Department of Energy

FY 1997 Congressional Budget Request

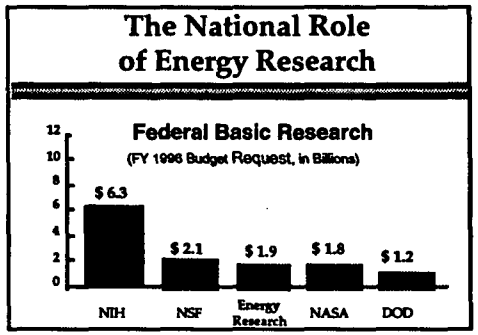
(discretionary budget authority in thousands of dollars)

	FY 1995 Comparable Appropriation	FY 1996 Comparable Appropriation	FY 1997 Request to Congress	FY 1997 vs. FY 1996	
Energy Research					
Biological and environmental research	408,245	406,401	379,075	-27,326	-6.7%
Fusion Energy	333,292	227,394	255,600	28,206	12.4%
Basic energy sciences	596,727	654,576	653,675	-901	-0.1%
Computational and technology research	175,778	150,498	158,143	7,645	5.1%
Advanced neutron source	12,781	——	——	——	——
Energy research analyses	3,330	3,414	2,000	-1,414	-41.4%
Multiprogram energy labs - facility support	28,702	34,105	28,885	-5,220	-15.3%
University and science education programs	61,461	18,900	19,900	1,000	5.3%
Program direction	50,967	43,704	42,154	-1,550	-3.5%
Small business innovation research (SBIR)	72,439	——	——	——	——
Subtotal, Energy Research	1,743,722	1,538,992	1,539,432	440	0.0%
Use of prior year balances	-19,696	-35,982	——	35,982	100.0%
Total, Energy Research	**1,724,026**	**1,503,010**	**1,539,432**	**36,422**	**2.4%**

DEPARTMENT OF ENERGY
FY 1997 CONGRESSIONAL BUDGET SUBMISSION
OFFICE OF ENERGY RESEARCH

EXECUTIVE BUDGET SUMMARY

Mission



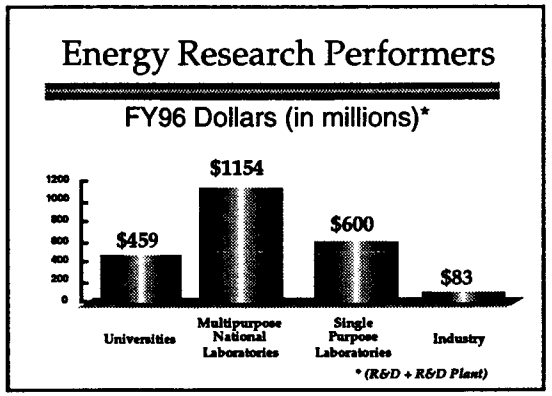
The Office of Energy Research (ER) invests in basic research to enable the Department to meet its science and technology intensive missions. Our programs produce scientific and technical knowledge needed to create new and improved energy technologies, to maintain U.S. scientific leadership in understanding energy and matter, and to provide facilities for research in the physical and life sciences needed by U.S. researchers for forefront research. Our research extends to an unusually broad spectrum of scientific disciplines, including materials sciences, chemical sciences, engineering sciences, geosciences, energy biosciences, computational and applied mathematical sciences, high energy and nuclear physics, fusion science, biological and biomedical sciences, and environmental research. Over the past year under the Strategic Facilities Initiative started in FY 1996, ER has increased access to its basic research facilities to scientists in these fields.

ER's activities comprise over 95 percent of the science and technology business line of the DOE Strategic Plan, *Fueling a Competitive Economy.* ER programs support several thousand individual projects and hundreds of laboratories, universities, and other research facilities throughout the United States. Through direct support and access to our user facilities, ER enables multidisciplinary research on important national problems and individual investigations by scientists and engineers in many disciplines.

