DEPARTMENT OF ENERGY
FY 1999 CONGRESSIONAL BUDGET REQUEST
SCIENCE
(Tabulars in thousands, Narrative in whole dollars)

ENERGY RESEARCH PROGRAM DIRECTION

PROGRAM MISSION

This program provides the Federal staffing and associated funding required to provide overall direction of activities carried out under the following programs in the Office of Energy Research (ER): High Energy Physics, Nuclear Physics, Biological and Environmental Research, Basic Energy Sciences, Computational and Technology Research, Multiprogram Energy Laboratories-Facilities Support, Energy Research Analyses. This funding also provides the necessary support to the Director of ER to carry out ER's responsibilities under the Department of Energy (DOE) Organization Act (P.L. 95-91) and as mandated by the Secretary. These responsibilities include providing advice on the status and priorities of the Department's overall research and development programs and on the management of the Department's multipurpose laboratories; developing research and development plans and strategies; and supporting university and science education. This program also provides program-specific staffing resources at the Chicago, Oakland, and Oak Ridge Operations Offices directly involved in executing ER programs.

Program direction has been divided into four categories: salaries and benefits, travel, support services, and other related expenses, the latter including the Working Capital Fund. “Support services” refers to support services contracts that provide necessary support functions to the Federal staff, such as technical support, computer systems development, travel processing, and mailroom activities. “Other related expenses” refers to other administrative costs of maintaining Federal staff, such as building and facility costs and utilities in the field, information technology expenses, and training. The Working Capital Fund includes centrally provided goods and services at Headquarters, such as supplies, rent and utilities.

The GOAL of Energy Research Program Direction is:

To fund the staff and related expenses that are necessary to provide overall management direction of ER's basic and fundamental scientific research programs funded in the Science appropriation; and to enable the Director of ER to serve as the Department's science advisor for formulation and implementation of basic and fundamental research policy.

PROGRAM MISSION - ENERGY RESEARCH PROGRAM DIRECTION (Cont'd)

The OBJECTIVES related to these goals are:

1. To develop, direct and administer a complex and broadly diversified program of mission-oriented basic and applied research and development designed to support the development of new and improved energy, environmental and health technologies.

2. To manage the design, construction and operation of forefront scientific research facilities for use by the Nation's scientific community.

3. To conduct independent technical assessments, peer reviews and evaluations of research proposals, programs and projects.

4. To enhance international collaboration to leverage the U.S. investment in research and development.

5. To review, analyze and, where appropriate, champion the recommendations of Energy Research's Federally chartered advisory committees including the High Energy Physics Advisory Panel, Nuclear Science Advisory Committee, Basic Energy Sciences Advisory Committee, and Health and Environmental Research Advisory Committee.

PERFORMANCE MEASURES:

1. Responsiveness to national science policy and major science initiatives.

2. Improvement in environment, safety and health compliance.

3. Provision of new and enhanced research facilities and equipment within scope and budget and on schedule.

4. Continued improvement in the utilization of staffing, travel and support contractor funds.

5. Continuance of improved levels of facility operating time.

6. Expansion of international collaborative efforts.

SIGNIFICANT ACCOMPLISHMENTS AND PROGRAM SHIFTS:

- Energy Research continues to achieve technical excellence in its programs despite managing one of the largest, most diversified and most complex basic research portfolios in the Federal Government with a relatively small Federal and support contractor staff compared to other programs both within and outside the Department.

- Increased productivity at U.S. scientific research facilities as part of the Scientific Facilities utilization initiative.

- Research operations commenced in FY 1997 at the newly commissioned Advanced Photon Source facility at Argonne National Laboratory. This is an excellent example of a well-planned and managed construction project which was completed on schedule and within its budget.

- Concluded the international agreement for U.S. participation in the Large Hadron Collider project. Signatories included the Secretary of Energy and the Director of the National Science Foundation. Execution of the program has begun.

