

ENERGY RESEARCH

Biological and environmental research

The conferees support the important work conducted at the Inhalation Toxicology Research Institute. The conferees further understand that the Institute is reviewing ways to reduce its operating costs to the Department of Energy and to increase access to its facilities by other Federal and non-Federal entities having research needs. The conferees support these efforts to reduce costs and to meet both Federal and non-Federal needs and requirements.

Any general reductions to this account should be allocated equitably across all program elements without terminating any programs unilaterally.

Fusion

The conferees have provided \$244,144,000, an increase of \$15,000,000 over the House recommendation, for the fusion energy program. This funding is to support a program in plasma science and fusion technology, and continue United States participation in the engineering design activities phase of the International Thermonuclear Experimental Reactor project to which the United States is committed through fiscal year 1998. The conferees do not agree with the Senate language which recommended transferring computer work, termination, severance and separation costs to other activities within the Department, and transferring the heavy ion fusion program to defense activities.

With little prospect for increased funding for the fusion base program over the next several years, it will be necessary for the program to restructure its strategy, content and near-to-medium-term objectives. The restructured program should emphasize continued development of fusion science, increased attention to concept improvement and alternative approaches to fusion, and development and testing of the low-activation structural materials so important for fusion's attractiveness as an energy source.

The Department of Energy, with participation of the fusion community and the Fusion Energy Advisory Committee, is instructed to prepare a strategic plan to implement such a restructured program, to be completed by December 31, 1995. This plan should assume a constant level of effort in the base program for the next several years; as appropriate, it should be integrated with plans of the international fusion program; and it should address the institutional makeup of a domestic program consistent with the funding assumptions.

The conferees believe that, because of the stringent budget realities facing this Nation, the promise of fusion energy can only be realized through international collaboration. The high cost of fusion development points to the increasing importance of international cooperation as a means of designing, building, and financing major magnetic fusion facilities in the future. Because the United States has committed to such an approach, it is crucial that a restructuring of the fusion program maintain a strong domestic base and not undermine our credibility as a reliable international partner.

Basic energy sciences

The conferees make no recommendation with regard to the siting of the new spallation source project. The Department of Energy shall make that determination in a fair and unbiased manner. The conferees direct the Department of Energy to evaluate opportunities to upgrade existing reactors and spallation sources as cost-effective means of providing neutrons in the near term for the scientific community while the next generation source is developed. This evaluation shall be available prior to the Appropriations Committee's hearings on the Department's fiscal year 1997 budget submission.

For purposes of reprogrammings during fiscal year 1996, funding may be reallocated by the Department among all operating accounts in basic energy sciences other than program direction.

Other energy research activities

The conferees agree that to the extent nonprogram specific general plant projects and general plant equipment are required for the Oak Ridge National Laboratory and the Oak Ridge Institute for Science and Education, they are to be funded within the Basic Energy Science and Biological and Environmental Research programs, respectively.

The conference agreement provides \$18,000,000 for the laboratory technology transfer program. Within this funding, up to \$1,500,000 is available for severance costs for 17 current employees. The conferees recommend that the Department identify and complete the most promising cooperative research and development agreements during fiscal year 1996.

ENERGY SUPPORT ACTIVITIES

University science and education programs

The conferees have provided \$20,000,000 for this portion of the Department's science and education activities. None of the funds in this account may be used for salaries and expenses other than up to \$1,100,000 which is available for severance costs for the 27 employees currently managing this program.

In addition to this individual program, the Department of Energy spends well over \$100,000,000 throughout all programs to support science and education activities. The conferees continue to support science and education activities funded directly by programs and which have a direct correlation to programmatic needs. The conferees do not agree to fund a separate bureaucracy set up to manage only a small portion of the science and education activities of the Department. In fiscal year 1996, these activities are to be managed by the Office of Energy Research as they were from 1977 to 1993. In that way, this science and education program will be closely coupled with the Department's research programs, and the number of employees needed to support the program will be significantly reduced.

The conference agreement does not contain specific funding directions for science and education activities, but urges the Department to consider the views expressed in the Senate report. The conferees also encourage the Secretary of Energy to enter into an

agreement with a qualified minority women's model institution of excellence to support curriculum development, research, training and other activities related to energy research and environmental restoration and waste management.

