
Integrated Waste Management System	0	2,900	0
Fuel Cycle Research and Development FCRD	3,996	4,500	1,500
Nuclear Energy Programs	3,996	4,500	1,500
Strategic Partnership Projects	6,700	6,700	6,700
Departmental Administration Programs	6,700	6,700	6,700
SR Community and Regulatory Support	11,249	11,249	4,989
Savannah River Sites	11,249	11,249	4,989
Program Direction - Defense Environmental Cleanup	44,080	44,410	41,280
Safeguards and Security - Defense Environmental Cleanup	163,357	174,152	171,211
Defense Environmental Cleanup Programs	218,686	229,811	217,480
Total Savannah River Operations Office	240,215	254,160	242,934

# DEPARTMENT OF ENERGY Laboratory Table Savannah River Site FY 2021 (Dollars in Thousands)

PY 2019         PY 2020         PY 2021         PY 2021           branch         Franker         Request Detail           ball Line Exension Program         5.000         3.000         6.000           W76-2 Modification Program         3.011         0         0         0           W76-2 Modification Program         3.011         0 <td< th=""><th></th><th colspan="2"></th></td<>				
issuants         issuants           Bél Life Edinision Program         6.000         0.000           W76 Lie Extension Program         6.001         0           W76 Lie Extension Program         8.03         0         0           W78 Lie Extension Program         8.03         2.228         2.868           W478 Lie Extension Program         0         0.00         2.000           W48 Lif Extension Program         0         0.00         2.000           Stockpile Mondemmation         10.074         6.228         2.816           Stockpile Mondemmation         2.00         3.513         3.513           Stockpile Mondemmation         7.749         2.00.00         2.00.00           2.10 - 0.11, Surannant Roderization         7.7410         410.455         441.866           Suranne Roder Hubraine Moderization         7.7410         410.455         441.866           Production Moderization         7.7410         410.455         441.866           Production Moderization         7.7410         410.455         441.866           Production Moderization         7.7410         410.453         441.866           Production Moderization         7.640         410.453         441.866           Production Moderiza				
Bit Lie Extension Program         5.000         3.000         6.500           W76 2 MoRfactor Program         3.01         0         0           W76 2 MoRfactor Program         1.850         2.728         2.8265           W80 1 MoRfactor Program         0         500         20.000         500         20.000         500         20.000         500         20.000         500         20.000         500         20.000         500         20.000         500         20.000         500         20.000         500         20.000         500         20.000         500         20.001         20.011         20.013         20.013         21.011         80.001         76.410         410.488         441.866         Phrancy Cashify Modernization         76.410         410.488         441.866         Phrancy Cashify Modernization         76.410         410.488         441.866         71.610         410.488         441.866         71.610         410.488         441.866         71.610         410.488         441.866         71.610         410.488         441.866         71.610         410.488         441.866         71.610         410.488         441.866         71.610         40.048         441.866         71.610         70.000         1.600         1.600		Enacted	Enacted	Request Detail
MYRE WYRE WYRE WYRE Modification Program3.01100WYRE WYRE WYRE WYRE WYRE Modification Program8.1632.7282.818WYRE Modification Program04.0302.0100Stockple Konstainment10.6472.3282.818Stockple Konstainment36.6514.6384.1227Wenpoin Damatement and Dispusition5.0002.4.7192.81332.6.133Stockple Konstainment7.4.104.10.4812.6.0002.1.511.Storwam River Planonium Nocemations74.1014.10.4814.4.1866Planonium Konstaination74.1014.10.4814.4.1866Planonium Konstaination74.1014.10.4814.4.1866Planonium Konstaination74.1014.0.4814.6.186Planonium Konstaination74.1014.0.4814.6.186Planonium Konstaination74.4104.0.4814.6.186Planonium Konstaination74.4104.0.4814.6.186Planonium Konstaination74.4104.0.4814.6.186Planonium Konstaination1.5.653.5.007.000Assessments3.6.653.5.007.0003.6.200Assessments3.6.654.0.001.6.001.6.00Stockple Research Re				
W76 2 Modification Program6.1300W76 2 Modification Program00.000Stockple Mater Modernization10.6742.2685Waynon Sbinamternert and Disposition50.68646.884Waynon Sbinamternert and Disposition50.0660Production Operations27.17428.059Stockple Mangement72.74728.059Stockple Mangement72.74728.059Stockple Mangement72.74728.059Stockple Mangement74.410441.986Production Operations74.410441.986Production Modernization74.410441.986Production Modernization76.41045.93Vareason Extreme Materia76.80075.000Stockple Research, Technology and Advanction Modernization76.41075.000Operations o Facilities76.9176.9176.92Materia Mangement76.9176.90075.000Stockple Research, Technolog	-		,	
W80-L Life Extension Program1.8502.7282.685W80-L Life Extension Program06.000.000Stockpile Nutrationment3.6,654.6,8841.227Warpons Dimentenest and Disposition5.009.609.000Production Operations24.71922.81325.139Stockpile Management72.4798.20.900.60.91Savarent River Putorium Operations76.410410.4580.200002.10-511, Savarent River Putorium Moderization76.410410.45844.1866Primary Capability Moderization76.410410.45848.044Putorium Moderization76.41045.98448.044Primary Capability Moderization76.41045.98448.044Production Moderization76.41045.98448.044Production Moderization76.41045.98448.044Production Moderization76.41045.98448.044Production Moderization76.41045.98448.045Production Moderization76.41045.98448.045Production Moderization1.563.5007.000Assessment Science1.563.5007.000Sockpile Research Technology and Munafacturing Maturation5.4645.730Sockpile Research Technology and Environmental Operations8.6123.100Sockpile Research Technology and Environmental Operations4.6127.000Infrastructure and Stepsile7.5577.6887.750Sockpile Research Technology and Operations	-			
WB71 Modification Program050020.000Stockple Mun Modernization10.0746.22829.105Stockple Statinament6.60841.227Wepons Diamatement and Disposition20.000650900Poduction Operations24,71928.10325.139Stockple Statinament72,440410.45820.000Stockple Statinament72,440410.458441.856Stockple Statinament75,410410.458441.856Putronium Modernization75,410410.458441.856Putronium Modernization75,410410.458441.856Putronium Modernization75,410410.458451.700Prinary Casability Modernization75,410410.451441.856Tritum and Denestic Unrum Enrichment49.08895.89448.994Poduction Modernization75,410410.451451.700Prinary Casability Modernization75.410410.451451.700Production Modernization15.645.7337.500Newsports Enchronental Operations8.6109.17002.700Stockple Research, Technology and Munduction Maturation5.445.7337.500Stockple Research, Technology and Ingrineening6.60211.0534.501Operations of Facilities9.00092.00092.00092.000Operations of Facilities9.0119.0207.500Stockple Research, Technology and Munduction Maturation7.51115.50Operations of Facilities9.02	-			
Stockpile Major Modernization         10,674         6.228         22,185           Stockpile Sustainment         36.565         64,585         44,227           Waopons Dimmentement and Disposition         500         650         650           Production Operations         24,719         28,133         25,133           Stavanish Neer Plutonium Operations         76,410         410,458         400,000           21-0-511, Swannah Neer Plutonium Modernization         76,410         410,458         441,896           Swannah Neer Plutonium Modernization         76,410         410,458         441,896           Plutonium Modernization         76,410         410,458         448,896           Production Modernization         76,410         450,030         2,700           Assessment Soence         0         1,800         4,500         3,700           Desponse Technology and Engineering and Manufacturing Manu	W80-4 Life Extension Program		2,728	2,685
Stockpile Sustainment38,85646,89841,227Weapons Demaintement and Disposition500600500Production Operations24,79128,19355,193Stockpile Manapement72,74982,05960,601Swannah River Plutonium Operations76,410410,458200,00021-0-511, Swannah River Plutonium Modernization76,410410,458441,896Plutonium Modernization76,410410,458448,986Plutonium Modernization76,410410,45848,984Plutonium Modernization76,410410,45848,984Plutonium Modernization76,410410,45848,984Plutonium Modernization76,410410,45848,984Plutonium Modernization76,410410,45848,984Plutonium Modernization76,410410,45848,984Plutonium Modernization76,410410,45848,984Plutonium Modernization15,548449,98445,1700Assessment Science01,8009,0002,000Stockpile Research, Technology and Munutchuring Maturation5,4485,7337,500Stockpile Research, Technology and Stanutchuring Maturation4,8491,5502,200Stockpile Research, Technology and Stanutchuring Maturation1,6102,2002,7000Receptalization17,61116,2002,7002,7000Receptalization12,52814,91916,52814,9191Horastroution and Starcy7,5377,6887	W87-1 Modification Program	0	500	20,000
Weapons Diamanitement and Disposition500650650Productor Operations24,71928,19326,193Survaniah River Plutonium Operations76,410410,458200,00021-D-511, Survaniah River Plutonium Processing Facility, SRS00241,886Survaniah River Plutonium Modernization76,410410,458441,886Plutonium Modernization76,410410,458441,886Primary Capability Modernization76,410410,458441,886Primary Capability Modernization76,410410,458441,886Production Modernization426,848469,442451,700Production Modernization125,488469,442451,700Production Modernization15,853,5002,700Engineering and Integrated Assessments1,3583,5002,700Stockple Research, Technology, and Engineering6,8159,17048,125Operations of Facilities34,00031,5003,5001,550Operations of Facilities34,00032,0001,5000Infrastructure and Stefy7,61116,0202,7000Operating152,928143,19022,700Programmatic7,5377,6887,641Programmatic16,022,70002,7000Infrastructure and Stefy7,5377,6887,648Programmatic16,022,70002,7000Programmatic7,5377,6887,648Programmatic16,023,2567,768 <td>Stockpile Major Modernization</td> <td>10,674</td> <td>6,228</td> <td>29,185</td>	Stockpile Major Modernization	10,674	6,228	29,185
Production Operations         24,719         28,193         25,139           Stocklich Management         72,749         82,059         68,000           Savannah River Plutonium Operations         76,410         410,658         69,000           21-D-511, Savannah River Plutonium Operations         76,410         410,658         441,886           Plutonium Modernization         76,410         410,658         441,886           Plutonium Modernization         76,410         410,658         448,886           Plutonium Modernization         76,410         410,658         448,886           Primary Casability Modernization         76,410         410,658         448,886           Primary Casability Modernization         76,410         410,658         448,886           Primary Casability Modernization         128,88         48,804         48,804           Production Modernization         128,68         49,602         11,600         15,600           Assessment Science         0         1,800         15,600         27,000         27,000         27,000         27,000         27,000         27,000         15,500         11,650         36,500         31,000         56,000         16,010         32,500         31,000         27,500         27,500	Stockpile Sustainment	36,856	46,988	41,227
Slockpile Management72,74982,05996,051Swannah River Plutonium Operations76,410410,458620,000210-511, Swannah River Plutonium Modemization76,410410,458441,896Plutonium Modemization76,410410,458441,896Plutonium Modemization76,410410,458441,896Plutonium Candemization76,410410,458441,896Tritum and Domestic Unnoum Enrichment40,08896,942531,700Assessemit Science01.0507,7350Stockpile Research, Technology and Manufacturing Maturation5,465,7537,7350Stockpile Research, Technology, and Engineering6,8159,17048,612Operations of Facilities42,00092,00092,000Stockpile Research, Technology, and Manufacturing Maturation6,8159,1708,612Mainterance and Research Technology, and Engineering6,8159,1708,612Mainterance and Research Technology, and Engineering15,0209,2009,000Intrastructure and Safety17,61115,70022,700Recapitalization17,61116,0203,0209,000Interastructure and Safety17,61116,02027,000Recapitalization15,29214,91,9016,85818-DeGO, Tritum Finathing Facility, SRS0027,00014-Defores Nuclear Security7,5377,6887,84114-Defores Nuclear Security7,6377,6887,842International Nuclear Sec	Weapons Dismantlement and Disposition	500	650	500
Savannah River Plutonium Operations         76.410         410.458         200,000           21-D-511, Savannah River Plutonium Processing Facility, SRS         0         0         0         241.896           Savannah Kiver Plutonium Modernization         76.410         410.458         441.896           Pritung Capability Modernization         76.410         410.458         448.896           Pritung Capability Modernization         76.410         410.458         488.844           Production Modernization         76.400         410.896         58.984         488.844           Production Modernization         76.400         410.896         58.984         488.844           Production Modernization         76.410         410.896         57.900         7.900           Assessment Science         0         8.815         9.700         9.700         9.7000           Weepons Technology and Manufacturing Maturation         5.445         5.753         7.550         9.750         9.815         9.700         9.800         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.200         9.2000         9.200         9.20	Production Operations	24,719	28,193	25,139
21-b-511, Savannah River Plutonium Processing Facility, SRS0241,896Savannah River Plutonium Modernization76,410410,458441,896Plutonium Modernization76,410410,458441,896Primary Capability Modernization76,410410,458441,896Tritum and Donestic Uranum Enchment40,08885,89488,804Production Modernization125,498469,442531,700Assessment Science01,08015,000Engineering and Integrated Assessments1,3653,730500,200Stockple Research, Technology, and Engineering6,80291,00392,000Stockple Research, Technology, and Engineering8,8159,10095,000Maintenance and Repair of Facilities92,00093,00095,000Stately and Environmental Operations8,8159,17022,750Capabilities Based Investments032,02032,020Maintenance and Repair of Facilities920,00027,000Programmabilities15,292149,19015,858Operating152,928149,19012,868Moler Scouty (DNS)7,5377,6887,648Programmabilitier Scouty (DNS)7,5377,6887,648Operation Interaction1,65032,65644,150Defense Nuclear Secutify (DNS)7,5377,6887,648Defense Nuclear Secutify (DNS)7,5377,6887,648Convension (Interaction Scouting Convension)010,45Material Ma	Stockpile Management	72,749	82,059	96,051