Basic research supported by ER is increasingly important to America. As reported by the Wall Street Journal, "Some of the biggest U.S. Corporations have cut back sharply on research into 'basic science'--the exploration of how nature works at a fundamental level--to pursue short-term goals and to commercialize products more quickly." As 16 chairpersons and CEO's of major U.S. corporations wrote to the Congress, "History has shown that it is federally sponsored research that provides the truly patient capital needed to carry out basic research and create an environment for inspired risk-taking that is essential to technological discovery. "

ER supports the Federal Government's third largest basic research program. Only the National Institutes of Health and National Science

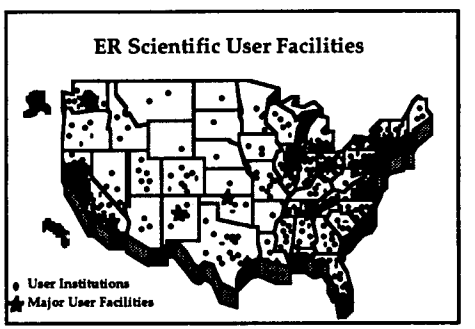
Foundation programs are larger. Over 18,000 scientists and engineers from almost 600 universities, companies and government laboratories performed research at ER's laboratories and many special user facilities in 1995. These facilities include large and expensive x-ray and gamma-ray "light" sources, research reactors, and high energy and nuclear physics particle accelerators located in 11 states. Our research at universities helps educate and nurture the next generation of scientists and engineers. More important, these young people bring the creative enthusiasm of youth to tackle national problems.



Over the past 50 years, DOE has established an extensive national laboratory and university network of expertise in science and engineering. This network has supported the research of over 67 Nobel Prize winners. Today, ER multidisciplinary research at these facilities produces knowledge, instruments, techniques, and materials that others can use for additional research or for technology development. ER's Human Genome Program, for example, originated from concerns about the genetic effects of energy-related nuclear radiation and chemical byproducts. Today, its discoveries enable medical researchers to develop new biotechnology for diagnosing and treating diseases such as cancer.

Consistent with the Department's Strategic Plan, ER has identified five goals. Our five broad goals point us in the right direction. They sustain our longstanding traditions of emphasizing scientific excellence and working in partnership with other organizations dedicated to advancing energy and supporting science. Reaching them will help provide America with the range of energy and policy options it needs for future prosperity. The goals are:

- Enable the United States to maintain a position of world leadership in science, mathematics, and engineering needed to enhance energy productivity and ensure reliable energy services while preserving human and environmental health and safety.
- Obtain major new insights into the nature of energy and matter to better understand our natural world.
- Build and operate the best and most advanced scientific research facilities and infrastructure to advance the frontiers of science.
- Ensure that ER's programs are of high quality, highly productive, and that they are widely known, valued, and trusted.
- Ensure that ER programs protect our workers, the public and the environment during the support of and conduct of research.



Strategy

ER's budget request of $2,548.6 million for FY 1997 is shown in Table 1 by major ER program and appropriation. ER is seeking $653.7 million for its Basic Energy Sciences program, $379.1 million for its Biological and Environmental Research program, $679.1 million for its High Energy Physics program, $318.4 million for the Nuclear Physics program, $255.6 million for the Fusion Energy Sciences program, and $158.1 million for Computational and Technology Research. The request also includes $19.1 million for the University and Science Education program, $28.9 million for the Multiprogram Energy Laboratories Facility support program, $11.6 million for General Science Program Direction, $42.2 million for ER Energy Supply Program Direction, and $2.0 million for Energy Research Analysis.

Energy Research Goals

- World leadership in energy science
- New insights into the nature of energy and matter
- The best research infrastructure for energy science and basic research
- High quality, highly productive, widely known, valued, and trusted research programs
- Protection of our workers, the public and the environment during the support of and conduct of research

ER's FY 1997 request includes a balanced set of investments that uphold the Office's leadership in fundamental research, scientific facilities, and building the nation's scientific and technical strength. To leverage these investments with limited resources, we are working with university, industrial, and national laboratory research partners to multiply the effectiveness of our activities.

Strategies to support our goals reaffirm our traditional reliance on merit review with peer evaluation of investigator-initiated proposals as we seek new directions for our research programs. These programs will help expand the Nation's human and intellectual resources to ensure that America's capabilities for scientific and technological innovation are constantly replenished. The strategies are:

- *Support science with a purpose.* To warrant Office of Energy Research support, a research project must be mission-relevant. That is, it must advance knowledge in key fields and disciplines, further pursuit of departmental missions, or enable timely response to national goals. Our programs also cover fields not covered by traditional disciplines that offer challenges for new knowledge and opportunities for fulfilling departmental missions and national goals.

- *Provide large scale facilities.* ER supports large and complex research facilities to meet the Nations science and technology goals. Specifically, we focus on facilities that are too expensive for a single institution or group of institutions to build. We make the facilities available for the best research proposed by university, industrial, and government scientists as decided by peer review. Our strategy includes streamlined management of these facilities and investments in technology development. Timely repair and maintenance of their general purpose infrastructure advances the capabilities and reduces the costs of facilities.