ENVIRONMENTAL RESTORATION AND WASTE MANAGEMENT

(NON-DEFENSE)

The conferees agree with the House report language on the Wayne, New Jersey project.

INDIAN ENERGY RESOURCES

From within available funds for the Energy Supply, Research and Development appropriation account, \$8,600,000 is provided for Indian energy resources. The funding should be allocated to provide \$6,100,000 for continued preconstruction activities for the Navajo transmission project, and \$2,000,000 for the Haida Alaska Native Village Corporation's Reynolds Creek hydroelectric project. The conference agreement includes \$500,000 for the Crow Energy Project, instead of \$2,000,000 as proposed by the Senate. The Department is encouraged to work through the Western Area Technology Center in Butte, Montana, to provide any and all assistance in making the Crow energy project a success.

Amendment No. 23: Deletes language proposed by the Senate providing that within available funds \$56,000,000 may be available to continue operation of the Tokamak Fusion Test Reactor.

Amendment No. 24: Deletes language proposed by the Senate providing that within the amount for Indian Energy Resource projects, \$2,000,000 may be made available to fund the Crow energy resources programs.

Amendment No. 25: Deletes language proposed by the House providing \$44,772,000 to implement provisions of section 1211 of the Energy Policy Act of 1992.

Amendment No. 26: Deletes language proposed by the Senate allocating additional funds for renewable energy resources and reducing departmental administration funding.

URANIUM SUPPLY AND ENRICHMENT ACTIVITIES

The conference agreement adjusts the allocation of funding for implementation of the depleted uranium hexafluoride cylinders and maintenance program. These adjustments will accelerate cleaning and painting of corroded cylinders at the three gaseous diffusion plant sites and construction of a new cylinder storage yard. These activities have been accommodated by reallocating funding provided in the House and Senate recommendations.

GENERAL SCIENCE AND RESEARCH ACTIVITIES

Amendment No. 27: Appropriates \$981,000,000 for General Science and Research Activities instead of \$991,000,000 as proposed by the House and \$971,000,000 as proposed by the Senate.

Department of Energy (in thousands)

	Budget Estimate	Conference
ENERGY RESEARCH		
Biological and environmental research		
Biological and environmental research R&D.....	354,548	349,891
Construction		
GP-E-120 General plant projects.....	4,450	---
94-E-337 Advanced light source structural biology support facility, LBL.....	2,600	2,600
94-E-338 Structural biology center, ANL.....	4,295	4,295
94-E-339 Human genome lab, LBL.....	5,700	5,700
91-EM-100 Environmental & molecular sciences Laboratory, PNL, Richland, WA.....	50,000	50,000
Subtotal, Construction.....	57,045	62,595
Subtotal, Biological & environ. research R&D....	421,591	412,486
BER program direction.....	7,060	7,000
Total, Biological and environmental research.....	428,651	419,486
Fusion energy	309,187	244,144
Construction		
GPE-900 General plant projects, var. locations....	1,000	---
96-E-310 Elise project.....	3,200	---
94-E-200 Tokamak physics experiment, Princeton plasma physics laboratory.....	49,900	---
Subtotal, Construction.....	54,100	---
Total, Fusion energy.....	363,287	244,144
Basic energy sciences		
Materials sciences.....	345,606	387,400
Chemical sciences.....	180,181	198,400
Applied mathematical sciences.....	107,682	118,500
Engineering and geosciences.....	39,648	41,700
Advanced energy projects.....	11,915	12,300
Energy biosciences.....	29,307	30,200
Program direction.....	8,485	9,500
Capital equipment.....	56,973	---
Construction		
GPE-400 General plant projects.....	6,314	---
96-E-305 Accelerator and reactor improvements and modifications, various locations.....	12,683	10,475
88-R-402 6-7 GeV syn. radiation source, ANL.....	3,185	3,185
96-E-300 Combustion research facility, Phase II, SNL/L.....	2,000	2,000
Subtotal, Construction.....	24,383	15,661
Total, Basic energy sciences.....	805,340	791,661
Other energy research		
Energy research analyses.....	3,463	3,463
Laboratory technology transfer.....	58,776	18,000
Advisory and oversight.....	8,720	6,200
Policy and management.....	2,180	2,200

Department of Energy (in thousands)