Savannah River Plutonium Modernization         76,410         410,458         441,896           Plutonium Modernization         76,410         410,458         441,896           Primary Capability Modernization         76,410         410,458         441,896           Trittum and Doratic Uralum Enrichment         48,088         58,984         89,894           Production Modernization         125,498         469,442         53,700           Assessment Science         0         1,800         1,500           Engineering and Integrated Assessments         1,356         3,700         3,730           Stockpile Research, Technology, and Engineering         6,802         11,053         11,550           Operations of Facilities         92,000         93,000         92,000           Stockpile Research, Technology, and Engineering         6,815         9,170         8,817           Mantenance and Repair of Facilities         34,500         31,000         52,000           Intrastructure and Safery         17,611         16,020         30,256           Operations         17,611         16,020         32,500           Operations         152,526         149,160         168,56           160-Construction         0         27,000         27,000	Savannah River Plutonium Operations	76,410	410,458	200,000
Plutonium Modernization         76,410         410,458         441,896           Primary Capability Modernization         76,410         410,458         444,896           Priduction Modernization         125,498         458,944         633,700           Assessment Science         0         1,800         15,000           Engineering and Integrated Assessments         1,856         3,500         2,700           Weapons Technology and Mauriacturing Maturation         5,446         5,753         7,350           Stockpile Research, Technology, and Engineering         6,802         11,053         11,550           Operations of Facilities         34,500         31,000         55,000           Intrastructure and Steley         17,611         16,020         30,200           Stockpile Research, Technology, and Engineering         34,500         31,000         55,000           Intrastructure and Steley         17,611         16,020         30,200         27,000           Capabilities Base Investments         0         220         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000 <td>21-D-511, Savannah River Plutonium Processing Facility, SRS</td> <td>0</td> <td>0</td> <td>241,896</td>	21-D-511, Savannah River Plutonium Processing Facility, SRS	0	0	241,896
Primary Capability Modernization         76,410         410,488         441,886           Tritum and Domesite Uranium Enrichment         49,088         68,894         68,894           Production Modernization         125,488         469,442         531,700           Assessment Solence         0         1,800         1,500           Engineering and Integrated Assessments         1,356         3,500         2,700           Weapons Technology and Manufacturing Maturation         5,446         5,733         7,350           Stockpile Research, Technology, and Engineering         6,802         11,053         11,550           Operations of Facilities         8,815         9,170         46,612           Maintenance and Repair of Facilities         3,815         9,170         2,7500           Infrastructure and Salety         17,611         16,020         30,200           Operating         152,926         149,190         22,700           Infrastructure and Salety         152,926         176,810         22,700           Infrastructure and Salety         152,926         176,910         22,700           Infrastructure and Salety         7,537         7,688         7,841           Infrastructure and Salety         7,537         7,688         7,841	Savannah River Plutonium Modernization	76,410	410,458	441,896
Thilum and Domestic Uranium Enrichment         49,088         58,984         89,804           Production Modernization         125,498         469,442         65317.00           Assessment Science         0         1,800         1,500           Engineering and Integrated Assessments         1,366         5,605.00         7,350           Stockpite Research, Technology, and Engineering         6,802         11,053         11,053           Stockpite Research, Technology, and Engineering         6,802         9,000         9,000           Stafety and Environmental Operations         8,815         9,170         8,612           Maintenance and Repair of Facilities         34,600         30,000         11,053         2,750           Capabilities Based Investments         0         320         7,500           Recapitalization         17,611         16,020         30,200           Programmatic         0         27,000         27,000           Programmatic         0         27,000         27,000           Infrastructure and Operations         152,926         176,119         16,868           Defense Nuclear Security (DNS)         7,537         7,688         7,841           Defense Nuclear Security (DNS)         7,537         7,688         <	Plutonium Modernization	76,410	410,458	441,896
Production Modernization         125,498         469,442         531,700           Assessment Science         0         1,600         1,600         1,600           Engineering and Integrated Assesments         1,36         3,500         2,700           Weepons Fechnology and Manufacturing Maturation         5,646         5,753         5,7350           Stockpile Research, Technology, and Engineering         6,802         11,053         11,550           Operations of Facilities         9,000         36,0	Primary Capability Modernization	76,410	410,458	441,896
Assessment Science         0         1,800         1,500           Engineering and Integrated Assessments         1,356         3,500         2,700           Weapons Technology and Maufacturing Maturation         5,446         5,753         7,380           Stockpile Research, Technology, and Engineering         6,002         11,053         11,550           Operations of Facilities         92,000         33,000         92,000           Safety and Environmental Operations         8,815         9,170         8,612           Maintenance and Repair of Facilities         34,000         150,000         11,671         16,020         22,750           Infrastructure and Safety         17,611         16,020         30,258         7,500           Capabilities Based Investments         0         12,000         22,7000         22,7000           Recapitalization         17,611         16,020         22,7000         22,7000           IsO-650, Tritium Finishing Facility, SRS         0         27,000         22,7000         22,7000           Information         0         27,000         22,7000         22,7000         22,7000         22,7000         22,7000         22,7000         22,7000         22,7000         22,7000         22,7000         22,7000 <td< td=""><td>Tritium and Domestic Uranium Enrichment</td><td>49,088</td><td>58,984</td><td>89,804</td></td<>	Tritium and Domestic Uranium Enrichment	49,088	58,984	89,804
Engineering and Integrated Assessments         1.56         3.000         2.700           Weapons Technology and Manufacturing Maturation         5.446         5.753         7.350           Stockpile Research, Technology, and Engineering         6.802         11.063         11.550           Operations of Facilities         92.000         93.000         92.000         93.000         92.000           Stockpile Research, Technology, and Engineering         8.815         9.170         8.612         4.612           Maintenance and Repair of Facilities         34.600         31.000         55.000         11.653         7.500           Capabilities Based Investments         0         320         7.500         7.600         7.000           Neeaptalization         17.611         16.020         30.256         7.000<	Production Modernization	125,498	469,442	531,700
Weapons Technology and Manufacturing Maturation         5.46         5.753         7.350           Stockpile Research, Technology, and Engineering         6,802         11,053         11,550           Operations of Facilities         92,000         93,000         92,000           Stockpile Research, Technology, and Engineering         6,802         11,053         11,550           Operations of Facilities         34,500         31,000         55,000           Infrastructure and Safety         17,611         15,700         22,758           Capabilities Based Investments         0         320         7,500           Recapitalization         11,610         30,255         149,190         185,868           18-D-650, Tritium Finishing Facility, SRS         0         27,000         27,000         27,000           Programmatic         0         27,000	Assessment Science	0	1,800	1,500
Stockpile Research, Technology, and Engineering         6.802         11,053         11,550           Operations of Facilities         92,000         93,000         92,000           Safety and Environmental Operations         8,815         9,170         8,612           Maintenance and Repair of Facilities         34,500         31,000         55,000           Infrastructure and Safety         17,611         15,700         22,756           Capabilities Based Investments         0         320         7,500           Recapitalization         17,611         16,020         30,256           Operating         152,926         149,190         185,868           18-0-650, Tritium Finishing Facility, SRS         0         27,000         27,000           Programmatic         0         27,000         27,000           IkO - construction         0         27,000         27,000           Infrastructure and Operations         152,926         176,190         212,868           Defense Nuclear Security (NS)         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           International Nuclear Security         0         108         124           Gobal	Engineering and Integrated Assessments	1,356	3,500	2,700
Operations of Facilities         92,000         93,000         92,000           Safety and Environmental Operations         8,815         9,170         8,612           Maintenance and Repair of Facilities         34,500         31,000         65,000           Infrastructure and Safety         17,611         15,700         22,756           Capabilities Based Investments         0         320         7,500           Recapitalization         17,611         16,020         30,256           Operating         152,926         149,190         155,868           18-D-650, Tritium Finishing Facility, SRS         0         27,000         27,000           Programmatic         0         27,000         27,000         27,000           IkO - Construction         0         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         27,000         212,868         Defense Nuclear Security         7,537         7,688         7,841         Defense Nuclear Security         7,537         7,688         7,841         24         Global Material Security         0         108         124         Global Material Security         0         124         Global Material Security         0         1	Weapons Technology and Manufacturing Maturation	5,446	5,753	7,350
Addity and Environmental Operations         8.815         9,170         8.612           Maintenance and Repair of Facilities         34,500         31,000         55,000           Infrastructure and Safety         17,611         15,700         22,756           Capabilities Based Investments         0         320         7,500           Recapitalization         17,611         16,020         30,0256           Operating         152,926         149,190         185,888           18-D-650, Tritium Finishing Facility, SRS         0         27,000         27,000           Programmatic         0         27,000         27,000           Infrastructure and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Interational Nuclear Security         0         108         124           Global Material Security         0         108         124           Global Material Removal         9,637         6,600         0         0           Nuclear Material Removal         9,637         8,600         0         0         0         0 </td <td>Stockpile Research, Technology, and Engineering</td> <td>6,802</td> <td>11,053</td> <td>11,550</td>	Stockpile Research, Technology, and Engineering	6,802	11,053	11,550
Safety and Environmental Operations         8.815         9,170         8.612           Maintenance and Repair of Facilities         34,500         31,000         55,000           Infrastructure and Safety         17,611         15,700         22,756           Capabilities Based Investments         0         320         7,500           Recapitalization         17,611         16,020         30,0256           Operating         152,926         149,190         158,883           18-D-650, Tritium Finishing Facility, SRS         0         27,000         27,000           Programmatic         0         27,000         27,000           Infrastructure and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Interational Nuclear Security         0         108         124           Global Material Security         0         108         124           Global Material Nector Security         0         0         0         0           Nuclear Material Removal         9,637         8,600         0         0         0      <	Operations of Facilities	92,000	93,000	92,000
Maintenance and Repair of Facilities34,50031,00055,000Infrastructure and Safety17,61115,70022,756Capabilities Based Investments03207,500Recapitalization17,61116,02030,256Operating152,926149,190155,86818-De50, Tritium Finishing Facility, SRS027,00027,000Programmatic027,00027,000IkO - Construction027,00027,000IkO - Construction027,00027,000Infrastructure and Operations152,926176,190212,868Defense Nuclear Security (DNS)7,5377,6887,841Information Technology and Cyber Security6,7866,7866,786Meapons Activities Programs372,298753,218866,796International Nuclear Security0108124Global Material Security02,7004,700Nuclear Material Removal9,6378,60014,150Nuclear Ide Amoval111,70628,85047,250Itaboratory and Partnership Support1,8506,0600Natorial Technical Nuclear Forensics R&D001,532Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection R&D4,6286,0795,982Nuclear Detonation Detection R&D3004500		8,815	9,170	8,612