- *Coordinate research on complex national problems important to DOE missions.* ER programs coordinate and fund multidisciplinary research at universities and the National Laboratories on complex national problems requiring a long investment horizon to find satisfactory solutions. The problems are found in areas such as fusion energy sciences, global climate change, and advanced and environmentally conscious manufacturing. Additional areas include advanced materials and processing, medical applications of advanced imaging techniques, high performance computing and communications, and mapping and sequencing the human genome. The National Laboratories, with their multidisciplinary teams, are special resources for coordinating and performing this research.

Energy Research Achievements

- Nobel Prize
  - » 1994 Physics
  - » 1995 Physics and Chemistry
- Top Quark Production at Fermilab
- World Record in Tokamak Fusion Test Reactor
- First Beam in Advanced Photon Source
- Human Genome Program - 1996 Completed Maps of Two Human Chromosomes

- *Assure excellence in research.* We emphasize initiation of proposals by investigators and select the best using peer review. Our various standing advisory committees help us use the Nation's science and technology communities to identify the most important research to support and the best way to do it. Our program managers measure research quality within technical areas or disciplines with scheduled periodic evaluations, including assessment by panels of technical experts. For excellence in the future, we reach out to improve the quality of and access to science, mathematics, and engineering education to replenish America's storehouse of scientific talent.

- *Continuously improve the quality of our administrative processes.* We increase our effectiveness and productivity by improving program management practices and by using performance based contracts with our laboratories. Our operating policies emphasize the central role of the grantees and contractors in achieving environmental, safety, and health excellence through continuing self assessments and corrective action systems. Quality improvement includes leveraging resources through domestic and international partnerships. ER's programs seek out America's excellent scientists, employees, and contractors from all of its people.

- *Tell better the role and benefits of ER.* We are reaching out more than ever through presentations, newsletters, and the Internet to inform the public about the exciting results of ER research. An information infrastructure under development will ease communications, research collaborations, and remote access to shared resources and facilities.

The Office's basic research portfolio has brought great success in advancing science, the Department's missions and the welfare of the Nation. In 1995, research supported by the Office of Energy Research was cited in Nobel Prize awards in physics and chemistry. The award winning physicists discovered the neutrino and the tau lepton, key steps in identifying the fundamental particles in nature. Our chemistry award winners found the effect of freons on the ozone layer in the Earth's atmosphere and, thus, the effect of humankind on the environment.

Our physics researchers discovered the Top Quark--the last undiscovered quark of the six predicted by the Standard Model of physics--a long awaited scientific achievement. ER research advanced our understanding of such important phenomena as Global Climate Change. It explored new areas of science such as the Human Genome that will have extensive effects on human health and the environment. In the human health area, our human genome research program published detailed maps of two human chromosomes.

ER basic research enabled industrially promising innovations such as a technique to rapidly screen new compounds and materials to identify their properties. Other ER research created flexible superconducting tapes carrying electrical currents 100 times greater than previously possible which may lead to more efficient electrical storage and transmission devices. ER research on high speed computing and communication pointed the way to technology that can accelerate growth of the information highway by doubling data transmission rates over telephone lines.

In 1995, *R&D Magazine* recognized inventions engendered by ER-supported basic research with 7 R&D-100 Awards. Each year, *R&D Magazine* presents these awards to inventions with exceptional industrial promise. The 1995 award-winning technologies, for example, will aid in soil cleaning, ultrasonic imaging, and emissions monitoring.

On the facilities front, our researchers in Virginia in 1995 started the first experiments at the Continuous Electron Beam Accelerator Facility. The Advanced Photon Source at the Argonne National Laboratory, the B-Factory at the Stanford Linear Accelerator Center, the Environmental Molecular Science Laboratory at the Pacific Northwest Laboratory, and the Combustion Research Facility at the Sandia National Laboratories are on schedule. The Tevatron accelerator at Fermilab set a world record for particle beam luminosity. We completed the Radioactive Ion Beam Facility at Oak Ridge National Laboratory that allows scientists to learn the properties of unstable nuclei encountered in astrophysics.