- Managed the construction of the William R. Wiley Environmental Molecular Sciences Laboratory at Pacific Northwest National Laboratory, structural biology facilities, and the Human Genome Laboratory to completion on time and within budget.

- At Fermilab, complete construction of the C-Zero Experimental Hall within scope and budget, and on schedule (FY 1999 completion); and complete the Main Injector within scope and budget, and on schedule (FY 1999 initial operation).

- Complete the B-factory and its detector at the Stanford Linear Accelerator Center within scope and budget, and on schedule (FY 1999 initial operation).

- Continue construction of the Relativistic Heavy Ion Collider and its detectors at Brookhaven National Laboratory within scope and budget, and on schedule (FY 1999 initial operation).

- Enhance the scientific capabilities for experiments at the Thomas Jefferson National Accelerator Facility (TJNAF) to provide new opportunities for researchers. Three TJNAF experimental halls will be fully operational and the radioactive ion beams enhanced in FY 1998.

- Continue to improve performance of the Radioactive Ion Beam facility at Oak Ridge National Laboratory through the development and use of new beams for carrying out experiments.

PROGRAM MISSION - ENERGY RESEARCH PROGRAM DIRECTION (Cont'd)

- Continue pilots in FY 1998 for transfer of management responsibility from Environmental Management to Energy Research for

newly generated wastes at the Stanford Linear Accelerator Center (SLAC) and Fermilab.

- Manage the Joint Genome Institute and the Atmospheric Radiation Measurement sites using the National Laboratories as an integrated system.

- Strengthen integrated safety management and infrastructure management at the National Laboratories.

- Operate the state-of-the-art National Energy Research Scientific Computing and Energy Science Network for the benefit of ER and DOE.

- Continue to improve environmental, safety and health performance at the Brookhaven National Laboratory through aggressive implementation of the DOE Action Plan for Improved Management of the Laboratory.

ENERGY RESEARCH PROGRAM DIRECTION
PROGRAM FUNDING PROFILE
(Dollars in thousands)

	FY 1997 Current Appropriation	FY 1998 Original Appropriation	FY 1998 Adjustments	FY 1998 Current Appropriation	FY 1999 Budget Request
Activity					
Operating Expenses a/	$0	$37,600	$0	$37,600	$39,860
Adjustment	0	0	0	0	0
TOTAL, Energy Research Program Direction	$0	$37,600	$0	$37,600	$39,860
Staffing (FTEs)					
Headquarters FTEs	0	256		256	252
Field FTEs	0	36		36	36
TOTAL, FTEs	0	292	0	292	288

a/ The operating expenses include Working Capital Fund charges, which are estimated to be $2,679,000 in FY 1998 and $2,870,000 in FY 1999.

Public Law Authorization:

Pub. Law 95-91, DOE Organization Act

ENERGY RESEARCH PROGRAM DIRECTION
(Tabular dollars in thousands, narrative in whole dollars)

I. Mission Supporting Goals and Objectives

Program Direction provides the Federal staffing resources and associated costs required to provide overall direction and execution of Office of Energy Research program and advisory responsibilities. Energy Research Program Direction supports staff in the High Energy Physics, Nuclear Physics, Basic Energy Sciences, Biological and Environmental Research, Computational and Technology Research, Multiprogram Energy Laboratories-Facilities Support, and Energy Research Analyses programs, including management and technical support staff. This program also supports staff at the Chicago, Oakland, and Oak Ridge Operations Offices directly involved in program execution. The staff includes scientific and technical personnel as well as program support personnel in the areas of budget and finance, general administration, grants and contracts, information resource management, policy review and coordination, infrastructure management, construction management, and environment, safety and health.

The FY 1999 request includes Working Capital Fund resources of $2,870,000 to cover the costs of centrally provided goods and services at Headquarters, such as supplies, rent, and utilities.

