

missioning activities at the site. The Department has placed all operations in a safe and stable configuration during this pause that allows time to complete the evaluation, but will continue to perform environmental monitoring activities. The Department claims it is committed to cleaning up the Energy Technology and Engineering Site in accordance with applicable Federal and State regulations. The Committee is very concerned with this situation and will be monitoring the Department's actions during the "pause" in cleanup.

URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND

Appropriations, 2007	\$556,606,000
Budget estimate, 2008	573,509,000
Committee recommendation	573,509,000

Uranium Enrichment D&D Fund.—The Committee provides \$573,509,000, the same as the budget request. The Committee also recommends \$250,406,000, an increase of \$20,000,000, to keep the decontamination and decommissioning of the East Tennessee Technology Park's K-25 process building on schedule for completion by fiscal year 2010. This building is on the critical path for the regulatory-driven completion of the cleanup of East Tennessee Technology Park by fiscal year 2012.

Uranium/Thorium Reimbursement.—The Committee recommends no funding for this activity, \$20,000,000 below the request.

SCIENCE

Appropriations, 2007	\$3,797,294,000
Budget estimate, 2008	4,397,876,000
Committee recommendation	4,496,759,000

The Committee recommends \$4,496,759,000 for the Office of Science. These funds represent an investment in basic research that is critical to both the future economic competitiveness of the United States and to the success of our national and energy security.

Report on Scientific Cooperation.—The Department is directed to prepare a report supported by the Office of Science and the Office of Energy Supply and Conservation regarding the specific steps the Department is taking to ensure cooperation between the two offices in identifying broad research objectives and goals as well as specific R&D priorities required in the short term. This report should contain information as to how the various Department of Energy laboratories are supporting these activities and budget projections in the next 5 years. This report is due to the Committee concurrent with the President's fiscal year 2009 budget submission.

Advanced Materials Testing.—Many of the stockpile stewardship, Office of Science, and nuclear energy R&D programs face scientific challenges posed by ultra high temperature and pressure and high radiation environments. As such, the Committee urges the Department to begin to develop a research and development roadmap that considers the questions of what types of facilities are needed to perform experiments on materials under extreme temperature and

pressure. This facility should be shared between the Department of Energy and the National Nuclear Security Administration and likewise should contribute to the benefit of both programs.

HIGH ENERGY PHYSICS

For High Energy Physics, the Committee recommends \$789,238,000. Understanding the way the universe works is the key mission of the High Energy Physics program, and it succeeds by probing interactions among matter, energy, space and time. The High Energy Physics program has many promising opportunities to advance our understanding of the universe and its makeup. However, the Department must make important decisions about the future of this program, including balancing the immediate opportunities provided through the Joint Dark Energy Mission and large future investments in the International Linear Collider.

International Linear Collider.—The Committee provides \$60,000,000 to support research to support the U.S. ILC effort within the Accelerator Development, International Linear Collider R&D activities. The Committee appreciates the scientific challenge of building the ILC in the United States, establishing our leadership in this discipline among an international team. Despite the large financial commitment by the President in scientific research, the Committee is concerned that the ILC will crowd out other valuable research as has been demonstrated with both the National Ignition Facility within the NNSA, the Rare Isotope Accelerator and ITER, both within the Office of Science. The Department must provide a cost estimate including an out year funding plan and an explanation of how this initiative will impact other facilities and scientific research.

Joint Dark Energy Mission.—The Committee has consistently urged the Department to move forward toward launch of the Joint Dark Energy Mission [JDEM]. Unfortunately, in spite of the Committee's support and the Department's own scientific facilities planning process, this has not happened. The Department's fiscal year 2008 request for JDEM will cripple the Department's capacity to move forward either in partnership with NASA or as a single agency mission in 2008. Unfortunately, this budget reduction may also discourage international collaborations interested in a near term launch—collaborations which could significantly reduce the United States' costs. The Committee reasserts its strong support of JDEM, directs DOE to down select from among the three JDEM competitors immediately following the decision of the NRC committee, and provides \$7,000,000 above the combined requests for JDEM, SNAP and other Dark Energy research programs to fund the competition and to aggressively ramp up activities focused on a launch in 2014.

NUCLEAR PHYSICS

The Committee provides \$471,319,000 for Nuclear Physics. The Nuclear Physics program fosters fundamental research that will advance our understanding of nuclear matter, helping the United States maintain a leading role in developing nuclear energy, nuclear medicine, and national security.

