

Congressional Budget Request

Energy Supply Research and Development
Nuclear Waste Fund

Volume 2

FY 1988



U.S. Department of Energy
Assistant Secretary,
Management and Administration
Office of the Controller

January 1987

DEPARTMENT OF ENERGY
FISCAL YEAR 1988 CONGRESSIONAL BUDGET REQUEST

SUMMARY OF ESTIMATES BY APPROPRIATIONS

BUDGET AUTHORITY IN THOUSANDS OF DOLLARS

| | FY 1986 <u>Actual</u> <u>BA</u> | FY 1987 <u>Estimate</u> <u>BA</u> | FY 1988 <u>Request</u> <u>BA</u> |
|--|---------------------------------------|---|--|
| Appropriations Before The Energy and Water Development Subcommittees: | | | |
| Energy Supply Research and Development | \$ 1,701,351 | \$ 1,254,131 | \$ 1,914,710 |
| Uranium Enrichment | 1,549,015 | 1,210,400 | 1,070,000 |
| General Science and Research | 659,059 | 719,517 | 814,498 |
| Atomic Energy Defense Activities .. | 7,292,405 | 7,481,852 | 8,050,000 |
| Departmental Administration | 235,676 | 139,509 | 166,133 |
| Alaska Power Administration | 3,245 | 2,881 | 3,026 |
| Bonneville Power Administration ... | 404,329 | 327,659 | 205,800 |
| Southeastern Power Administration . | --- | 19,647 | 27,400 |
| Southeastern - Continuing Fund | 4,028 | --- | --- |
| Southwestern Power Administration . | 29,180 | 25,337 | 16,648 |
| Western Area Power Administration . | 195,842 | 240,309 | 295,515 |
| Western Area Power Emergency Fund . | 147 | 225 | --- |
| Federal Energy Regulatory Commission | 45,107 | -3,465 | -900 |
| Nuclear Waste Fund | 499,037 | 499,000 | 500,000 |
| Geothermal Resources Development Fund | <u>69</u> | <u>72</u> | <u>72</u> |
| Subtotal, Appropriations Before the Energy and Water Development Subcommittees | <u>\$12,618,490</u> | <u>\$11,917,074</u> | <u>\$13,062,902</u> |

DEPARTMENT OF ENERGY
 FISCAL YEAR 1988 CONGRESSIONAL BUDGET REQUEST
 SUMMARY OF ESTIMATES BY APPROPRIATIONS
 BUDGET AUTHORITY IN THOUSANDS OF DOLLAR

| | <u>FY 1986 Actual BA</u> | <u>FY 1987 Estimate BA</u> | <u>FY 1988 Request BA</u> |
|---|----------------------------------|------------------------------------|-----------------------------------|
| Appropriations Before Interior and Related Agencies Subcommittees: | | | |
| Alternative Fuels Production | \$ 2,775 | \$ --- | \$ --- |
| Clean Coal Technology | --- | --- | 50,000 |
| Fossil Energy Research and Development | 309,389 | 251,402 | 168,900 |
| Naval Petroleum and Oil Shale Reserves | 13,002 | 122,177 | 159,700 |
| Energy Conservation | 426,187 | 149,679 | 86,090 |
| Energy Regulation | 23,423 | 23,400 | 21,680 |
| Emergency Preparedness | 5,750 | 6,044 | 6,206 |
| Strategic Petroleum Reserve | 107,533 | 147,433 | 270,181 |
| Energy Information Activities | <u>57,724</u> | <u>60,301</u> | <u>61,599</u> |
| Subtotal, Interior and Related Agencies Subcommittees | 945,783 | 760,436 | 824,356 |
| Subtotal, Energy and Water Development Subcommittees | <u>12,618,490</u> | <u>11,917,074</u> | <u>13,062,902</u> |
| Subtotal, Department of Energy | 13,564,273 | 12,677,510 | 13,887,258 |
| Permanent - Indefinite Appropriations: | | | |
| Payments to States | <u>629</u> | <u>705</u> | <u>727</u> |
| Total, Department of Energy | <u>\$13,564,902</u> | <u>\$12,678,215</u> | <u>\$13,887,985</u> |