Infrastructure and Safety         17,611         15,700         22,756           Capabilities Based Investments         0         320         7,500           Recapitalization         17,611         16,020         30,256           Operating         152,926         149,190         185,888           18-D-650, Tritium Finishing Facility, SRS         0         27,000         27,000           Programmatic         0         27,000         27,000           Ik7-Construction         0         27,000         27,000           Ik7-Construction         0         27,000         27,000           Ik7-Construction         0         27,000         27,000           Ik7-security (DNS)         7,537         7,688         7,841           Defense Nuclear Security (DNS)         7,537         7,688         6,786           Weapons Activities Programs         372,298         753,218         866,796           Meaterial Security         0         108         124           Global Material Security         0         124         14,500           Global Material Security         0         128         14,500           Material Disposition         111,706         28,850         47,250           <		34,500	31,000	55,000
Recapitalization         17,611         16,020         30.256           Operating         152,926         149,190         185,868           18-D-650, Tritium Finishing Facility, SRS         0         27,000         27,000           Programmatic         0         27,000         27,000           I&O - Construction         0         27,000         27,000           IAG - Construction         0         27,000         27,000           Information Fochology and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,668         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Weapons Activities Programs         372,298         753,218         866,796           International Nuclear Security         0         108         124           Global Material Security         0         108         124           Global Material Removal         9,637         8,600         14,150           Material Management and Minimization         111,076         28,805         47,250           Laboratory and Partnership Support         16,194         6,614         6,610           Nonproliferation & Arms Control <td>Infrastructure and Safety</td> <td>17,611</td> <td>15,700</td> <td>22,756</td>	Infrastructure and Safety	17,611	15,700	22,756
Recapitalization         17,611         16,020         30.256           Operating         152,926         149,190         185,868           18-D-650, Tritium Finishing Facility, SRS         0         27,000         27,000           Programmatic         0         27,000         27,000           I&O - Construction         0         27,000         27,000           IAG - Construction         0         27,000         27,000           Information Fochology and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,668         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Weapons Activities Programs         372,298         753,218         866,796           International Nuclear Security         0         108         124           Global Material Security         0         108         124           Global Material Removal         9,637         8,600         14,150           Material Management and Minimization         111,076         28,805         47,250           Laboratory and Partnership Support         16,194         6,614         6,610           Nonproliferation & Arms Control <td>-</td> <td></td> <td></td> <td></td>	-			
Operating         152,926         149,190         185,868           18-D-650, Tritium Finishing Facility, SRS         0         27,000         27,000           Programmatic         0         27,000         27,000           1&O - Construction         0         27,000         27,000           1&O - Construction         0         27,000         27,000           1Afrastructure and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Neapons Activities Programs         372,298         753,218         866,796           International Nuclear Security         0         108         124           Global Material Security         0         108         124           Global Material Security         0         108         124           Conversion (formerly HEU Reactor Conversion)         9,637         8,600         0           Nuclear Material Removal         9,637         8,600         0         0           Material Disposition         11,706         28,800         47,250         66,100         0         0 <td< td=""><td></td><td>17.611</td><td>16.020</td><td></td></td<>		17.611	16.020	
18-D-650, Tritium Finishing Facility, SRS         27,000         27,000           Programmatic         0         27,000         27,000           I&O - Construction         0         27,000         27,000           I&O - Construction         0         27,000         27,000           Infrastructure and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,688         7,841           Defense Nuclear Security         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Weapons Activities Programs         372,298         753,218         866,796           International Nuclear Security         0         108         124           Global Material Security         0         108         124           Conversion (formerly HEU Reactor Conversion)         0         2,700         4,700           Nuclear Material Removal         9,637         8,600         0         0           Material Disposition         111,706         28,850         47,250           Laboratory and Partnership Support         1,850         600         0         0         0         0         0				
Programmatic         0         27,000         27,000           I&O - Construction         0         27,000         27,000           Infrastructure and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,688         7,841           Defense Nuclear Security         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Weapons Activities Programs         372,298         753,218         866,796           International Nuclear Security         0         108         124           Global Material Security         0         108         124           Conversion (formerly HEU Reactor Conversion)         0         2,700         4,700           Nuclear Material Removal         9,637         8,600         14,150           Material Disposition         111,706         28,850         47,250           Laboratory and Partnership Support         1,850         600         0           Nonproliferation & Arms Control         6,149         6,051         5,995           National Technical Nuclear Forensics R&D         0         0         1,503           Proliferation Detection R&				
kO-Construction         0         27,00           Infrastructure and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,688         7,841           Defense Nuclear Security         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Weapons Activities Programs         372,298         753,218         866,796           International Nuclear Security         0         108         124           Global Material Security         0         108         124           Global Material Security         0         108         124           Conversion (formerly HEU Reactor Conversion)         0         2,700         4,700           Nuclear Material Removal         9,637         8,600         14,150           Material Disposition         111,706         28,850         47,250           Laboratory and Partnership Support         1,850         60,00         0           Nonproliferation & Arms Control         6,149         6,051         5,995           National Technical Nuclear Forensics R&D         0         0         1,503           Proliferation Detection R&D         4				
Infrastructure and Operations         152,926         176,190         212,868           Defense Nuclear Security (DNS)         7,537         7,688         7,841           Defense Nuclear Security         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Weapons Activities Programs         372,298         753,218         866,796           International Nuclear Security         0         108         124           Global Material Security         0         108         124           Conversion (formerly HEU Reactor Conversion)         0         2,700         4,700           Nuclear Material Removal         9,637         8,600         14,150           Material Disposition         111,706         28,850         47,250           Laboratory and Partnership Support         1,850         600         0           Nonproliferation & Arms Control         6,149         6,051         5,995           National Technical Nuclear Forensics R&D         0         0         1,503           Proliferation Detection R&D         4,628         6,079         5,982           Nuclear Detonation Detection R&D         300         450         0	-			
Defense Nuclear Security (DNS)         7,688         7,648           Defense Nuclear Security         7,537         7,688         7,841           Information Technology and Cyber Security         6,786         6,786         6,786           Weapons Activities Programs         372,298         753,218         866,796           International Nuclear Security         0         108         124           Global Material Security         0         108         124           Conversion (formerly HEU Reactor Conversion)         0         2,700         4,700           Nuclear Material Removal         9,637         8,600         14,150           Material Disposition         111,706         28,850         47,250           Laboratory and Partnership Support         1,850         600         0           Nonproliferation & Arms Control         6,149         6,051         5,995           National Technical Nuclear Forensics R&D         0         0         1,503           Proliferation Detection R&D         4,628         6,079         5,982				
Defense Nuclear Security7,5377,6887,841Information Technology and Cyber Security6,7866,7866,786Weapons Activities Programs372,298753,218866,796International Nuclear Security0108124Global Material Security0108124Global Material Security0108124Conversion (formerly HEU Reactor Conversion)02,7004,700Nuclear Material Removal9,6378,60014,150Material Disposition111,70628,85047,250Laboratory and Partnership Support1,8506000Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D01,5031,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Information Technology and Cyber Security6,7866,7866,786Weapons Activities Programs372,2983753,218866,796International Nuclear Security0108124Global Material Security0108124Conversion (formerly HEU Reactor Conversion)02,7004,700Nuclear Material Removal9,6378,600141,50Material Disposition111,70628,85047,250Laboratory and Partnership Support1,8506000Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D01,5031,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500		,		
Weapons Activities Programs372,298753,218866,796International Nuclear Security0108124Global Material Security0108124Conversion (formerly HEU Reactor Conversion)02,7004,700Nuclear Material Removal9,6378,60014,150Material Disposition111,70628,85047,250Laboratory and Partnership Support1,8506000Nuclear Material Management and Minimization123,19340,75066,100Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D01,5035,982Nuclear Detonation Detection R&D3004500	-			
International Nuclear Security0108124Global Material Security0108124Global Material Security02,7004,700Nuclear Material Removal9,6378,60014,150Nuclear Material Disposition111,70628,85047,250Laboratory and Partnership Support1,8506000Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D01,5035,982Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Global Material Security0108124Conversion (formerly HEU Reactor Conversion)02,7004,700Nuclear Material Removal9,6378,60014,150Material Disposition111,70628,85047,250Laboratory and Partnership Support1,8506000Material Management and Minimization123,19340,75066,100Nonproliferation & Arms Control6,1496,0515,955National Technical Nuclear Forensics R&D01,5031,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Conversion (formerly HEU Reactor Conversion)02,7004,700Nuclear Material Removal9,6378,60014,150Material Disposition111,70628,85047,250Laboratory and Partnership Support1,8506000Material Management and Minimization123,19340,75066,100Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D01,5031,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Nuclear Material Removal9,6378,60014,150Material Disposition111,70628,85047,250Laboratory and Partnership Support1,8506000Material Management and Minimization123,19340,75066,100Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D001,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Material Disposition111,70628,85047,250Laboratory and Partnership Support1,8506000Material Management and Minimization123,19340,75066,100Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D001,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Laboratory and Partnership Support1,8506000Material Management and Minimization123,19340,75066,100Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D001,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Material Management and Minimization123,19340,75066,100Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D001,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Nonproliferation & Arms Control6,1496,0515,995National Technical Nuclear Forensics R&D001,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
National Technical Nuclear Forensics R&D01,503Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Proliferation Detection R&D4,6286,0795,982Nuclear Detonation Detection3004500				
Nuclear Detonation Detection     300     450     0	National Technical Nuclear Forensics R&D	0	0	1,503
	Proliferation Detection R&D	4,628	6,079	5,982
Nonproliferation Fuels Development 1,704 0 0	Nuclear Detonation Detection	300	450	0
	Nonproliferation Fuels Development	1,704	0	0