BIOLOGICAL AND ENVIRONMENTAL RESEARCH

For Biological and Environmental Research [BER], the Committee provides \$605,320,000. BER uses competitive and peer-reviewed research at national laboratories, universities, and private institutions to further the Nation's competitiveness in the scientific arena.

Low Dose Research.—The Committee supports the Department's ongoing research efforts to understand the relationship between low dose radiation exposure and the impact to human health. After eight years of research, the Department is now compiling the data for independent scientific review. Following this review, the Committee encourages the Department to share its finding with other agencies and Congress as it may support review of our existing regulatory thresholds.

Medical Applications and Measurement Science.—Of the funds provided, \$34,000,000 is for Medical Applications and Medical Science. The increase of \$20,000,000 is for nuclear medicine research and should be distributed through a grant program. The Committee is disappointed that for the third year in a row the Department has eliminated from its budget funding for nuclear medicine research.

The Committee recommends that funding be used to support new isotope development R&D and increased availability of research isotopes for critical nuclear medicine applications. The Committee also notes that diagnostics are currently in development between the University of New Mexico and Los Alamos utilizing the unique capabilities of Los Alamos at the IPF at LANSCE and the radiopharmaceutical expertise of UNM at the Center for Isotopes in Medicine.

Congressionally Directed Projects.—The Committee recommendation includes the following congressionally directed projects, within available funds. The Committee reminds recipients that statutory cost sharing requirements may apply to these projects. \$400,000 is provided to the University of Rochester in New York to support biosensor and fuel cell research (Schumer, Clinton); \$2,000,000 is provided to the Neurosciences Institute in Morgantown, West Virginia, to support molecular genetics research (Byrd); \$1,000,000 is provided to the Inland Northwest Research Alliance in Idaho Falls, Idaho, to support water research (Murray, Cantwell); \$500,000 is provided to the Nevada Cancer Institute in Las Vegas to support research of cellular antigens and nuclei acids (Reid); \$2,500,000 is provided to the University of North Dakota in Grand Forks to support antibodies research (Dorgan); \$2,000,000 is provided to the University of California, San Diego to support seismic research (Feinstein); \$500,000 is provided to the University of Massachusetts at Boston to support marine systems research (Kennedy, Kerry); \$3,000,000 is provided to the University of Vermont in Burlington to support research in agricultural, environmental, and biological sciences (Leahy); \$1,000,000 is provided to the University of Vermont in Burlington to conduct research of MRI science (Leahy); \$250,000 is provided to the Center for Nanomedicine at the University of Maryland in Baltimore to support research into new nanoconstructs (Mikulski, Cardin); \$2,000,000 is provided to the

University of Nebraska Medical Center in Omaha to conduct nanoscale imaging of proteins (Ben Nelson, Hagel); \$1,500,000 is provided to WIPP in Carlsbad, New Mexico, to support neutrino research (Domenici, Bingaman); \$12,000,000 is provided the University of New Mexico in Albuquerque, New Mexico, for the Mind Institute ongoing research into brain related research including supporting research of military personnel suffering from Post Traumatic Stress Disorder, depression and traumatic brain injuries (Domenici, Bingaman); \$1,500,000 is provided to New Mexico Tech University in Socorro, New Mexico, for Applied Energy Science Design (Domenici); \$2,000,000 is provided to Jackson State University in Jackson, Mississippi, for Bioengineering Research Training (Cochran); \$600,000 is provided to the University of Mississippi Medical Center in Jackson, Mississippi, to fund research in the areas of increasing efficiency by reducing the amount of contrast media needed for certain procedures (Cochran); \$6,000,000 is provided to the University of California, Los Angeles for the Institute for Molecular Medicine radiation research (Stevens); \$1,200,000 is provided to Northwest Missouri State University in Maryville, Missouri, for the Nanoscience Education Project (Bond); \$1,000,000 is provided to The University of Louisville Regional NMR Facility in Louisville, Kentucky, to support ongoing research in fundamental processes of electron transport systems and the structural biology of proteins (McConnell); \$1,000,000 is provided to Ultra-dense Supercomputing memory storage in Colorado for further research in this field (Allard); \$1,000,000 is provided to Northern Hemisphere Pierre Auger Observatory in Colorado for the northern hemisphere location of a particle detection observatory (Allard); \$1,000,000 is provided to University of Oklahoma in Norman, Oklahoma, for the Large Scale Application of Single-Walled Carbon Nanotubes (Inhofe); \$1,000,000 is provided to the University of Maine in Orono, Maine, for research in Integrated Forest Products Refinery technology (Snowe, Collins); \$1,000,000 is provided to Wake Forest University in Winston-Salem, North Carolina, for the Institute for Regenerative Medicine (Burr, Dole); \$1,100,000 is provided to the South Dakota Catalyst Group for Alternative Energy to support research that will synthesize, characterize and scale up production of catalysts important for energy alternatives to fossil fuels (Thune); \$1,500,000 is provided to Louisiana Tech University in Ruston, Louisiana, for research in nanotechnology (Vitter, Landrieu); \$300,000 is provided to Dominican University in River Forest, Illinois for research related to the role of transglutaminases in Alzheimer's and Huntington's diseases (Durbin); \$300,000 is provided to the University of Chicago to research multi-modality, image-based markers for assessing breast density and structure to determine risk of breast cancer (Durbin).