DEPARTMENT OF ENERGY
 FY 1988 CONGRESSIONAL STAFFING REQUEST
 TOTAL WORK FORCE

| | FY1986 FTE USAGE | FY1987 -FY86 | FY1987 CONGR REQ | FY1988 -FY87 | FY1988 CONGR REQ |
|-----------------------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| ENERGY & WATER SUBCOMMITTEE | | | | | |
| HEADQUARTERS | 4,663 | 170 | 4,833 | 47 | 4,880 |
| FIELD | 9,393 | 62 | 9,455 | -4 | 9,451 |
| SUBCOMMITTEE TOTAL | 14,056 | 232 | 14,288 | 43 | 14,331 |
| INTERIOR SUBCOMMITTEE | | | | | |
| HEADQUARTERS | 1,254 | -13 | 1,241 | -104 | 1,137 |
| FIELD | 883 | 5 | 888 | -143 | 745 |
| SUBCOMMITTEE TOTAL | 2,137 | -8 | 2,129 | -247 | 1,882 |
| GRAND TOTAL | 16,193 | 224 | 16,417 | -204 | 16,213 |
| ADJUSTMENT | | -317 | -317 | 54 | -263 |
| ADJUSTED TOTAL | 16,193 | -93 | 16,100 | -150 | 15,950 |