#### DEPARTMENT OF ENERGY Laboratory Table Savannah River Site FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Defense Nuclear Nonproliferation R&D	6,63	2 6,529	5,982
99-D-143, Mixed Oxide Fuel Fabrication Facility, SRS	75,60	2 80,000	0
18-D-150, Surplus Plutonium Disposition Project, SRS		0 74,000	142,589
Nonproliferation Construction	75,60	2 154,000	142,589
Counterterrorism and Counterproliferation	3,48	9 3,594	3,701
Nuclear Counterterrorism & Incident Response	3,48	9 3,594	3,701
Defense Nuclear Nonproliferation Programs	215,06	5 211,032	225,994
Environment, Health, Safety & Security	1	0 10	10
Environment, Health, Safety, and Security	1	0 10	10
Other Defense Activites Programs	1	0 10	10
Savannah River Risk Management Operations	489,46	506,366	455,122
18-D-402 Emergency Operations Center Replacement, SR	1,25	9 6,792	0
Construction - Savannah River Sites	1,25	9 6,792	0
20-D-402 Advanced Manufacturing Collaborative Facility (AMC)		0 25,000	25,000
20-D-401 Saltstone Disposal Unit #10, 11, 12		0 500	0
19-D-701 SR Security Systems Replacement	10,00	4,525	0
18-D-402 Saltstone disposal unit #8/9	7,57	7 20,000	65,500
17-D-402 Saltstone Disposal Unit #7	41,24	3 40,034	10,716
05-D-405 Salt Waste Processing Facility, SRS	130,00	0 21,200	0
Construction - Radioactive Liquid Tank Waste	188,82	0 111,259	101,216
Radioactive Liquid Tank Waste Stabilization	696,86	9 820,106	970,332
Savannah River Sites	1,376,40	8 1,444,523	1,526,670
Defense Environmental Cleanup Programs	1,376,40	8 1,444,523	1,526,670
Total Savannah River Site	1,963,78	1 2,408,783	2,619,470