BASIC ENERGY SCIENCES

The Committee recommends \$1,512,257,000 for Basic Energy Sciences, an increase of \$13,760,000 from the budget request. The Committee fully funds facilities within this account including the four Nanoscale Science Research Centers and provides \$15,992,000 for the Manuel Lujan, Jr., Neutron Scattering Center. The Com-

mittee provides \$17,000,000 for the Experimental Program to Stimulate Competitive Research [EPSCoR].

ADVANCED SCIENTIFIC COMPUTING RESEARCH

The Committee provides \$334,898 for Advanced Scientific Computing Research. The increase of \$7,700,000 is for the Oak Ridge Leadership Computing Facility to maintain budget and cost schedule. The Committee has also included language in the NNSA Advanced Simulation and Computing program to encourage the Office of Science and the NNSA to work together to establish a high performance computing capability within the Department by joining the capabilities of both program support advanced computing architecture, improvements in cyber security and to support the development of advanced software and algorithms to increase the speed and efficiency of existing and future systems. The Committee does not support the Department transferring \$19,000,000 to the Department of Defense to play a minor role in that effort. Instead, the Committee has shifted \$13,000,000 from the Office of Science to the NNSA Advanced Computing and Simulation program to reestablish the Department leadership role in high performance computing.

FUSION ENERGY SCIENCES

For Fusion Energy Sciences, the Committee recommends \$427,850,000. This program advances plasma science, fusion science, and fusion technology through collaborations among U.S. universities, industry, national research laboratories, and the international fusion community.

High Energy Density Plasma Laboratory Program.—The Committee is pleased that the Department has developed a multidisciplinary research program, which this Committee has been an advocate for the past several years. The Committee believes this program will provide greater interaction between the Office of Science researchers and the NNSA scientists and provide greater access to user facilities such as the Z machine, NIF and Omega. While these activities have their primary responsibility in the weapons program, these facilities can offer scientists new capabilities to support their experiments. The Committee encourages the Department to increase their investment in this modest program to ensure it future success. The Committee supports the budget request of \$12,281,000 for the Office of Science. The Committee notes a similar amount has been included in the NNSA program.

SCIENCE LABORATORIES INFRASTRUCTURE

The Committee provides \$88,956,000 to support infrastructure activities, an increase of \$10,000,000 over the budget request. The Committee continues to be supportive of the Physical Sciences Facility at the Pacific Northwest National Laboratory. The Physical Sciences Facility is supported by the Office of Science, the National Nuclear Security Administration [NNSA], and the Department of Homeland Security. The Committee is aware of the MOU that was signed by the three agencies in November 2006 but it is unable to understand why the fiscal year 2008 budget request does not support this interagency agreement. This Committee provides the re-

quested amount of \$35,000,000 from the Office of Science. The Committee is aware that a portion of this project is to be developed by a third party and that the financing proposal has not yet been approved by OMB. To prevent further delay of this project the Committee provides an additional \$10,000,000 to proceed with the design of the buildings expected to be financed by the third party. All funding provided in fiscal year 2008 and all funds provided in previous bills for this project shall not be held in reserve.

SAFEGUARDS AND SECURITY

The Committee recommendation provides \$76,592,000 for Safeguards and Security activities, the same as the budget request. The Safeguards and Security program provides funding for physical security, information protection, and cyber security for the national laboratories and facilities of the Office of Science.