DEPARTMENT OF ENERGY
FY 1988 CONGRESSIONAL STAFFING REQUEST
TOTAL WORK FORCE

| | FY1986 FTE USAGE | FY1987 -FY86 | FY1987 CONGR REQ | FY1988 -FY87 | FY1988 CONGR REQ |
|-------------------------------------|------------------------|-----------------|------------------------|-----------------|------------------------|
| 10 ENERGY SUPPLY RESEARCH AND DEV | 918 | 0 | 926 | 0 | 926 |
| HEADQUARTERS | 635 | 4 | 639 | 0 | 639 |
| FIELD | 283 | 4 | 287 | 0 | 287 |
| 15 OIL AND GAS ENRICHMENT | 65 | 2 | 67 | 0 | 67 |
| HEADQUARTERS | 54 | 2 | 56 | 0 | 56 |
| FIELD | 11 | 0 | 11 | 0 | 11 |
| 20 GENERAL SCIENCE AND RESEARCH | 38 | 1 | 39 | 0 | 39 |
| HEADQUARTERS | 38 | 1 | 39 | 0 | 39 |
| 25 ATOMIC ENERGY DEFENSE ACTIVITIES | 2,718 | 142 | 2,860 | 30 | 2,890 |
| HEADQUARTERS | 491 | 52 | 543 | 19 | 562 |
| FIELD | 2,227 | 90 | 2,317 | 11 | 2,328 |
| 30 DEPARTMENTAL ADMINISTRATION | 3,273 | 77 | 3,350 | 20 | 3,370 |
| HEADQUARTERS | 1,493 | 46 | 1,539 | 5 | 1,544 |
| FIELD | 1,500 | 31 | 1,611 | 15 | 1,626 |
| 34 ALASKA POWER ADMINISTRATION | 36 | 2 | 38 | -3 | 35 |
| FIELD | 36 | 2 | 38 | -3 | 35 |
| 36 DONNEVILLE POWER ADMIN | 3,491 | -41 | 3,430 | -50 | 3,380 |
| FIELD | 3,491 | -41 | 3,430 | -50 | 3,380 |
| 38 SOUTHEASTERN POWER ADMIN | 38 | 2 | 40 | 0 | 40 |
| FIELD | 38 | 2 | 40 | 0 | 40 |
| 42 SOUTHWESTERN POWER ADMIN | 193 | -7 | 186 | 0 | 186 |
| FIELD | 193 | -7 | 186 | 0 | 186 |
| 46 WAPA - POWER MARKETING | 1,176 | -14 | 1,160 | 0 | 1,160 |
| FIELD | 1,176 | -14 | 1,160 | 0 | 1,160 |
| 50 WAPA - COLORADO RIVER BASIN | 219 | 0 | 219 | 0 | 219 |
| FIELD | 219 | 0 | 219 | 0 | 219 |
| 52 FEDERAL ENERGY REGULATORY COMM | 1,897 | 62 | 1,959 | 0 | 1,959 |
| HEADQUARTERS | 1,897 | 62 | 1,959 | 0 | 1,959 |
| 54 NUCLEAR WASTE FUND | 291 | 20 | 311 | 44 | 357 |
| HEADQUARTERS | 154 | 3 | 157 | 23 | 180 |
| FIELD | 137 | 17 | 154 | 23 | 177 |
| 56 GEOTHERMAL RESOURCES DEV FUND | 1 | 0 | 1 | 0 | 1 |
| HEADQUARTERS | 1 | 0 | 1 | 0 | 1 |
| 65 FOSSIL ENERGY RESEARCH AND DEV | 706 | -9 | 703 | -113 | 590 |
| HEADQUARTERS | 141 | -3 | 138 | 0 | 138 |
| FIELD | 565 | 0 | 565 | -113 | 452 |
| 70 MINNAPL PETROL & OIL SHALE RES | 99 | -4 | 95 | 0 | 95 |
| HEADQUARTERS | 20 | 2 | 22 | 0 | 22 |
| FIELD | 79 | -4 | 73 | 0 | 73 |
| 75 ENERGY CONSERVATION | 322 | 30 | 352 | -109 | 243 |
| HEADQUARTERS | 201 | 24 | 227 | -84 | 143 |
| FIELD | 121 | 4 | 125 | -25 | 100 |
| 80 EMERGENCY PREPAREDNESS | 64 | 7 | 71 | 0 | 71 |
| HEADQUARTERS | 64 | 7 | 71 | 0 | 71 |
| 81 ECONOMIC REGULATION | 348 | -53 | 295 | -20 | 275 |
| HEADQUARTERS | 348 | -53 | 295 | -20 | 275 |
| 85 STRATEGIC PETROLEUM RESERVE | 152 | -0 | 147 | -5 | 142 |
| HEADQUARTERS | 34 | -12 | 22 | 0 | 22 |
| FIELD | 118 | 7 | 125 | -5 | 120 |
| 90 ENERGY INFORMATION ACTIVITIES | 446 | 20 | 466 | 0 | 466 |
| HEADQUARTERS | 446 | 20 | 466 | 0 | 466 |
| 94 ADVANCES FOR CO-OP WORK | 2 | 0 | 2 | 0 | 2 |
| FIELD | 2 | 0 | 2 | 0 | 2 |
| GRAND TOTAL | 16,193 | 274 | 16,417 | -204 | 16,213 |
| ADJUSTMENT | | -317 | -317 | 54 | -263 |
| ADJUSTED TOTAL | 16,193 | -93 | 16,100 | -150 | 15,950 |

ENERGY SUPPLY, RESEARCH AND DEVELOPMENT
ACTIVITIES

(Including Transfer of Funds)