#### DEPARTMENT OF ENERGY Laboratory Table Savannah River Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Savannah River Site Office			
Information Technology and Cyber Security	50	200	100
Weapons Activities Programs	50	200	100
Environment, Health, Safety & Security	500	500	500
Environment, Health, Safety, and Security	500	500	500
Other Defense Activites Programs	500	500	500
Total Savannah River Site Office	550	700	600

## DEPARTMENT OF ENERGY Laboratory Table Separations Process Research Unit FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Ownerstitute Descent Heit	Enacled	Enacled	Request Detail
Separations Process Research Unit			
Separations Processing Research Unit	15,000	15,300	15,000
NNSA Sites and Nevada Off-Sites	15,000	15,300	15,000
Defense Environmental Cleanup Programs	15,000	15,300	15,000
Total Separations Process Research Unit	15,000	15,300	15,000

# DEPARTMENT OF ENERGY Laboratory Table SLAC National Accelerator Laboratory FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
SLAC National Accelerator Laboratory			
Assessment Science	90	210	0
Inertial Confinement Fusion	0	0	180
Stockpile Research, Technology, and Engineering	90	210	180
Weapons Activities Programs	90	210	180
National Technical Nuclear Forensics R&D	0	0	1,387
Proliferation Detection R&D	1,275	1,200	1,181
Nuclear Detonation Detection	487	415	0
Defense Nuclear Nonproliferation R&D	1,762	1,615	1,181
Defense Nuclear Nonproliferation Programs	1,762	1,615	2,568
Research - Advanced Scientific Computing Research	1,366	1,170	670
Advanced Scientific Computing Research	1,366	1,170	670
Research - Basic Energy Sciences	232,553	231,945	226,323
18-SC-13, Linac Coherent Light Source-II-High Energy (LCLS-II-HE), SLAC	28,000	50,000	14,000
13-SC-10, Linac Coherent Light Source-II (LCLS-II), SLAC	129,300	0	0
Construction - Basic Energy Sciences	157,300	50,000	14,000
Basic Energy Sciences	389,853	281,945	240,323
Biological & Environmental Research	7,394	4,100	3,600
Research - Fusion Energy Sciences	2,340	6,800	5,000
20-SC-61, Matter in Extreme Conditions (MEC) Upgrade (TEC)	0	15,000	5,000
Construction - Fusion Energy Sciences	0	15,000	5,000
Fusion Energy Sciences	2,340	21,800	10,000
Research - High Energy Physics	64,007	66,589	57,496
High Energy Physics	64,007	66,589	57,496
Operations and Maintenance - Nuclear Physics	1,015	1,336	1,005
Nuclear Physics	1,015	1,336	1,005
Workforce Development for Teachers & Scientists	460	0	(
Facilities and Infrastructure (SLI)	9,400	0	C
20-SC-75, Large Scale Collaboration Center, SLAC (19-SC-75)	0	11,000	8,000
20-SC-79, Critical Utilities Infrastructure Revitalization, SLAC (20-SC-81)	0	500	2,000
Construction - Science Laboratories Infrastructure	0	11,500	10,000
Science Laboratories Infrastructure	9,400	11,500	10,000
Safeguards and Security - SC	4,304	4,328	4,328
Science Programs	480,139	392,768	327,422
Building Technologies	0	567	021, .22
Vehicle Technologies	4,500	5,200	1,500
Solar Energy Technologies	2,445	1,998	591
Hydrogen and Fuel Cells Technologies	50	61	50
Energy Efficiency and Renewable Energy Programs	6,995	7,826	2,141
Transmission Reliability and Resilience	400	0	2,111 C
Resilient Distribution Systems	1,175	500	(
Energy Storage Research	100	0	(
Energy Storage	100	0	(
Electricity Programs	1,675	500	(
Unconventional Fossil Energy from Petroleum - Oil Technologies	252	252	93
Natural Gas Technologies Research	1,150	934	311
Fossil Energy	1,150	934 1,186	404
Other Departmental Administration	1,402	0	404 C
Departmental Administration Programs	27 27	0	0

## DEPARTMENT OF ENERGY Laboratory Table SLAC National Accelerator Laboratory FY 2021

Total SLAC National Accelerator Laboratory	492,090		332,715
	Enacted	Enacted	Request Detail
	FY 2019	FY 2020	FY 2021

#### DEPARTMENT OF ENERGY Laboratory Table Southeastern Power Administration Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Southeastern Power Administration Office			
Purchase Power and Wheeling - SEPA	68,824	70,704	85,401
Program Direction - SEPA	6,500	6,597	11,246
Southeastern Power Administration Programs	75,324	77,301	96,647
Total Southeastern Power Administration Office	75,324	77,301	96,647

## DEPARTMENT OF ENERGY Laboratory Table Southwestern Power Administration Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Southwestern Power Administration Office			
Resilient Distribution Systems	0	6,750	2,250
Electricity Programs	0	6,750	2,250
Operation And Maintenance - SWPA	17,006	13,639	13,292
Construction - SWPA	16,875	15,067	13,267
Purchase Power And Wheeling - SWPA	60,000	68,000	95,000
Program Direction - SWPA	32,995	35,157	35,635
Subtotal, SWPA	126,876	131,863	157,194
Southwestern Power Administration Programs	126,876	131,863	157,194
Total Southwestern Power Administration Office	126,876	138,613	159,444

# DEPARTMENT OF ENERGY Laboratory Table Stanford Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Stanford Site Office			
Program Direction - SC	2,476	0	0
Science Programs	2,476	0	0
Total Stanford Site Office	2,476	0	0

## DEPARTMENT OF ENERGY Laboratory Table Strategic Petroleum Reserve - Bayou Choctow FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Strategic Petroleum Reserve - Bayou Choctow			
Strategic Petroleum Reserve Management	13,523	13,806	15,851
Fossil Energy	13,523	13,806	15,851
Total Strategic Petroleum Reserve - Bayou Choctow	13,523	13,806	15,851

## DEPARTMENT OF ENERGY Laboratory Table Strategic Petroleum Reserve - Big Hill FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Strategic Petroleum Reserve - Big Hill			
Storage Facilities Development	22,176	19,276	23,581
Fossil Energy	22,176	19,276	23,581
Total Strategic Petroleum Reserve - Big Hill	22,176	19,276	23,581

## DEPARTMENT OF ENERGY Laboratory Table Strategic Petroleum Reserve - Bryan Mound FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Strategic Petroleum Reserve - Bryan Mound			
Storage Facilities Development	25,473	21,139	17,358
Fossil Energy	25,473	21,139	17,358
Total Strategic Petroleum Reserve - Bryan Mound	25,473	21,139	17,358

## DEPARTMENT OF ENERGY Laboratory Table Strategic Petroleum Reserve - West Hackberry FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Strategic Petroleum Reserve - West Hackberry			
Storage Facilities Development	24,093	22,299	20,770
Fossil Energy	24,093	22,299	20,770
Total Strategic Petroleum Reserve - West Hackberry	24,093	22,299	20,770

## DEPARTMENT OF ENERGY Laboratory Table Strategic Petroleum Reserve Project Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
Oferstanda Deterlaren Deserve Desiset Office	Enacted	Enacted	Request Detail
Strategic Petroleum Reserve Project Office			
Program Direction - Naval Petroleum & Oil Shale Reserve	10,000	10,000	0
Storage Facilities Development	107,637	105,720	96,239
Fossil Energy	117,637	115,720	96,239
Total Strategic Petroleum Reserve Project Office	117,637	115,720	96,239