SCIENCE PROGRAM DIRECTION

The Committee recommends \$184,934,000 for the Office of Science Program Direction, the same as the budget request.

SCIENCE WORKFORCE DEVELOPMENT

These initiatives support the missions of the Department's Workforce Development for Teachers and Scientists program. The Committee provides \$11,000,000.

NUCLEAR WASTE DISPOSAL

Appropriations, 2007	\$99,206,000
Budget estimate, 2008	202,454,000
Committee recommendation	204,054,000

The Committee recommendation for the Office of Civilian Radioactive Waste Management include \$202,454,000 from fees collected by the Secretary which are deposited into the fund established by Public Law 97-425 as amended and \$242,046,000 provided from the defense appropriation. An additional \$1,600,000 is provided for a total of \$446,100,000.

The Committee directs the Department to exercise great discretion to ensure that any work undertaken at or near Yucca Mountain is consistent with the Nuclear Waste Policy Act's requirements that no repository construction can be undertaken prior to the issuance of a repository license by the Nuclear Regulatory Commission. The Committee provides \$1,600,000 for the cooperative agreement between the Department of Energy and Inyo County, California. (Feinstein)

INNOVATIVE TECHNOLOGY LOAN GUARANTEE PROGRAM

Appropriations, 2007	\$7,000,000
Budget estimate, 2008	8,390,000
Committee recommendation	8,390,000

The Committee recommendation to support the Office of Loan Guarantees is \$8,390,000, as requested. The Committee has provided full funding to enable to the Department to hire experienced staff with a background in project finance or have experience with existing U.S. Government agencies such as the Overseas Private

NON-DEFENSE ENVIRONMENTAL CLEANUP					
West Valley Demonstration Project	78,591	54,395	78,895	+ 304	+ 24,500
Gaseous Diffusion Plants	66,860	38,120	38,120	- 28,740	.....
Depleted Uranium Hexafluoride Conversion, 02-U-101	52,179	.....	.....	- 52,179	.....
Fast Flux Test Reactor Facility (WA)	34,843	10,342	10,342	- 24,501	.....
Small Sites	117,214	78,080	78,080	- 39,134	.....
Legacy management .....	.....	.....	.....	.....	.....
Use of Prior year balances .....	.....	.....	- 10,000	- 10,000	- 10,000
TOTAL, NON-DEFENSE ENVIRONMENTAL CLEANUP	349,687	180,937	195,437	- 154,250	+ 14,500
URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND					
Decontamination and decommissioning	536,806	553,509	573,509	+ 36,703	+ 20,000
Uranium/thorium reimbursement	19,800	20,000	.....	- 19,800	- 20,000
SUBTOTAL, URANIUM ENRICHMENT D&D FUND	556,606	573,509	573,509	+ 16,903	.....
Uranium sales and barter (scorekeeping adjustment) .....	.....	.....	.....	.....	.....
TOTAL, UED&D FUND/URANIUM INVENTORY CLEANUP	556,606	573,509	573,509	+ 16,903	.....
SCIENCE					
High energy physics:					
Proton accelerator-based physics	374,733	389,672	389,672	+ 14,939	.....
Electron accelerator-based physics	104,127	79,763	79,763	- 24,364	.....
Non-accelerator physics	59,865	72,430	79,430	+ 19,565	+ 7,000
Theoretical physics	56,407	56,909	56,909	+ 502	.....
Advanced technology R&D	156,654	183,464	183,464	+ 26,810	.....
Total, High energy physics	751,786	782,238	789,238	+ 37,452	+ 7,000
Nuclear physics	410,646	453,619	453,619	+ 42,973	.....
Construction:					
07-SC-02 Electron beam ion source Brookhaven National Laboratory, NY	5,000	4,200	4,200	- 800	.....
06-SC-01 Project engineering and design (PED) 12 GeV continuous electron beam accelerator facility up- grade, Thomas Jefferson National Accelerator facility (was project 07-SC-001), Newport News, VA	7,000	13,500	13,500	+ 6,500	.....
06-SC-02 Project engineering and design (PED), Electron beam ion source, Brookhaven National Labora- tory, Upton, NY	120	.....	.....	- 120	.....
Total, Nuclear physics	422,766	471,319	471,319	+ 48,553	.....