Energy Research Strategies

- Support science with a purpose
- Coordinate multidisciplinary research on complex national problems important to the DOE missions
- Provide large scale facilities and technology for doing science
- Assure excellence in research
- Continuously improve the quality of our administrative processes
- Tell better the role and relevance of Energy Research

Major Changes

In formulating the program this year we have as our highest priorities: sustain progress in high energy physics and nuclear physics, transition to a fusion energy sciences program, optimize use of ER's scientific and computational facilities, selective expansion of programs, and leverage basic research through partnerships with DOE technology R&D programs

For FY 1997, the Biological and Environmental Research Program will give more emphasis to biotechnology research. Drawing on core competencies developed in ER's human genome and environmental research programs, we will speed development of new bioremediation technology for

use at DOE facilities. ER's research aimed at completing mapping and sequencing of the human genome is on target for completion in the year 2005. In FY 1997, more emphasis will be devoted to high throughput genome sequencing. We continue research into new ways to image the effects of carcinogens. In FY 1997, ER will expand its exploration of the world of microbial diversity, mapping and sequencing the genomes of microorganisms for possible use in bioremediation.

Consistent with its reduced budgets, the fusion program is being redirected toward smaller-scale, long-term fundamental research at universities and our laboratories as recommended by the Fusion Energy Advisory Committee. In addition, the program will preserve our capabilities to contribute to international efforts to develop fusion as an energy technology. It will do this by advancing plasma science; by developing fusion science, technology, and plasma containment innovation in the domestic program; and by remaining a partner in the international effort.

Energy Research FY 1997 Priorities

- Sustain High Energy and Nuclear Physics
- Transition To A Fusion Energy Sciences Program
- Maintain Science Facilities Utilization
- Selective Expansion of Programs
- Integrate Basic Research and Applied Programs

As recommended by the Yergin Panel, we are strengthening collaborations with the Office of Environmental Management and the Office of Energy Efficiency and Renewable Energy. In partnership with the Office of Environmental Management, for example, we perform fundamental research that addresses problems in environmental management, remediation, and restoration that are intractable without new, fundamental scientific information and technologies. In partnership with the Office of Energy Efficiency, for example, we perform basic research in support of the Partnership for a New Generation of Vehicles. This research helps to bridge a gap between the Department's fundamental research and its other programs.

The ER high energy physics program continues to explore participation in the Large Hadron Collider project at CERN. This activity will enable the U.S. to participate in new discoveries at the highest energy frontier. We plan to complete the B-factory project at the Stanford Linear Accelerator Center in FY 1998 and the Main Injector project at Fermilab in FY 1999. Both projects are on schedule and within estimated costs. The Main Injector will provide a doubling of intensity for the fixed target program and a fivefold increase in luminosity for collider experiments. This will, among other things, let us take a closer look at the nature of the top quark. The B-factory will enable scientists to study charge-parity violation, a process that explains the complete dominance of matter over antimatter in our universe and, therefore, our very existence. In nuclear physics, construction of the Relativistic Heavy Ion Collider (RHIC) continues. Total project cost, however, has increased because of rebaselining necessitated by a FY 1996 congressional funding reduction to the project.

We are extending the availability and utility of our laboratories and user facilities through high performance computing and communications. Advances from our research are part of the joint Energy Research and Defense Programs DOE 2000 Initiative. The new capabilities will enable scientists nationwide to work together on problems as easily as if they were at the same National Laboratory or

facility. We denote this as transforming our research infrastructure from distinct laboratories into "collaboratories."

To help strengthen America's technical work force and support DOE's missions, ER will continue its leadership in the national effort to improve math, science, and engineering education. In FY 1996, over 10,000 undergraduate, graduate, and postdoctoral students and faculty will participate in DOE science education programs at our national laboratories.

In its action on the FY 1996 budget, the Congress directed that all Federal staff be budgeted in single Program Direction decision units for each appropriation. Energy Research's General Sciences and Research staffing has always been budgeted at the appropriation level and the congressional direction has not had any impact on that account. Energy Research's Energy Supply Research and Development staffing, however, has previously been included in the individual program accounts in the Energy Supply Research and Development appropriation, namely Basic Energy Sciences, Biological and Environmental Research, Fusion, etc. In compliance with the referenced congressional direction, those various accounts have been merged into a single Energy Research-Energy Supply Program Direction account for the first time in FY 1997.

Investing In The Future

"Investment in R&D--public and private--is America's investment in its future. It is a major driver of economic growth and job creation, and one of the most important foundations for America's future economic competitiveness and international leadership."

Secretary of Energy Advisory Board
Task Force on Strategic Energy Research and Development
Daniel Yergin, Chairman

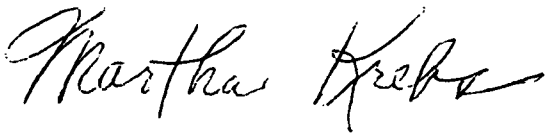
Details supporting the budget request for the two Program Direction accounts are included in the narrative budget justification for each. The combined request for FY 1997 for the two accounts is $53.7 million. The attached chart illustrates the distribution of the FY 1997 request among six major categories.