## DEPARTMENT OF ENERGY Laboratory Table Thomas Jefferson National Accelerator Facility FY 2021 (Dollars in Thousands)

	51/ 00/ 0	51/ 0000	514 00004
	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Thomas Jefferson National Accelerator Facility			
Research - Advanced Scientific Computing Research	387	382	360
Advanced Scientific Computing Research	387	382	360
Research - High Energy Physics	350	750	400
High Energy Physics	350	750	400
Operations and Maintenance - Nuclear Physics	129,017	133,267	128,609
Nuclear Physics	129,017	133,267	128,609
Workforce Development for Teachers & Scientists	200	0	0
20-SC-73, CEBAF Renovation and Expansion, TJNAF (19-SC-73)	0	2,000	2,000
Construction - Science Laboratories Infrastructure	0	2,000	2,000
Science Laboratories Infrastructure	0	2,000	2,000
Safeguards and Security - SC	3,021	3,037	3,037
Science Programs	132,975	139,436	134,406
Other Departmental Administration	30	30	30
Departmental Administration Programs	30	30	30
Total Thomas Jefferson National Accelerator Facility	133,005	139,466	134,436

# DEPARTMENT OF ENERGY Laboratory Table Thomas Jefferson Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Thomas Jefferson Site Office			
Program Direction - SC	1,971	2,148	2,241
Science Programs	1,971	2,148	2,241
Total Thomas Jefferson Site Office	1,971	2,148	2,241

#### DEPARTMENT OF ENERGY Laboratory Table University of Rochester FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
University of Rochester			
Inertial Confinement Fusion	80,000	76,480	75,000
Stockpile Research, Technology, and Engineering	80,000	76,480	75,000
Weapons Activities Programs	80,000	76,480	75,000
Total University of Rochester	80,000	76,480	75,000

	FY 2019	FY 2020 FY 2021	FY 2021
	Enacted	Enacted	Request Detail
Nashington Headquarters			
B61 Life Extension Program	8,306	8,019	8,150
W76-2 Modification Program	0	3,606	C
W88 Alteration Program	3,183	3,077	4,978
W80-4 Life Extension Program	6,849	9,090	15,005
W87-1 Modification Program	554	1,133	16,230
W93	0	0	1,590
Stockpile Major Modernization	18,892	24,925	45,953
Stockpile Sustainment	31,756	13,193	41,13
Weapons Dismantlement and Disposition	0	567	1,50
Production Operations	12,471	14,079	17,06
Stockpile Management	63,119	52,764	105,65
Plutonium Modernization	5,980	16,598	15,46
High Explosives & Energetics	0	0	5,36
Primary Capability Modernization	5,980	16,598	20,82
Secondary Capability Modernization	15,858	31,259	67,43
Tritium and Domestic Uranium Enrichment	68,558	96,448	89,98
Non-Nuclear Capability Modernization	1,895	2,873	22,13
Production Modernization	92,291	147,178	200,37
Assessment Science	17,219	16,627	60,01
Engineering and Integrated Assessments	3,106	3,325	5,13
Inertial Confinement Fusion	7,111	7,851	42,75
Advanced Simulation and Computing	119,802	69,663	218,62
Weapons Technology and Manufacturing Maturation	2,526	2,662	4,46
Stockpile Research, Technology, and Engineering	149,764	100,128	330,99
Operations of Facilities	9,000	25,000	14,00
Safety and Environmental Operations	9,129	38,361	17,43
Maintenance and Repair of Facilities	89,500	69,000	146,00
Infrastructure and Safety	36,860	52,697	209,18
Capabilities Based Investments	16,412	15,898	28,01
Planning for Programmatic Construction (Pre-CD-1)	0	0	84,78
Recapitalization	53,272	68,595	321,98
Operating	160,901	200,956	499,42
Infrastructure and Operations	160,901	200,956	499,42
-		,	123,68
Program Direction - STA - Federal Support	102,022 102,022	107,660	123,68
Secure Transportation Asset		107,660	
Defense Nuclear Security (DNS)	30,321	88,107	117,14
Defense Nuclear Security	30,321	88,107	117,14
Information Technology and Cyber Security	124,070	189,745	265,35
Legacy Contractor Pensions (WA)	162,292	91,200	101,66
Weapons Activities Programs	884,780	977,738	1,744,30
International Nuclear Security	1,488	6,442	7,45
Domestic Radiological Security	611	28,981	19,91
International Radiological Security	1	9,045	8,40
Nuclear Smuggling Detection and Deterrence	526	5,103	5,12
Global Material Security	2,626	49,571	40,90
Conversion (formerly HEU Reactor Conversion)	0	6,646	57,50
Nuclear Material Removal	684	1,000	
Material Disposition	2,804	72,358	17,81

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Laboratory and Partnership Support	644	40,333	0
Material Management and Minimization	4,132	120,337	75,317
Nonproliferation & Arms Control	8,641	12,384	12,269
Proliferation Detection R&D	13,229	21,151	20,812
Nuclear Detonation Detection	2,660	16,406	11,208
Defense Nuclear Nonproliferation R&D	15,889	37,557	32,020
99-D-143, Mixed Oxide Fuel Fabrication Facility, SRS	135,582	110,000	0
18-D-150, Surplus Plutonium Disposition Project, SRS	0	2,250	3,500
Nonproliferation Construction	135,582	112,250	3,500
Emergency Operations	13,980	12,306	12,564
Counterterrorism and Counterproliferation	62,548	68,293	40,867
Nuclear Counterterrorism & Incident Response	76,528	80,599	53,431
Legacy Contractor Pensions (DNN)	28,640	13,700	14,348
Defense Nuclear Nonproliferation Programs	272,038	426,398	231,788
Naval Reactors Development	1,591	1,908	1,955
Naval Reactors Operations and Infrastructure	9,391	9,663	9,953
Program Direction - Naval Reactors	29,225	30,300	32,220
Naval Reactors Programs	40,207	41,871	44,128
Program Direction - National Nuclear Security Administration	296,331	311,384	330,664
Federal Salaries and Expenses Programs	296,331	311,384	330,664
Research - Advanced Scientific Computing Research	68,955	134,008	223,208
Advanced Scientific Computing Research	68,955	134,008	223,208
Research - Basic Energy Sciences	147,264	165,937	142,591
21-SC-10, Cryomodule Repair and Maintenance Facility, SLAC	0	0	1,000
Construction - Basic Energy Sciences	0	0	1,000
Basic Energy Sciences	147,264	165,937	143,591
Biological & Environmental Research	28,135	120,993	75,327
Research - Fusion Energy Sciences	130,512	168,768	92,809
Fusion Energy Sciences	130,512	168,768	92,809
Research - High Energy Physics	98,473	156,285	150,042
High Energy Physics	98,473	156,285	150,042
Operations and Maintenance - Nuclear Physics	106,013	105,916	110,594
Nuclear Physics	106,013	105,916	110,594
Workforce Development for Teachers & Scientists	0	28,000	20,500
Facilities and Infrastructure (SLI)	0	38,578	6,000
Science Laboratories Infrastructure	0	38,578	6,000
Safeguards and Security - SC	4,583	11,669	14,592
Program Direction - SC	92,066	97,902	101,403
Science Programs	676,001	1,028,056	938,066
Bioenergy Technologies	18,413	31,463	6,225
Building Technologies	64,556	54,945	24,500
State Energy Program Grants	1,633	2,100	0
Weatherization Assistance Program	145	6,765	0
Weatherization and Intergovernmental Programs	1,778	8,865	0
Program Direction - Energy Efficiency and Renewable Energy	130,570	129,556	104,163
Advanced Manufacturing	157,630	34,204	8,270
Federal Energy Management Program	4,745	6,221	2,200
Vehicle Technologies	0	59,500	4,000
Strategic Programs	5,000	4,300	500
Geothermal Technologies	4,972	20,839	11,275
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FY 2020 FY 2021 FY 2019 Request Detail Enacted Enacted Solar Energy Technologies 42,073 69,954 14,040 Water Power Technologies 11,130 37,876 14,674 Wind Energy Technologies 18,912 2,670 16.329 Hydrogen and Fuel Cells Technologies 1,400 8.734 10.578 Energy Efficiency and Renewable Energy Programs 468,513 484,630 193,917 Transmission Reliability and Resilience 300 237 300 **Resilient Distribution Systems** 648 450 200 Energy Storage Research 361 300 300 300 Energy Storage 361 300 Transformer Resilience and Advanced Components 812 432 322 DCEI Energy Mission Assurance 0 0 825 3,315 Transmission Permitting and Technical Assistance 2.547 3.315 Program Direction - Electricity 13,967 14,320 15,831 **Electricity Programs** 18,572 19,117 21,093 Cybersecurity for Energy Delivery Systems 20,575 12,623 10,700 Infrastructure Security and Energy Restoration 8,060 11,500 13,566 Program Direction - CESER 8,516 8,698 10,261 36,450 Cybersecurity, Energy Security, and Emergency Response Programs 37.151 30.898 STEP Supercritical CO2 0 14,000 0 CCS and Power Systems 0 14,000 0 Carbon Capture Utilization and Storage 115 596 175,070 98 869 Advanced Energy Systems 95,881 101,407 217,620 Cross Cutting Research 7,400 37,302 49,673 366.162 Advanced Coal Energy Systems & CCUS 218 877 313 779 Program Direction - Fossil Energy 31,605 31,353 31,661 Special Recruitment Programs 700 700 900 Import Export Authorization 2,235 2,367 2,380 Unconventional Fossil Energy from Petroleum - Oil Technologies 317 858 858 Natural Gas Technologies Research 23.597 24.505 7,300 2,006 Program Direction - Naval Petroleum & Oil Shale Reserve 2.000 2.000 Strategic Petroleum Reserve Management 8,402 8,430 8,430 Northeast Home Heating Oil Reserves 962 962 0 Fossil Energy 289,264 398,954 419,128 Crosscutting Technology Development 20,932 7,650 15,325 Energy Innovation Hub for Modeling and Simulation 3,155 0 0 Nuclear Science User Facilities 2.027 1.900 1.715 NEAMS Joint Modeling and Simulation Program 8,577 0 0 Transformational Challenge Reactor 4,000 0 3,000 Joint Modeling and Simulation Program 0 9,170 1,766 Nuclear Energy Enabling Technologies 34,379 21,847 22,991 Light Water Reactor Sustainability 13.457 13.545 4,625 Advanced Reactor Technologies 6,000 19,150 3.000 Versatile Advanced Test Reactor 3,479 8,580 0 Advanced SMR R&D 18,792 11,305 1,000 Reactors Concepts RD&D 54,878 36,430 11,625 Other Project Costs 0 0 33,000 21-E-200, VTR Project 0 0 262,000 Versatile Test Reactor Project 0 0 295,000 National Reactor Innovation Center 0 500 250 Demonstration 1 0 0 500