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 energy supply, research and development activities, and other activities in carrying out the purposes of the Department of Energy Organization Act (Public Law 95-91), including the acquisition or condemnation of any real property or any facility or for plant or facility acquisition, construction, or expansion; purchase of passenger motor vehicles (not to exceed [18] 21 for replacement only), [\$1,347,048,000,] \$1,909,710,000, to remain available until expended; [in addition \$684,158,000 shall be derived by transfer from Uranium Supply and Enrichment Activities provided in prior years and shall be available until expended; and of which \$84,100,000 which shall be available only for the Center for New Industrial Materials; the Center for New Industrial Materials; the Center for Nuclear Imaging Research; the Energy Research Complex; Saint Christopher's Hospital for Children - Energy Demonstration Project; Center for Excellence in Education - Energy Utilization Performance Project; the Institute of Nuclear Medicine; the Advanced Science Center; the Center for Science and Engineering; and funds provided for byproducts utilization activities shall be available only for the following regional projects: Florida Department of Agriculture and Consumer Services; Hawaii Department of Planning and Economic Development; Iowa State University; Oklahoma, Red-Ark Development Authority; Washington, Port of Pasco; State of Alaska.] (Energy and Water Development Appropriations Act, 1987 as included in Public Laws 99-500 and 99-591, section 101(e),) and in addition, as authorities by section 201 of Public Law 95-238 and notwithstanding 31 U.S.C. 3302, revenues received as user fees for use of the Liquefied Gaseous Fuels Spill Test Facility in Fiscal Year 1988 shall be retained and used to provide toxic and flammable spill test facilities and activities.

Explanation of Change

Deletes Language contained in Public Laws 99-500 and 99-591 which had specific application to fiscal year 1987.

Proposed Language provides fees from non-Federal users of the Liquefied Gaseous Fuels Spill Test Facility in Nevada to be received into the account as reimbursable expenses to be retained and used to operate, manage and maintain the facility.

DEPARTMENT OF ENERGY
 FISCAL YEAR 1988 CONGRESSIONAL BUDGET REQUEST
 SUMMARY OF ESTIMATES BY APPROPRIATION BY MAJOR ACTIVITY
 ENERGY SUPPLY RESEARCH AND DEVELOPMENT
 BUDGET AUTHORITY IN THOUSANDS OF DOLLARS

| | FY 1986 Actual | FY 1987 Estimate | FY 1988 Request |
|--|-------------------|---------------------|--------------------|
| Solar Energy | \$ 143,464 | \$ 123,532 | \$ 71,175 |
| Cooperative Venture R&D Pools | --- | --- | 5,000 |
| Geothermal | 26,495 | 20,830 | 15,935 |
| Hydropower | 481 | 450 | --- |
| Electric Energy Systems | 11,387 | 11,276 | 6,500 |
| Energy Storage Systems | 17,142 | 16,589 | 7,500 |
| Nuclear Energy R&D | 372,037 | 327,474 | 334,170 |
| Remedial Action & Waste Technology . | 229,915 | 276,870 | 251,500 |
| Civilian Waste R&D | 15,991 | 6,500 | 5,000 |
| Environmental, Safety and Health ... | 44,004 | 62,014 | 70,000 |
| Biological and Environmental Research | 178,000 | 193,992 | 217,500 |
| Liquified Gaseous Spill Test Facility | 1,732 | 2,000 | 500 |
| Magnetic Fusion | 361,480 | 345,313 | 345,600 |
| Basic Energy Sciences | 419,850 | 525,450 | 479,075 |
| Energy Research Analysis | 2,567 | 2,000 | 3,700 |

DEPARTMENT OF ENERGY
 FISCAL YEAR 1988 CONGRESSIONAL BUDGET REQUEST
 SUMMARY OF ESTIMATES BY APPROPRIATION BY MAJOR ACTIVITY
 ENERGY SUPPLY RESEARCH AND DEVELOPMENT (CONTINUED)

BUDGET AUTHORITY IN THOUSANDS OF DOLLARS

| | <u>FY 1986 Actual</u> | <u>FY 1987 Estimate</u> | <u>FY 1988 Request</u> |
|---|---------------------------|-----------------------------|----------------------------|
| University Research Instrumentation. | 6,176 | 5,000 | 5,000 |
| University Research Support | 10,168 | 15,775 | 13,400 |
| Advisory and Oversight Program Direction | 2,674 | 2,490 | 3,200 |
| Multi-Program Laboratories Facilities Support | 39,908 | 56,695 | 56,600 |
| Small Business Innovation Research Program | 29,137 | --- | --- |
| In-House Energy Management | 11,715 | 16,500 | 18,800 |
| Strategic Facilities Utilization Program | --- | --- | 2,175 |
| Technical Information and Management | 12,407 | 14,698 | 14,000 |
| Policy and Management | <u>3,497</u> | <u>3,874</u> | <u>4,300</u> |
| Subtotal, Energy Supply R&D ... | 1,940,227 | 2,029,322 | 1,930,710 |
| Less Use of Prior Year Balances and Other Adjustment | <u>-238,876</u> | <u>-775,191</u> | <u>-16,000</u> |
| Total, Energy Supply R&D..... | <u>\$1,701,351</u> | <u>\$1,254,131</u> | <u>\$1,914,710</u> |