Using any reasonable criteria, Energy Research is among the most efficiently managed research organizations in the Federal Government. The Energy Research program is one of the largest and most complex Federal basic science programs. Energy Research's staffing levels, however, are small compared with those of other Federal research organizations and other Department of Energy program offices. Furthermore, Energy Research has been a very conservative user of support services contracts. Planned FY 1997 support services funding represents a mere four tenths of a percent of the total Energy Research budget request. The FY 1997 budget requested for Program Direction is essential for Energy Research to sustain technical excellence in its programs and to meet its program and advisory missions.

Closing

Through multidisciplinary research, our programs advance fundamental understanding of matter and enable energy and complex systems

leading to efficient, diverse and reliable energy sources. The knowledge gained leads to improved health and environmental quality and to a more productive and competitive economy. Energy Research provides the United States with the finest and most advanced scientific research facilities and infrastructure. To get the most research out of every dollar appropriated, we work to ensure our programs are the highest quality and productive. It is in the interest of the Nation that these programs are sustained for the benefit of future generations.



Martha A. Krebs
Director
Office of Energy Research

OFFICE OF ENERGY RESEARCH
FY 1997 CONGRESSIONAL BUDGET SUBMISSION
B/A
(dollars in thousands)
Table 1
Funding By Program and Appropriation (Comparable)

	FY 1995 Conf. Approp.	FY 1996 Conf. Approp.	FY 1997 Cong. Request
Energy Supply R&D			
Basic Energy Sciences	596,727	$654,576	$653,675
Computational and Technology Research	175,778	150,498	158,143
Advanced Neutron Source	12,781	0	0
Fusion Energy Sciences	333,292	227,394	255,600
Biological and Environmental Research	408,245	406,401	379,075
Energy Research Analyses	3,330	3,414	2,000
University and Science Education	61,461	18,900	19,900
Multiprogram Energy Labs-Facilities Support	28,702	34,105	28,885
ER Energy Supply R&D Program Direction	50,967	43,704	42,154
Small Business Innovative Research	68,993	0	0
Small Technology Transfer Research	3,446	0	0
General Reduction for Use of Prior Year Balances	-19,696	-35,982	0
Total, Energy Supply R&D-Energy Research	1,724,026	1,503,010	1,539,432
General Science and Research			
High Energy Physics	632,163	667,000	679,125
Nuclear Physics	326,776	304,500	318,425
General Science Program Direction	11,400	10,650	11,600
General Reduction for Use of Prior Year Balances	-10	0	0
Total, General Science and Research	970,329	982,150	1,009,150
TOTAL, ENERGY RESEARCH	$2,694,355	$2,485,160	$2,548,582

OFFICE OF ENERGY RESEARCH
FY 1997 CONGRESSIONAL BUDGET SUBMISSION
B/A
(dollars in thousands)
Table 2
Funding By Cross-Cutting Area

	FY 1995 Conf. Approp	FY 1996 Conf. Approp.	FY 1997 Cong. Request
Global Climate Change			
Biological and Environmental Research	118,500	110,800	112,400
Climate Change Action Plan	0	0	0
Partnership for A New Generation of Vehicles			
Basic Energy Sciences	0	5,000	7,800
Pollution Prevention			
Fusion Energy Sciences	0	10	0
High Energy Physics	220	340	340
Nuclear Physics	0	900	0
Biological and Environmental Research	800	1,040	480
Multiprogram Energy Laboratory Facilities Support	900	1,340	620
Other	245	220	360
Science and Education Programs 1/			
University and Science Education	61,466	18.900	19,900
Laboratory Technology Research	46,539	17,659	21,789

1/ In addition, Energy Research Support for college and university grants totals $493 million in FY 1995, $459 million in FY 1996, and $454 million in FY 1997. Much of this contributes to the education of scientists and engineers.