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Demonstration 2	0	500	0
Risk Reduction for Future Demonstration	0	500	0
Advanced Reactors Safeguards	0	1,000	500
Advanced Reactors Demonstration Program	0	3,000	750
Research Reactor Infrastructure	7	29	15
Oak Ridge Nuclear Infrastructure	15	43	C
Radiological Facilities Management	22	72	15
INL Operations and Infrastructure	595	1,036	500
Idaho Facilities Management	595	1,036	500
Safeguards and Security - Nuclear Energy	252	397	350
Idaho Sitewide Safeguards and Security	252	397	350
Program Direction - Nuclear Energy	43,571	42,145	39,015
Integrated University Program	0	16	C
International Nuclear Energy Cooperation	109	0	C
STEP R&D	240	240	C
Mining, Conversion, and Transportation	0	1,100	1,100
Fuel Cycle Research and Development Mining and Conversion FCRD	0	1,100	1,100
Materials Recovery and Waste Form Development (MRWFD)	0	7,115	2,846
Material recovery and waste form development	0	7,115	2,846
Accident Tolerant Fuels	0	19,805	7,458
Triso Fuel and Graphite Qualification	0	7,650	8,670
Total Advanced Fuels	0	27,455	16,128
Fuel Cycle Research and Development	15,754	0	(
Fuel Cycle Laboratory R&D	0	3,974	746
Used Nuclear Fuel Disposition R&D	0	9,000	9,000
Fuel Cycle Research and Development FCRD	15,754	48,644	29,820
Nuclear Energy Programs	149,800	153,827	400,066
Office Of The Secretary	5,395	5,119	5,582
Congressional and Intergovernmental Affairs	6,200	4,395	5,616
Office of the Chief Financial Officer	48,912	52,000	53,59
Economic Impact & Diversity	10,169	10,169	9,93
Office of International Affairs	0	26,825	(
Chief Information Officer	131,624	140,200	134,778
Other Departmental Administration	174,450	143,494	159,995
Strategic Partnership Projects	0	0	6,722
Departmental Administration Programs	376,750	382,202	376,215
Program Direction - Environment, Health, Safety and Security	69,000	71,000	75,140
Environment, Health, Safety & Security	117,320	120,320	118,029
Environment, Health, Safety, and Security	186,320	191,320	193,169
Program Direction - Office of Enterprise Assessments	52,702	54,711	54,635
-		23,918	26,799
Enterprise Assessments	23,918		
Office of Enterprise Assessments Specialized Security Activities	76,620	78,629	81,434
	266,378	273,409	258,41
Legacy Management Activities - Defense	47,282	47,246	208,27
Legacy Management	47,282	47,246	208,271
Office of Hearings and Appeals	3,739	4,852	4,262
Other Defense Activites Programs	580,339	595,456	745,547
Indian Energy Policy & Programs	4,350	21,550	7,555
Indian Energy Policy and Programs (IEPP)	4,350	21,550	7,555
ARPA-E Projects	334,750	390,000	0

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Program Direction - ARPA-E	31,250	35,000	21,256
Advanced Research Projects Agency - Energy Programs	366,000	425,000	21,256
Energy Information Administration (EIA)	125,000	126,800	128,710
Loan Guarantee Program	32,918	31,850	3,000
Title XVII Loan Guarantee Programs	32,918	31,850	3,000
Administrative Expenses - Tribal Energy Loan Guarantee Program	1,000	2,000	0
Tribal Energy Loan Guarantee Programs	1,000	2,000	0
Advanced Technology Vehicle Manufacturing Loan Program	4,700	5,000	0
Advanced Technology Vehicles Manufacturing Loan Programs	4,700	5,000	0
Program Direction - Defense Environmental Cleanup	83,726	74,347	74,042
Program Support - Defense Environmental Cleanup	12,979	12,979	12,979
Technology Development and Deployment	25,000	25,000	25,000
Defense Environmental Cleanup Programs	121,705	112,326	112,021
Management and Storage of Elemental Mercury	0	1,200	0
Non-Defense Environmental Cleanup Programs	0	1,200	0
Uranium Enrichment D&D Fund-U Th Reimbursements	11,000	5,250	21,284
Uranium Enrichment D&D Programs	11,000	5,250	21,284
Program Direction - Office of Inspector General	51,330	54,215	57,739
Inspector General Programs	51,330	54,215	57,739
Just and Reasonable Rates, Terms, and Conditions	171,318	176,468	182,261
Safe, Reliable, Secure, & Efficient Infrastructure	130,090	132,286	142,757
Mission Support through Organizational Excellence	68,492	73,246	79,332
Federal Energy Regulatory Commission Programs	369,900	382,000	404,350
Program Direction - AITO	0	0	4,912
Artificial Intelligence Technology Office Programs	0	0	4,912
International Affairs Program Direction	0	0	32,959
International Affairs Programs	0	0	32,959
Uranium Reserve Program	0	0	150,000
Uranium Reserve Programs	0	0	150,000
Interim Storage & Nuclear Waste Fund Oversight	0	0	15,000
Interim Storage Programs	0	0	15,000
Total Washington Headquarters	5,177,649	6,017,722	6,440,150

## DEPARTMENT OF ENERGY Laboratory Table Waste Isolation Pilot Plant FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
Waste Isolation Pilot Plant	Enacted	Enacted	Request Detail
Material Disposition	9,722	2,240	4,300
Material Management and Minimization	9,722	2,240	4,300
Nonproliferation & Arms Control	325	427	423
Counterterrorism and Counterproliferation	37	39	40
Nuclear Counterterrorism & Incident Response	37	39	40
Defense Nuclear Nonproliferation Programs	10,084	2,706	4,763
Waste Isolation Pilot Plant (WIPP)	311,695	294,353	323,260
21-D-401 Hoisting Capability Project	0	0	10,000
15-D-411 Safety Significant Confinement Ventilation System, WIPP	84,212	58,054	0
15-D-412 Exhaust Shaft, WIPP	1,000	44,500	50,000
Total Waste Isolation Pilot Plant	396,907	396,907	383,260
Defense Environmental Cleanup Programs	396,907	396,907	383,260
Total Waste Isolation Pilot Plant	406,991	399,613	388,023

## DEPARTMENT OF ENERGY Laboratory Table Weldon Spring Site Office FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Weldon Spring Site Office			
Legacy Management Activities - Defense	2,996	3,193	4,092
Legacy Management	2,996	3,193	4,092
Other Defense Activites Programs	2,996	3,193	4,092
Total Weldon Spring Site Office	2,996	3,193	4,092

#### DEPARTMENT OF ENERGY Laboratory Table West Valley Demonstration Project FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
West Valley Demonstration Project			
Safeguards and Security - Defense Environmental Cleanup	3,133	4,196	4,298
Defense Environmental Cleanup Programs	3,133	4,196	4,298
West Valley Demonstration Project - NDEC	75,000	75,215	88,113
Community and Regulatory Support	0	200	0
Non-Defense Environmental Cleanup Programs	75,000	75,415	88,113
Total West Valley Demonstration Project	78,133	79,611	92,411