II. Funding Table:

	FY 1997 Current Appropriation	FY 1998 Original Appropriation	FY 1998 Adjustments	FY 1998 Current Appropriation	FY 1999 Budget Request
Chicago					
Salary and Benefits		$1,949		$1,949	$2,104
Travel		93		93	30
Support Services		5		5	187
Other Related Expenses		84		84	104
Total		$2,131		$2,131	$2,425
Full-Time Equivalents		21		21	21

II. Funding Table (cont'd):

	FY 1997 Current Appropriation	FY 1998 Original Appropriation	FY 1998 Adjustments	FY 1998 Current Appropriation	FY 1999 Budget Request
Oakland					
Salary and Benefits		$695		$695	$756
Travel		20		20	12
Support Services		0		0	10
Other Related Expenses		35		35	45
Total		$750		$750	$823
Full-Time Equivalents		8		8	8
Oak Ridge					
Salary and Benefits		$633		$633	$623
Travel		35		35	35
Support Services		0		0	0
Other Related Expenses		32		32	84
Total		$700		$700	$742
Full-Time Equivalents		7		7	7
Headquarters					
Salary and Benefits		$23,343		$23,343	$24,544
Travel		1,015		1,015	1,040
Support Services		4,690		4,690	5,103
Other Related Expenses		4,971		4,971	5,183
Total		$34,019		$34,019	$35,870
Full Time Equivalents		256		256	252

II. Funding Table (cont'd):

	FY 1997 Current Appropriation	FY 1998 Original Appropriation	FY 1998 Adjustments	FY 1998 Current Appropriation	FY 1999 Budget Request
Total Energy Research					
Salary and Benefits		$26,620		$26,620	$28,027
Travel		1,163		1,163	1,117
Support Services		4,695		4,695	5,300
Other Related Expenses		5,122		5,122	5,416
Grand Total		$37,600		$37,600	$39,860
Full-Time Equivalents		292		292	288

III. Performance Summary:

Salaries and Benefits:	FY 1997	FY 1998	FY 1999
Staff funded in this decision unit monitor and evaluate over 3,200 grants and contracts at more than 225 institutions, including universities, industry and other government agencies, in addition to monitoring and evaluating the programs at 13 National Laboratories. ER also manages the Department-wide Small Business Innovation Research and Small Business Technology Transfer programs. Our reengineering efforts have eliminated unnecessary and non-value added work from the system where possible. Elimination of Office of Energy Research support for the Federally staffed Environmental Measurements Laboratory resulted from a review of program priorities that leads to a major savings in salaries and benefits in FY 1998 at the Chicago Operations Office. Further reductions in staff or program direction funding below the FY 1999 request would prevent us from covering the broad spectrum of scientific disciplines which comprise Energy Research programs, which would eventually compromise their scientific		$26,620	$28,027

III. Performance Summary (Cont'd):	FY 1997	FY 1998	FY 1999
productivity and our ability to respond to the needs of the researchers throughout the country who are funded by these programs and utilize their research facilities.			
Travel: The FY 1999 estimate reflects a lower amount of actual travel since anticipated escalation of costs for airfare, lodging, etc., will be absorbed. Further reductions in travel could seriously impact ER's ability to achieve its missions. Alternatives to travel such as teleconferencing will be utilized when possible.		1,163	1,117
Support Services: Provide necessary mailroom, travel processing, environment, health and safety support, computer systems development, and hardware and software installation, configuration, and maintenance activities. Emphasis in FY 1998 and FY 1999 will be placed on implementation of an information architecture for Energy Research to establish integrated business management systems, consistent with the provisions of the Information Technology Management Reform Act of 1996. This is essential to take work out of the system and to meet workload demands. ER is widely acknowledged as being the most efficient and conservative user of support services contracts in the Department.		4,695	5,300
Other Related Expenses: Acquire computer hardware and software in FY 1998 and FY 1999 necessary to accomplish corporate systems development and networking upgrades. The FY 1998 and FY 1999 estimates include $2,679,000 and $2,870,000, respectively, to cover Headquarters Working Capital Fund charges.		5,122	5,416
Total		$37,600	$39,860