DEPARTMENT OF ENERGY
FY 1988 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY RESEARCH AND DEVELOPMENT

OVERVIEW

Technical Information Management Program

The information generated by the multi-billion dollar research and development (R&D) program of the Department of Energy (DOE) is captured in some 40,000 summaries per year reporting the results of this major investment of tax dollars. The Technical Information Management Program (TIMP) was established by DOE to gather, organize, analyze, and disseminate this R&D information to DOE-funded investigators and program managers and to facilitate access to the information by other Government organizations, industry, academia, and the general public. In addition to assuring cost-effective and efficient management, control, and accountability for the information resulting from DOE-funded R&D, the TIMP has the further responsibility of collecting, analyzing, and disseminating the results of energy-related R&D from worldwide sources for the use of DOE and other U.S. scientists, engineers, managers and policy-makers.

To achieve these goals, the TIMP carries out the following activities on a continuing basis:

- o Manages the Department's master file of information on worldwide energy R&D. This database helps program managers as well as working scientists and engineers to determine what research has already been completed before new projects are begun. Some 200,000 records reporting completed research are added each year.
- o Recommends technical information management policy, standards and procedures for the Department.
- o Operates a system to control the dissemination of classified and sensitive information produced by DOE R&D programs.
- o Advises and assists DOE field sites in assuring that Departmental policies and procedures are followed for the management of scientific and technical information.
- o Negotiates and carries out bilateral and multilateral agreements for the international exchange of energy R&D information to support the Department's domestic and international collaborative R&D programs.

- o Maintains a database on energy-related research in progress, so that DOE researchers can determine what research is under way before new projects are begun.
- o Assists program managers in the dissemination of the results of DOE-funded research.
- o Assures the availability of DOE research results to other Government agencies, industry, academia and the general public.
- o Monitors the receipt of information deliverables from R&D contracts to assure that contracted requirements are met.

The TIMP strategic objectives for FY 1988 and following years are to steadily increase the efficiency and effectiveness of the program through:

1. Introducing new information-handling technology as it becomes available to enhance system capabilities without increasing costs;
2. Closely monitoring information needs of the Department to assure that services provided match the priority requirements of DOE and its contractors;
3. Making full use of commercial services whenever appropriate and available;
4. Actively pursuing opportunities to acquire research results from abroad in a timely and comprehensive fashion at minimum cost; and
5. Controlling the flow of information abroad in a manner designed to support DOE collaborative research projects while protecting the security and economic interests of the United States.

During 1988 substantial progress will have been made on the conversion to a much improved information processing system at Oak Ridge, using state-of-the-art equipment and offering a much broader range of information service possibilities at relatively low cost. As we continue to seek efficiencies and provide improved services we will explore opportunities such as utilizing new optical disk technology for providing economical on-demand report distribution services, and particular attention will be given to identifying the needs of DOE investigators for computerized access to evaluated numerical and factual data.

The gross costs of operating the Technical Information Management Program are partially offset by collections from users of its products and services.