#### DEPARTMENT OF ENERGY Laboratory Table Western Area Power Administration Office FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Western Area Power Administration Office			
Transmission Reliability and Resilience	250	0	0
Resilient Distribution Systems	350	0	0
Transformer Resilience and Advanced Components	150	0	0
Electricity Programs	750	0	0
Cybersecurity for Energy Delivery Systems	155	0	0
Infrastructure Security and Energy Restoration	0	1,000	1,180
Cybersecurity, Energy Security, and Emergency Response Programs	155	1,000	1,180
System Operation And Maintenance - CROM	77,056	72,176	77,874
Construction And Rehabilitation - CROM	32,632	45,887	26,251
Program Direction - CROM	238,483	250,091	253,575
Construction, Rehabilitation, Operation, and Maintenance (CROM) - WP	348,171	368,154	357,700
Western Area Power Administration Programs	348,171	368,154	357,700
Program Direction - Colorado River Basins Fund	62,948	67,112	70,316
Equipment, Contracts and Related Expenses - Colorado River Basins Fund	157,389	153,132	174,731
Colorado River Basins Fund	220,337	220,244	245,047
Colorado River Basins Power Marketing Fund (CRBPMF) Programs	220,337	220,244	245,047
Total Western Area Power Administration Office	569,413	589,398	603,927

# DEPARTMENT OF ENERGY Laboratory Table Y-12 National Security Complex FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
12 National Security Complex			
B61 Life Extension Program	94,030	55,307	92,000
W76-2 Modification Program	57,253	0	C
W88 Alteration Program	5,268	8,608	4,123
W80-4 Life Extension Program	21,800	52,478	63,164
W87-1 Modification Program	500	4,000	45,000
W93	0	0	500
Stockpile Major Modernization	178,851	120,393	204,787
Stockpile Sustainment	45,941	45,828	36,673
Weapons Dismantlement and Disposition	10,000	10,000	11,500
Production Operations	112,518	104,709	108,738
Stockpile Management	347,310	280,930	361,698
Secondary Capability Modernization	217,328	249,006	370,860
Tritium and Domestic Uranium Enrichment	26,472	25,000	21,667
Production Modernization	243,800	274,006	392,52
Engineering and Integrated Assessments	2,332	3,486	6,18
Advanced Simulation and Computing	500	500	
Weapons Technology and Manufacturing Maturation	4,483	8,104	12,80
Stockpile Research, Technology, and Engineering	7,315	12,090	18,98
Operations of Facilities	104,000	99,000	109,00
Safety and Environmental Operations	21,800	14,275	22,09
Maintenance and Repair of Facilities	100,000	95,000	132,00
Infrastructure and Safety	79,957	73,823	76,54
Capabilities Based Investments	9,100	11,910	19,40
Recapitalization	89,057	85,733	95,94
Operating	314,857	294,008	359,04
18-D-690, Lithium Processing Facility, Y-12	19,000	32,000	109,40
06-D-141, Uranium Processing Facility, Y-12	703,000	745,000	750,00
Programmatic	722,000	777,000	859,40
I&O - Construction	722,000	777,000	859,40
Infrastructure and Operations	1,036,857	1,071,008	1,218,44
STA Operations and Equipment	5	0	, -,
Secure Transportation Asset	5	0	
Defense Nuclear Security (DNS)	167,532	167,465	173,81
17-D-710, West End Protected Area Reduction Project, Y-12	0	25,000	11,00
Construction - Defense Nuclear Security	0	25,000	11,00
Defense Nuclear Security	167,532	192,465	184,81
Information Technology and Cyber Security	7,572	7,572	7,57
Weapons Activities Programs	1,810,391	1,838,071	2,184,04
International Nuclear Security	1,696	2,970	3,41
Domestic Radiological Security	19,050	14,492	9,95
International Radiological Security	438	370	344
Global Material Security	21,184	17,832	13,71
Conversion (formerly HEU Reactor Conversion)	0	800	2,04
Nuclear Material Removal		5,675	
	2,987	5,675 8,600	3,10 22,69
		0.000	22.090
Material Disposition	22,047		
	22,047 1,514 26,548	360 15,435	27,84

## DEPARTMENT OF ENERGY Laboratory Table Y-12 National Security Complex FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
National Technical Nuclear Forensics R&D	0	0	2,272
Proliferation Detection R&D	5,735	7,434	7,315
Nuclear Detonation Detection	810	680	0
Nonproliferation Fuels Development	1,248	0	0
Defense Nuclear Nonproliferation R&D	7,793	8,114	7,315
Counterterrorism and Counterproliferation	2,938	3,026	3,117
Nuclear Counterterrorism & Incident Response	2,938	3,026	3,117
Defense Nuclear Nonproliferation Programs	61,579	48,501	58,316
Facilities and Infrastructure (SLI)	1,250	0	0
Science Laboratories Infrastructure	1,250	0	0
Science Programs	1,250	0	0
Total Y-12 National Security Complex	1,873,220	1,886,572	2,242,356

## DEPARTMENT OF ENERGY

Laboratory Table Y-12 Site Office FY 2021 (Dollars in Thousands)

	FY 2019 Enacted	FY 2020 Enacted	FY 2021 Request Detail
Y-12 Site Office			
Environment, Health, Safety & Security	20	20	20
Environment, Health, Safety, and Security	20	20	20
Other Defense Activites Programs	20	20	20
17-D-401 On-site Waste Disposal Facility	10,000	0	22,380
14-D-403 Outfall 200 Mercury Treatment Facility	76,000	70,000	20,500
Construction - Oak Ridge	86,000	70,000	42,880
OR Technology Development and Deployment	3,000	5,000	3,000
Oak Ridge (OR)	89,000	75,000	45,880
Defense Environmental Cleanup Programs	89,000	75,000	45,880
Total Y-12 Site Office	89,020	75,020	45,900

# DEPARTMENT OF ENERGY Laboratory Table Grants FY 2021 (Dollars in Thousands)

	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
Grants			
Safety and Environmental Operations	0	0	436
Operating	0	0	436
Infrastructure and Operations	0	0	436
Weapons Activities Programs	0	0	436
Research - Advanced Scientific Computing Research	16,885	17,464	15,060
Advanced Scientific Computing Research	16,885	17,464	15,060
Research - Basic Energy Sciences	130,450	136,457	136,457
Basic Energy Sciences	130,450	136,457	136,457
Biological & Environmental Research	152,059	115,033	92,545
Research - Fusion Energy Sciences	119,407	96,324	82,034
Fusion Energy Sciences	119,407	96,324	82,034
Research - High Energy Physics	87,455	95,107	81,587
High Energy Physics	87,455	95,107	81,587
Operations and Maintenance - Nuclear Physics	20,071	28,500	25,620
14-SC-50, Facility for Rare Isotope Beams, MSU	75,000	40,000	5,300
Construction - Nuclear Physics	75,000	40,000	5,300
Nuclear Physics	95,071	68,500	30,920
Science Programs	601,327	528,885	438,603
State Energy Program Grants	49,000	56,000	0
Weatherization Assistance Program	253,500	297,120	0
Weatherization and Intergovernmental Programs	302,500	353,120	0
Energy Efficiency and Renewable Energy Programs	302,500	353,120	0
Transmission Reliability and Resilience	3,720	7,781	7,542
Resilient Distribution Systems	8,864	9,143	668
Energy Storage Research	1,871	10,362	1,416
Energy Storage	1,871	10,362	1,416
Transformer Resilience and Advanced Components	1,093	243	328
Transmission Permitting and Technical Assistance	1,710	1,250	1,250
Program Direction - Electricity	760	697	696
Electricity Programs	18,018	29,476	11,900
Indian Energy Policy & Programs	13,350	150	150
Indian Energy Policy and Programs (IEPP)	13,350	150	150
Total Grants	935,195	911,631	451,089

# DEPARTMENT OF ENERGY Laboratory Table No LPI FY 2021 (Dollars in Thousands)

	51( 0010	EV 2020	EV 2024
	FY 2019	FY 2020	FY 2021
	Enacted	Enacted	Request Detail
No LPI			
Transmission Reliability and Resilience	4	19	8
Resilient Distribution Systems	854	306	432
Energy Storage Research	200	5,338	784
Energy Storage	200	5,338	784
DCEI Energy Mission Assurance	0	0	825
Electricity Programs	1,057	5,663	2,049
Northeast Gasoline Supply Reserve	29,000	0	0
Northeast Home Heating Oil Reserves	9,038	9,038	0
Fossil Energy	38,038	9,038	0
Other Departmental Administration	0	5,000	0
Departmental Administration Programs	0	5,000	0
Total No LPI	39,095	19,701	2,049