DEPARTMENT OF ENERGY—Continued

[In thousands of dollars]

	Revised enacted	Budget estimate	Committee recommendation	Committee recommendation compared to—	
				Revised enacted	Budget estimate
Biological and environmental research:					
Biological research	349,097	393,773	467,196	+ 118,099	+ 73,423
Climate change research	134,398	138,124	138,124	+ 3,726	.....
Total, Biological and environmental research	483,495	531,897	605,320	+ 121,825	+ 73,423
Basic energy sciences:					
Research:					
Materials sciences and engineering research	898,481	1,093,219	1,106,979	+ 208,498	+ 13,760
Chemical sciences, geosciences and energy biosciences	226,740	283,956	283,956	+ 57,216	.....
Subtotal, Research	1,125,221	1,377,175	1,390,935	+ 265,714	+ 13,760
Construction:					
08-SC-01 Advanced light source (ALS) user support building, LBNL, CA		17,200	17,200	+ 17,200	.....
08-SC-10 Project engineering and design (PED) Photon ultrafast laser science and engineering (PULSE) building renovation, SLAC, CA		950	950	+ 950	.....
08-SC-11 Photon ultrafast laser science and engineering (PULSE) building renovation, SLAC, CA		6,450	6,450	+ 6,450	.....
07-SC-06 Project engineering and design (PED) National Synchrotron light source II (NSLS-II)	3,000	45,000	45,000	+ 42,000	.....
07-SC-12 Project engineering and design (PED) Advanced light source user building, LBNL	1,500	.....	.....	- 1,500	.....
05-R-320 LINAC coherent light source (LCLS)	101,000	51,356	51,356	- 49,644	.....
05-R-321 Center for functional nanomaterials (BNL)	18,864	366	366	- 18,498	.....
04-R-313 The molecular foundry (LBNL)	257	.....	.....	- 257	.....
03-SC-002 Project engineering & design (PED) SLAC	161	.....	.....	- 161	.....
03-R-313 Center for Integrated Nanotechnology	247	.....	.....	- 247	.....
99-E-334 Spallation neutron source (ORNL) .....	.....	.....	.....	.....	.....
Subtotal, Construction	125,029	121,322	121,322	- 3,707	.....
Total, Basic energy sciences	1,250,250	1,498,497	1,512,257	+ 262,007	+ 13,760
Advanced scientific computing research	283,415	340,198	334,898	+ 51,483	- 5,300
Fusion energy sciences program	318,950	427,850	427,850	+ 108,900	.....

Science laboratories infrastructure:					
Laboratories facilities support:					
Infrastructure support	1,520	1,520	1,520		
General plant projects					
Construction:					
07-SC-05 Physical science facilities, PNNL	10,000			- 10,000	
07-SC-04 Science laboratories infrastructure project engineering and design (PED)	8,908			- 8,908	
04-SC-001 Project engineering and design (PED), various locations					
03-SC-001 Science laboratories infrastructure MEL-001 Multiprogram energy laboratory infrastructure projects, various locations	10,131	63,529	73,529	+ 63,398	+ 10,000
Subtotal, Construction	29,039	63,529	73,529	+ 44,490	+ 10,000
Subtotal, Laboratories facilities support	30,559	65,049	75,049	+ 44,490	+ 10,000
Oak Ridge landlord	5,079	5,079	5,079		
Excess facilities disposal	6,348	8,828	8,828	+ 2,480	
Total, Science laboratories infrastructure	41,986	78,956	88,956	+ 46,970	+ 10,000
Safeguards and security	75,830	76,592	76,592	+ 762	
Workforce development for teachers and scientists	7,952	11,000	11,000	+ 3,048	
Science program direction:					
Field offices	95,716	104,193	104,193	+ 8,477	
Headquarters	70,753	80,741	80,741	+ 9,988	
Total, Science program direction	166,469	184,934	184,934	+ 18,465	
Subtotal, Science	3,802,899	4,403,481	4,502,364	+ 699,465	+ 98,883
Less security charge for reimbursable work	- 5,605	- 5,605	- 5,605		
TOTAL, SCIENCE	3,797,294	4,397,876	4,496,759	+ 699,465	+ 98,883
NUCLEAR WASTE DISPOSAL					
Repository program	33,566	127,780	129,380	+ 95,814	+ 1,600
Program direction	65,640	74,674	74,674	+ 9,034	
Integrated spent fuel recycling					