DEPARTMENT OF ENERGY
 FY 1988 CONGRESSIONAL BUDGET REQUEST
 ENERGY SUPPLY RESEARCH AND DEVELOPMENT
 (dollars in thousands)

LEAD TABLE

Technical Information Management Program

| <u>Activity</u> | <u>FY 1986</u> | <u>FY 1987 Appropriation</u> | <u>FY 1988 Base</u> | <u>FY 1988 Request</u> | <u>% Change from FY 1987 Approp.</u> |
|--|------------------|----------------------------------|-------------------------|----------------------------|--|
| Technical Information Management Program | | | | | |
| Operating Expenses | \$ 13,066 | \$ 13,848 | \$ 13,893 | \$ 13,100 | - 5 |
| Capital Equipment | 550 | 850 | 850 | 900 | + 6 |
| Subtotal | <u>\$ 13,616</u> | <u>\$ 14,698</u> | <u>\$ 14,743</u> | <u>\$ 14,000</u> | <u>- 5</u> |
| Less transfer of prior year unobligated authority | - 1,209 | - 4,923 ^{1/} | 0 | 0 | - 100 |
| Net Budget Authority | <u>\$ 12,407</u> | <u>\$ 9,775</u> | <u>\$ 14,743</u> | <u>\$ 14,000</u> | <u>+ 43</u> |
| Staffing (FTEs) | 171 | 175 | 175 | 175 | |

Authorization: Section 31, P.L. 83-703

^{1/} To be reprogrammed from prior year unobligated funds.

DEPARTMENT OF ENERGY
FY 1988 CONGRESSIONAL BUDGET REQUEST
ENERGY SUPPLY RESEARCH AND DEVELOPMENT
(dollars in thousands)

SUMMARY OF CHANGES

Technical Information Management Program

| | |
|---|--------------|
| FY 1987 Appropriation enacted | \$ 9,775 |
| Plus obligational authority to be reprogrammed from prior year unobligated funds | + 4,923 |
| Adjustment for pay increase | <u>+ 45</u> |
| FY 1988 Base | 14,743 |
| Cost savings from contract consolidation, program efficiencies, and additional cost recovery from users will enable program activities to be continued at base level with reduced appropriations. | <u>- 743</u> |
| FY 1988 Congressional Budget Request | \$ 14,000 |

DEPARTMENT OF ENERGY
 FY 1988 CONGRESSIONAL BUDGET REQUEST
 ENERGY SUPPLY RESEARCH AND DEVELOPMENT
 (dollars in thousands)

KEY ACTIVITY SUMMARY

TECHNICAL INFORMATION MANAGEMENT PROGRAM

I. Preface: Technical Information Management Program

The information generated by the multi-billion dollar research and development (R&D) program of the Department of Energy (DOE) is captured in some 40,000 summaries per year reporting the results of this major investment of tax dollars. The Technical Information Management Program (TIMP) was established by DOE to gather, organize, analyze, and disseminate this R&D information to DOE-funded investigators and program managers and to facilitate access to the information by other Government organizations, industry, academia, and the general public. In addition to assuring cost-effective and efficient management, control, and accountability for the information resulting from DOE-funded R&D, the TIMP has the further responsibility of collecting, analyzing, and disseminating the results of energy-related R&D from worldwide sources for the use of DOE and other U.S. scientists, engineers, managers and policy-makers.

II. A. Summary Table

| | <u>FY 1986</u> | <u>FY 1987</u> | <u>FY 1988</u> | <u>\$ Change</u> |
|---|----------------|----------------|----------------|------------------|
| Operating Expenses | \$ 13,066 | \$ 13,848 | \$ 13,100 | - 5 |
| Capital Equipment | 550 | 850 | 900 | + 6 |
| Subtotal | \$ 13,616 | \$ 14,698 | \$ 14,000 | - 5 |
| Less transfer of prior year unobligated authority | - 1,209 | - 4,923 | 0 | - 100 |
| Net Budget Authority | \$ 12,407 | 9,775 | \$ 14,000 | + 43 |

II. B. Major Laboratory and Facility Funding

| | | | | |
|-------------------------------------|--------|--------|--------|-----|
| Argonne National Laboratory | \$ 200 | \$ 0 | \$ 0 | 0 |
| Oak Ridge National Laboratory | \$ 504 | \$ 208 | \$ 200 | - 4 |