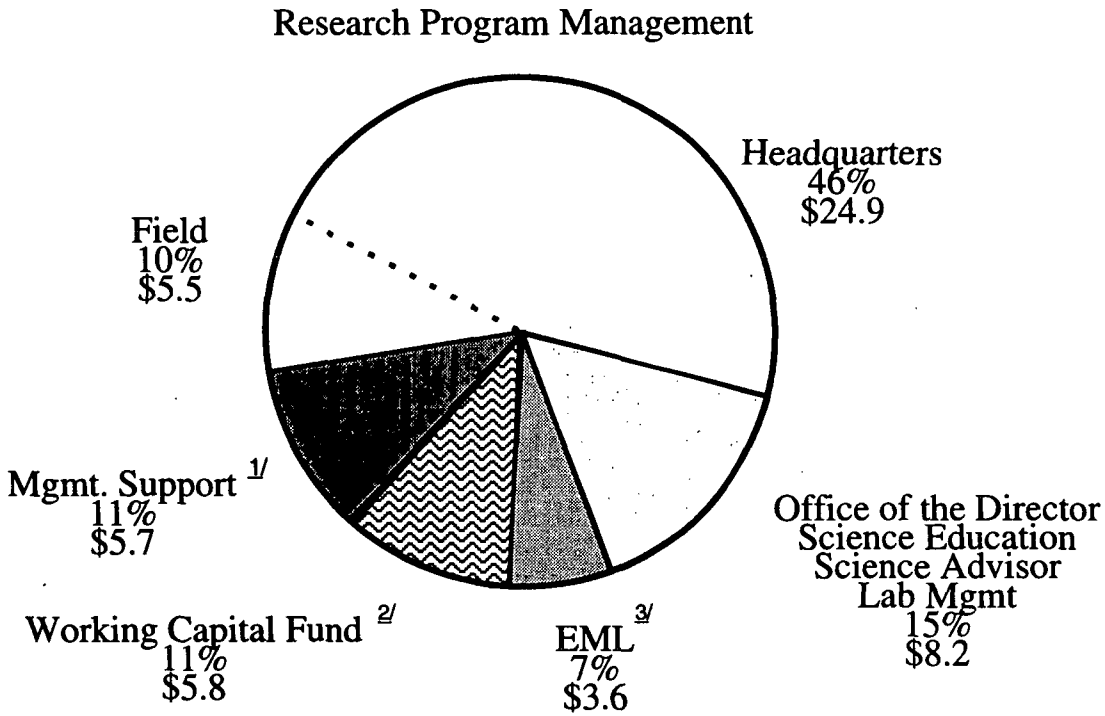
OFFICE OF ENERGY RESEARCH
FY 1997 CONGRESSIONAL BUDGET SUBMISSION
(FTEs)

Federal Staffing Summary

	FY 1995 Conf. Approp.	FY 1996 Conf. Approp.	FY 1997 Cong. Request
ER-Energy Supply R&D Program Direction			
Field	75	67	56
Headquarters	347	273	254
Total, ER-Energy Supply R&D Program Direction	422	340	310
General Science Program Direction			
Field	33	33	33
Headquarters	63	59	57
Total, General Science Program Direction	96	92	90
Total Energy Research			
Field	108	100	89
Headquarters	410	332	311
Total, Energy Research	518	432	400

OFFICE OF ENERGY RESEARCH
FY 1997 CONGRESSIONAL BUDGET SUBMISSION

PROGRAM DIRECTION FUNDING BY CATEGORY
($ in millions)



Total Program Direction = $53.7

1/ Administrative support e.g. budget, administrative, procurement, construction, and Environmental, Safety and Health support.

2/ Funds for centrally provided common goods and services e.g.utilities, maintenance, printing, copying etc.

3/ Environmntal Measurements Laboratory, New York City.

DEPARTMENT OF ENERGY
FY 1997 CONGRESSIONAL BUDGET REQUEST
B/A IN THOUSANDS OF DOLLARS
SITE FUNDING
(dollars in thousands)

AMES LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$15,475	$16,028	$16,227
Biological and Environmental Research	657	596	589
Computational and Technology Research	6,053	5,341	4,570
University and Science Education	428	95	100
TOTAL AMES LABORATORY	$22,613	$22,060	$21,486

ARGONNE NATIONAL LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$177,375	$145,511	$141,579
Advanced Neutron Source	(200)	0	0
Fusion Energy Sciences	7,743	5,025	4,070
Biological and Environmental Research	19,318	15,011	8,318
Computational and Technology Research	20,104	12,551	11,558
High Energy Physics	8,918	8,580	8,410
Nuclear Physics	15,623	15,491	16,220
Energy Research Analysis	300	150	0
University and Science Education	5,288	2,255	2,700
Multiprogram Energy Laboratories-Facilities Support	6,371	8,522	6,238
TOTAL ARGONNE NATIONAL LABORATORY	$260,840	$213,096	$199,093