EXPLANATION OF FUNDING CHANGES FROM FY 1998 TO FY 1999:

Increase of $1,407,000 in salaries and benefits is due to the impact of general pay increases, promotions and within grade increases, which is partially offset by the decrease of four FTEs.	$+1,407,000
Decrease of $46,000 in travel due to increased use of alternatives to travel.	$-46,000
Increase of $605,000 in support services results from the inclusion in program direction of support service contracts previously included in program budgets as directed by Congress.	$+605,000
Increase of $79,000 due to costs of computer workstations and network infrastructure technology upgrades needed to improve operational efficiencies and for the inclusion of field office printing costs. Increase of $191 for the Working Capital Fund due to general rise in price levels.	$+294,000
Total	$+2,260,000

Support Services	FY 1997 ($000)	FY 1998 ($000)	FY 1999 ($000)	FY 1999/ FY 1998 Change ($000)
Technical Support Service				
Feasibility of Design Considerations				
Economic and Environmental Analysis		1,488	1,488	0
Test and Evaluation Studies			160	+160
Subtotal		1,488	1,648	+160
Management Support Services				
Management Studies		207	207	0
Training and Education		58	58	0
ADP Support		2,282	2,627	+345
Administrative Support Services		660	760	+100
Subtotal		3,207	3,652	+445
Total Support Services		4,695	5,300	+605
Use of Prior Year Balances				

Other Related Expenses	FY 1997 ($000)	FY 1998 ($000)	FY 1999 ($000)	FY 1999/ FY 1998 Change ($000)
Training		60	60	0
Working Capital Fund		2,679	2,870	+191
Printing and Reproduction			24	+24
Rental Space				
Software Procurement/Maintenance Activities/Capital Acquisitions		2,383	2,462	+79
Other				
Total Obligational Authority		5,122	5,416	+294
Use of Prior-Year Balances				
Total Budget Authority		5,122	5,416	+294

DEPARTMENT OF ENERGY
FY 1999 CONGRESSIONAL BUDGET REQUEST
ENERGY RESEARCH
GENERAL SCIENCE AND RESEARCH
(Tabular dollars in thousands, Narrative in whole dollars)

GENERAL SCIENCE PROGRAM DIRECTION

PROGRAM MISSION

General Sciences Program Direction was transferred to the Science Program Direction decision unit in FY 1998 at the direction of Congress. The program provided the Federal staffing resources and associated funding to plan, direct, and manage a viable, high quality national program of basic research in the fields of high energy physics and nuclear physics in support of the Nation's goals to support basic scientific research. It supported the staff in the Office of the Associate Director for High Energy and Nuclear Physics, the High Energy Physics Division, the Nuclear Physics Division, and associated program and management support staff in the Office of Energy Research. This program also provided program-specific staffing resources at the Chicago, Oakland, and Oak Ridge Operations Offices to support high energy and nuclear physics activities carried out by those offices.

Program direction has been divided into four categories: salaries and benefits, travel, support services, and other related expenses. Support services refers to program direction funded support service contracts that provided necessary support functions to the Federal staff, such as computer systems development, travel processing, technical support, and mailroom. Other related expenses includes other administrative costs of maintaining Federal staff, such as building and facility costs including utilities at field locations, training, information technology expenses, and Working Capital Fund charges for goods and services provided centrally by the Department at Headquarters.

GENERAL SCIENCE-PROGRAM DIRECTION
PROGRAM FUNDING PROFILE
(Dollars in thousands)

	FY 1997 Current Appropriation		FY 1998 Original Appropriation	FY 1998 Adjustments	FY 1998 Current Appropriation
Activity					
Operating Expenses.....	$10,000	a/			
TOTAL, General Science Program Direction.....	$10,000				
Staffing (FTEs)					
Headquarters FTEs.....	51				
Field FTEs.....	32				
Total, FTEs.....	83				

a/ The Operating Expenses included $1,000,000 Working Capital Fund contributions in FY 1997.