III. Activity Descriptions

Program Activity

Technical Information Management Program

| | <u>FY 1986</u> | <u>FY 1987</u> | <u>FY 1988</u> |
|---------------------|---|--|--|
| - Program Direction | Provided for maintaining facility services (utilities, janitorial, telecommunications, maintenance). Also provided for FTEs required to manage the Department's centralized technical information program including: managing the master file of information on worldwide energy R&D; recommending policies and procedures; operating a system to control the dissemination of classified and sensitive information; negotiating and carrying out bilateral and multilateral agreements for the exchange of information; maintaining a database on energy-related research in progress so that DOE researchers can determine what research has been completed or under way before new projects are started; and monitoring the receipt of information deliverables from R&D contracts to assure that contract requirements are met. (\$7,369) | Continued facility services and FTEs for management of centralized technical information program. Finalized new International Energy Agency (IEA) working agreement for multilateral exchange of energy R&D information. (\$7,600) | Continue same level of facility services and management. Escalation increases offset by management efficiencies. (\$7,600) |

III. Activity Descriptions (Cont'd)

| | <u>FY 1986</u> | <u>FY 1987</u> | <u>FY 1988</u> |
|-----------------------------|---|---|---|
| - Acquisition and Appraisal | Provided for contract services to acquire and evaluate scientific and technical information which is made available to DOE scientists and engineers, and to meet requirements of certain international exchange agreements. (\$1,865) | Continued same level of acquisition and evaluation services. Reduced funding requirements through consolidation of contracts. (\$1,600) | Maintain same level of services. Further contract consolidation savings reflected. (\$1,500) |
| - Systems and Technology | Provided for contract services and equipment required to develop, build, and maintain information systems and to provide automated access to scientific and technical information. (\$2,120) | Additional funds required for converting DEC 10 systems to more efficient VAX cluster and operating dual systems during interim period. (\$2,600) | Maintain basic information systems but will reduce funding requirements through contract efficiencies. (\$2,400) |
| - Products and Services | Provided for contract services, equipment and supplies required to produce and make available information resulting from DOE's energy research. (\$2,262) | Continued to provide essential products and services. Provided \$300,000 additional capital equipment funds to replace old and inefficient duplicating equipment. (\$2,898) | Continue to provide same level of products and services. Funding requirements will be reduced by contract efficiencies and additional cost recovery from users. (\$2,500) |
| Total | <u>\$13,616</u> | <u>\$14,698</u> | <u>\$14,000</u> |

DEPARTMENT OF ENERGY
 FY 1988 CONGRESSIONAL BUDGET REQUEST
 ENERGY SUPPLY RESEARCH AND DEVELOPMENT
 (dollars in thousands)

OBJECT CLASS

Technical Information Management Program

| | <u>FY 1986</u> | <u>FY 1987 Estimate</u> | <u>FY 1988 Estimate</u> |
|--|-----------------|-----------------------------|-----------------------------|
| Direct Funding: | | | |
| 11.1 Full-time permanent | \$ 4,761 | \$ 4,942 | \$ 5,057 |
| 11.3 Other than full-time | 400 | 414 | 422 |
| 11.5 Other Compensation | 146 | 153 | 154 |
| 11.9 Total - personnel compensation | <u>5,307</u> | <u>5,509</u> | <u>5,633</u> |
| 12.1 Benefits | 611 | 634 | 648 |
| 21.0 Travel | 130 | 135 | 140 |
| 25.0 Other Services | 7,018 | 7,570 | 6,679 |
| 31.0 Equipment | <u>550</u> | <u>850</u> | <u>900</u> |
| 99.0 Subtotal | 13,616 | 14,698 | 14,000 |
| Funding Source: Less transfer of prior year unobligated authority | - 1,209 | - 4,923 | 0 |
| Net Authority | <u>\$12,407</u> | <u>\$ 9,775</u> | <u>\$14,000</u> |