BROOKHAVEN NATIONAL LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$71,949	$82,252	$80,467
Fusion Energy Sciences	83	97	97
Biological and Environmental Research	31,051	25,804	27,032
Computational and Technology Research	8,530	3,031	4,500
High Energy Physics	76,347	73,712	70,782
Nuclear Physics	99,655	99,320	105,875
Energy Research Analyses	100	0	0
University and Science Education	2,063	695	900
Multiprogram Energy Laboratories-Facilities Support	7,782	9,725	13,302
TOTAL BROOKHAVEN NATIONAL LABORATORY	$297,560	$294,636	$302,955

DEPARTMENT OF ENERGY
FY 1997 CONGRESSIONAL BUDGET REQUEST
B/A IN THOUSANDS OF DOLLARS
SITE FUNDING
(dollars in thousands)

CONTINUOUS ELECTRON BEAM ACCELERATOR FACILITY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$0	$0	$0
High Energy Physics	211	220	211
Computational and Technology Research	669	150	180
University and Science Education	593	100	150
Fusion Energy Sciences	0	5	0
Nuclear Physics	69,103	67,375	69,000
TOTAL CONTINUOUS ELECTRON BEAM ACCEL. FAC...	$70,576	$67,850	$69,541

FERMI NATIONAL ACCELERATOR LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Computational and Technology Research	$205	$0	$0
Biological and Environmental Research	1,050	1,575	2,100
University and Science Education	1,257	355	350
High Energy Physics	248,631	256,213	259,743
TOTAL FERMI NATIONAL ACCEL. LAB	$251,143	$258,143	$262,193

IDAHO NATIONAL ENGINEERING LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$3,660	$3,024	$3,138
Fusion Energy Sciences	3,223	2,732	2,323
Biological and Environmental Research	3,340	2,326	2,445
Nuclear Physics	0	0	100
University and Science Education	375	120	150
Computational and Technology Research	510	95	0
TOTAL IDAHO NATIONAL ENG. LAB	$11,108	$8,297	$8,156

DEPARTMENT OF ENERGY
FY 1997 CONGRESSIONAL BUDGET REQUEST
B/A IN THOUSANDS OF DOLLARS
SITE FUNDING
(dollars in thousands)

LAWRENCE BERKELEY NATIONAL LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$54,398	$62,866	$62,011
Fusion Energy Sciences	6,066	5,080	5,305
Biological and Environmental Research	46,648	35,177	24,049
Computational and Technology Research	15,248	30,535	50,929
High Energy Physics	23,111	21,393	20,983
Nuclear Physics	25,685	23,760	24,445
University and Science Education	2,969	825	1,050
Multiprogram Energy Laboratories-Facilities Support	6,183	5,824	1,370
TOTAL LAWRENCE BERKELEY NATL. LAB	$180,308	$185,460	$190,142

LAWRENCE LIVERMORE NATIONAL LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$5,709	$5,658	$4,910
Biological and Environmental Research	21,327	21,508	19,285
Fusion Energy Sciences	16,162	9,393	8,659
High Energy Physics	1,445	490	490
Nuclear Physics	812	640	720
University and Science Education	1,548	395	500
Computational and Technology Research	47,738	22,534	1,635
TOTAL LAWRENCE LIVERMORE NATL LAB	$94,741	$60,618	$36,199

LOS ALAMOS NATIONAL LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$11,655	$19,280	$17,272
Fusion Energy Sciences	7,150	4,297	3,715
Biological and Environmental Research	25,305	20,343	20,602
Computational and Technology Research	14,105	12,907	13,763
University and Science Education	1,474	440	500
High Energy Physics	1,005	806	913
Nuclear Physics	39,514	11,747	10,460
TOTAL LOS ALAMOS NATL LAB	$100,208	$69,820	$67,225

DEPARTMENT OF ENERGY
FY 1997 CONGRESSIONAL BUDGET REQUEST
B/A IN THOUSANDS OF DOLLARS
SITE FUNDING
(dollars in thousands)

NATIONAL RENEWABLE ENERGY LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$3,533	$4,237	$3,790
University and Science Education	261	50	50
Computational and Technology Research	1,371	1,150	1,000
TOTAL NATIONAL RENEWABLE ENERGY LAB.	$5,165	$5,437	$4,840