	Budget Estimate	Conference
Multiprogram energy labs - facility support		
Multiprogram general purpose facilities.....	6,382	---
Construction		
GPE-801 General plant projects.....	8,740	---
95-E-301 Central heating plant rehabilitation, Phase I (ANL).....	2,500	2,500
95-E-302 Applied science center, phase I (BNL)	3,270	3,270
95-E-303 Electrical safety rehab (PNL).....	1,500	1,500
95-E-310 Multiprogram laboratory rehabilitation, phase I (PNL).....	2,740	2,740
94-E-351 Fuel storage and transfer facility upgrade (BNL).....	440	440
94-E-363 Roofing improvements (ORNL).....	2,038	2,038
Subtotal, Construction.....	21,228	12,488
Subtotal, Multiprogram gen. purpose facilities	27,610	12,488
Environment, safety and health.....	8,657	6,656
Construction		
96-E-330 Building electrical service upgrade Phase I, Argonne National Laboratory Argonne, Illinois.....	1,200	---
96-E-331 Sanitary sewer restoration, Phase I, Lawrence Berkeley Laboratory, Berkeley, CA....	2,400	---
96-E-332 Building 801, renovations Brookhaven National Laboratory, Upton, New York.....	800	---
96-E-333 Multiprogram energy laboratories upgrades, various locations.....	---	4,400
95-E-307 Fire Safety Imp. III (ANL).....	1,000	1,000
95-E-308 Sanitary system mods. II (BNL).....	1,540	1,540
95-E-309 Loss prevention upgrades (BNL).....	2,480	2,480
93-E-320 Fire and safety improvements, phase II (ANL).....	2,411	2,411
93-E-323 Fire and safety systems upgrade phase I (LBL).....	1,130	1,130
93-E-324 Hazardous materials safeguards, phase I (LBL).....	1,288	1,288
Subtotal, Construction.....	14,249	14,249
Subtotal, Environment, safety and health.....	22,906	20,905
Inactive and surplus facilities.....	500	---
Subtotal, Multiprogram energy labs - fac. suppor	51,016	33,393
Total, Other energy research.....	124,155	63,256
TOTAL, ENERGY RESEARCH.....	1,721,433	1,518,547

Department of Energy (in thousands)

	Budget Estimate	Conference
ENERGY SUPPORT ACTIVITIES		
University and science education programs		
Laboratory cooperative science centers.....	29,576	13,000
University programs.....	17,377	7,000
University research instrumentation.....	5,647	---
Program direction.....	2,369	---
Total, University and science education programs..	54,969	20,000
Technical information management program.....	14,220	11,000
Construction.....	1,600	1,000
Total, Technical information management program...	15,720	12,000
Technology partnership.....	3,139	---
In-house energy management.....	15,864	---
Construction		
IME - 500 Modifications for energy mgmt.....	13,125	---
Total, In-house energy management.....	28,789	---
TOTAL, ENERGY SUPPORT ACTIVITIES.....	102,607	32,000
ENVIRONMENTAL RESTORATION & WASTE MGMT. (NON-DEFENSE)		
Corrective activities.....	1,065	---
Construction		
92-E-801 Melton Valley liquid low level waste collection and transfer system upgrade, ORNL.....	339	339
88-R-830 Liquid low level waste collection and transfer system upgrade, ORNL.....	4,000	4,000
Subtotal, Construction.....	4,339	4,339
Total, Corrective activities.....	5,404	4,339
Environmental restoration.....	411,532	366,400
Waste management.....	194,907	171,896
Construction		
GP-E-800 General plant projects.....	2,212	---
94-E-802 Bethel Valley federal facility agreement upgrades, ORNL.....	300	300
93-E-900 Long-term storage of TMI-2 fuel, INEL....	4,048	4,048
91-E-800 Rehabilitation of waste management building 308, ANL.....	787	787
88-R-812 Hazardous waste handling facility, LBL...	671	671
Subtotal, Construction.....	8,018	5,806
Total, Waste management.....	202,925	177,702
Nuclear materials and facilities stabilization.....	82,395	73,100
TOTAL, ENVIRONMENTAL RESTORATION AND WASTE MGMT...	702,256	621,541
Subtotal, Energy supply, research and development.	3,494,821	2,806,707

Department of Energy (in thousands)