Public Law Authorization:
Pub. Law 95-91, DOE Organization Act (1977)

GENERAL SCIENCE PROGRAM DIRECTION

I. Mission Supporting Goals/Ongoing Responsibilities:

This program was transferred to the new Science Program Direction decision unit in FY 1998 at the direction of Congress.

The program included $1,000,000 Working Capital Fund charges to cover the costs of centrally provided goods and services such as supplies, housing, utilities, etc., which previously were budgeted in Departmental Administration.

II. Funding Schedule:

	FY 1997 Current Appropriation	FY 1998 Original Appropriation	FY 1998 Adjustments	FY 1998 Current Appropriation	FY 1999 Budget Request
Chicago					
Salary and Benefits	$1,595				
Travel	23				
Support Services	35				
Other Related Expenses	37				
Total	$1,690				
Full Time Equivalents	17				
Oakland					
Salary and Benefits	$616				
Travel	9				
Support Services	10				
Other Related Expenses		17			
Total	$ 652				
Full Time Equivalents	6				

II. Funding Schedule (cont'd):

	FY 1997 Current Appropriation	FY 1998 Original Appropriation	FY 1998 Adjustments	FY 1998 Current Appropriation	FY 1999 Budget Request
Oak Ridge					
Salary and Benefits	$ 677				
Travel	37				
Support Services	0				
Other Related Expenses	46				
Total	$760				
Full Time Equivalents	9				
Headquarters					
Salary and Benefits	$ 4,690				
Travel	290				
Support Services	464				
Other Related Expenses a/	1,454				
Total	$ 6,898				
Full Time Equivalents	51				
Total Energy Research					
Salary and Benefits	$ 7,578				
Travel	359				
Support Services	509				
Other Related Expenses	1,554				
Total	$ 10,000				
Full Time Equivalents	83				

a/ Includes Working Capital Fund.

III. Performance Summary

	FY 1997	FY 1998	FY 1999
Salaries and Benefits: Funded staff managing and supporting the national high energy physics and nuclear physics program with reduced staffing levels as a result of streamlining efforts.	$7,578	$0	$0
Travel: Provided on-site contractor and facility oversight and participated in major scientific conferences to maintain state-of-the-art scientific expertise.	$359	$0	$0
Support Services: Provided necessary mailroom, travel processing, environment, health, and safety, computer systems and administrative support for the High Energy and Nuclear Physics programs.	$509	$0	$0
Other Related Expenses: Provided hardware and software for information technology improvements and other miscellaneous costs of supporting the program as well as $1,000,000 for Headquarters Working Capital Fund.	$1,554	$0	$0
Total	$10,000	$0	$0

IV. Explanation of Funding Changes from FY 1997 and FY 1998:

This program was transferred to the new Science Program Direction decision unit in FY 1998 at the direction of Congress.

Support Services	FY 1997 ($000)	FY 1998 ($000)	FY 1999 ($000)	FY 1999/FY 1998 Change ($000)
Technical Support Service				
Feasibility of Design Considerations				
Economic and Environmental Analysis	175			
Test and Evaluation Studies				
Subtotal	175			
Management Support Services				
Management Studies				
Training and Education	30			
ADP Support	224			
Administrative Support Services	80			
Subtotal	334			
Total Support Services	509			
Use of Prior Year Balances				

Other Related Expenses	FY 1997 ($000)	FY 1998 ($000)	FY 1999 ($000)	FY 1999/ FY 1998 Change ($000)
Training				
Working Capital Fund	1,000			
Printing and Reproduction				
Rental Space				
Software Procurement/Maintenance Activities/Capital Acquisitions	554			
Other				
Total Obligational Authority	$1,554			
Use of Prior-Year Balances				
Total Budget Authority	$1,554			