OAK RIDGE NATIONAL LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$83,590	$85,344	$90,502
Advanced Neutron Source	12,832	0	0
Fusion Energy Sciences	27,863	19,477	9,300
Biological and Environmental Research	24,170	21,694	21,436
Computational and Technology Research	22,780	13,840	11,969
University and Science Education	1,420	737	800
High Energy Physics	470	250	406
Nuclear Physics	12,384	13,585	14,385
Energy Research Analysis	644	200	0
Mulitprogram Energy Laboratories-Facilities Support	4,264	3,759	2,635
TOTAL OAK RIDGE NATL. LAB.	$190,417	$158,886	$151,433

PACIFIC NORTHWEST LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$11,759	$11,132	$11,264
Fusion Energy Sciences	2,733	1,592	1,730
Biological and Environmental Research	83,933	92,187	84,456
Computational and Technology Research	8,510	3,465	4,400
High Energy Physics	45	45	52
Energy Research Analysis	465	250	0
University and Science Education	1,411	380	450
Multiprogram Energy Laboratories-Facilities Support	3,870	4,740	5,130
TOTAL PACIFIC NORTHWEST LABORATORY	$112,726	$113,791	$107,482

DEPARTMENT OF ENERGY
FY 1997 CONGRESSIONAL BUDGET REQUEST
B/A IN THOUSANDS OF DOLLARS
SITE FUNDING
(dollars in thousands)

PRINCETON PLASMA PHYSICS LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Fusion Energy Sciences	$118,726	$60,431	$67,810
University and Science Education	381	300	300
Computational and Technology Research	425	0	0
TOTAL PRINCETON PLASMA PHYSICS LAB	$119,532	$60,731	$68,110

SANDIA NATIONAL LABORATORIES

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$20,023	$20,905	$28,021
Biological and Environmental Research	1,335	1,342	1,318
Computational and Technology Research	4,918	4,725	4,269
University and Science Education	1,487	1,275	1,300
Fusion Energy Sciences	8,208	5,723	5,560
TOTAL SANDIA NATL. LAB	$35,971	$33,970	$40,468

SAVANNAH RIVER LABORATORY

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Biological and Environmental Research	$148	$148	$0
Fusion Energy Sciences	378	282	400
University and Science Education	95	5	0
TOTAL SAVANNAH RIVER LABORATORY	$621	$435	$400

DEPARTMENT OF ENERGY
FY 1997 CONGRESSIONAL BUDGET REQUEST
B/A IN THOUSANDS OF DOLLARS
SITE FUNDING
(dollars in thousands)

STANFORD LINEAR ACCELERATOR CENTER

	FY 1995 Approp. w/o PY Spread	FY 1996 Comp. Conf. Action w/o PY Spread	FY 1997 Congressional Request
Basic Energy Sciences	$16,095	$21,459	$20,996
Fusion Energy Sciences	50	50	50
High Energy Physics	162,663	174,070	173,450
Biological and Environmental Research	3,429	2,150	1,407
University and Science Education	183	80	100
Computational and Technology Research	353	0	0
TOTAL STANFORD LINEAR ACCEL. CTR	$182,773	$197,809	$196,003

Department of Energy

FY 1997 Congressional Budget Request

(discretionary budget authority in thousands of dollars)

	FY 1995 Comparable Appropriation	FY 1996 Comparable Appropriation	FY 1997 Request to Congress	FY 1997 vs. FY 1996	
General Science and Research					
High energy physics	632,163	667,000	679,125	12,125	1.8%
Nuclear physics	326,776	304,500	318,425	13,925	4.6%
General science program direction	11,400	10,650	11,600	950	8.9%
Subtotal, General Science and Research	970,339	982,150	1,009,150	27,000	2.7%
Use of prior year balances	-10	—	—	—	—
Total, General Science and Research	**970,329**	**982,150**	**1,009,150**	**27,000**	**2.7%**

DEPARTMENT OF ENERGY
FY 1997 CONGRESSIONAL BUDGET REQUEST
GENERAL SCIENCE AND RESEARCH ACTIVITIES

PROPOSED APPROPRIATION LANGUAGE

For expenses of the Department of Energy activities including the purchase, construction and acquisition of plant and capital equipment and other expenses incidental thereto necessary for general science and research activities in carrying out the purposes of the Department of Energy Organization Act (42 U.S.C. 7101, et seq.), including the acquisition or condemnation of any real property or facility or for plant or facility acquisition, construction, or expansion[; purchase of passenger motor vehicles (not to exceed 12 for replacement purposes only)], [$981,000,000], $1,009,000,000 to remain available until expended. (Energy and Water Development Appropriations Act, 1996.)