	Budget Estimate	Conference
Use of prior year balances.....	-79,300	-79,300
General reduction, ESR&D.....	-10,000	---
Galvin task force reductions.....	-80,000	---
TOTAL, ENERGY SUPPLY, RESEARCH AND DEVELOPMENT....	3,355,521	2,727,407
URANIUM SUPPLY AND ENRICHMENT ACTIVITIES		
Uranium program activities.....	91,944	83,500
Construction		
96-U-200 UF6 cylinders refurbishment facility, Paducah, Kentucky gaseous diffusion plants.....	5,800	---
96-U-201 depleted UF6 cylinder storage yards, Paducah, Kentucky gaseous diffusion plant.....	---	3,000
93-U-200 UF6 cylinders and storage yards, Paducah, KY and Portsmouth, OH gaseous diffusion plants....	3,400	3,400
Subtotal, Construction.....	9,200	6,400
Subtotal, Uranium supply & enrichment activities..	101,144	89,900
Revenues - Sales.....	-34,903	-34,903
Use of prior year balances.....	-28,703	-28,703
TOTAL, URANIUM SUPPLY AND ENRICHMENT ACTIVITIES.....	40,538	29,284
URANIUM ENRICHMENT DECONTAMINATION AND DECOMMISSIONING FUND		
Decontamination and Decommissioning Fund.....	289,807	278,807
GENERAL SCIENCE AND RESEARCH		
High energy physics		
Physics research.....	146,080	141,000
Facility operations.....	337,352	353,077
Construction		
GP-E-103 General plant projects, various locations.....	13,845	---
96-G-301 Accelerator improvement projects, various locations.....	9,800	---
94-G-304 B-Factor, SLAC.....	52,000	52,000
92-G-302 Fermilab main injector, Fermilab.....	52,000	52,000
Subtotal, Construction.....	127,645	104,000
Subtotal, Facility operations.....	454,997	457,077
High energy technology.....	66,884	68,923
Other capital equipment.....	3,925	---
Total, High energy physics.....	681,836	667,000
Nuclear physics.....	237,773	236,925
Construction		
GP-E-300 General plant projects, various locations.....	4,785	---

Department of Energy (in thousands)

	Budget Estimate	Conference
96-G-302 Accelerator improvements and modifications, various locations.....	4,975	2,575
91-G-300 Relativistic heavy ion collider, BNL.....	70,000	68,000
Subtotal, Construction.....	79,760	67,575
Other capital equipment.....	2,000	---
Total, Nuclear physics.....	318,533	304,500
General science program direction.....	10,330	9,500
TOTAL, GENERAL SCIENCE AND RESEARCH.....	1,011,699	981,000
ATOMIC ENERGY DEFENSE ACTIVITIES		
WEAPONS ACTIVITIES		
Stockpile stewardship		
Core stockpile stewardship.....	984,208	1,078,403
Construction		
GPD-101 General plant projects, various locations.....	12,500	---
96-D-102 Stockpile stewardship facilities revitalization, Phase VI, various locations.....	2,520	2,520
96-D-103 ATLAS, Los Alamos National Laboratory	8,400	8,400
96-D-104 Process and environmental technology Laboratory, BNL.....	1,800	1,800
96-D-105 Contained firing facility addition, LLNL.....	5,600	5,600
95-D-102 Chemistry and metallurgy research (CMR) upgrades project, LLNL.....	9,940	9,940
94-D-102 Nuclear Weapons Research, development and testing facilities revitalization, Phase V, various locations.....	12,200	12,200
93-D-102 Nevada support facility, NV.....	15,650	15,650
90-D-102 Nuclear Weapons Research, Development and testing facilities revitalization, Phase III, various locations.....	6,200	6,200
88-D-106 Nuclear weapons research, development and testing facilities revitalization, Phase II, various locations.....	17,985	17,895
Subtotal, Construction.....	93,805	81,305
Subtotal, Core stockpile stewardship.....	1,088,013	1,159,708
Inertial fusion.....	203,267	203,267
Construction		
96-D-111 National ignition facility, TBD.....	37,400	37,400
Subtotal, Inertial fusion.....	240,667	240,667
Technology transfer/education		
Technology transfer.....	229,405	150,000
Education.....	20,000	10,000
Subtotal, Technology transfer/education.....	249,405	160,000
Marshall Island/Dose reconstruction.....	6,800	6,800
Total, Stockpile stewardship.....	1,584,885	1,567,175