

DEPARTMENT OF ENERGY
FY 2000 CONGRESSIONAL BUDGET REQUEST
ENERGY EFFICIENCY AND RENEWABLE ENERGY
ENERGY CONSERVATION

(Tabular dollars in thousands, Narrative in whole dollars)

FEDERAL ENERGY MANAGEMENT PROGRAM

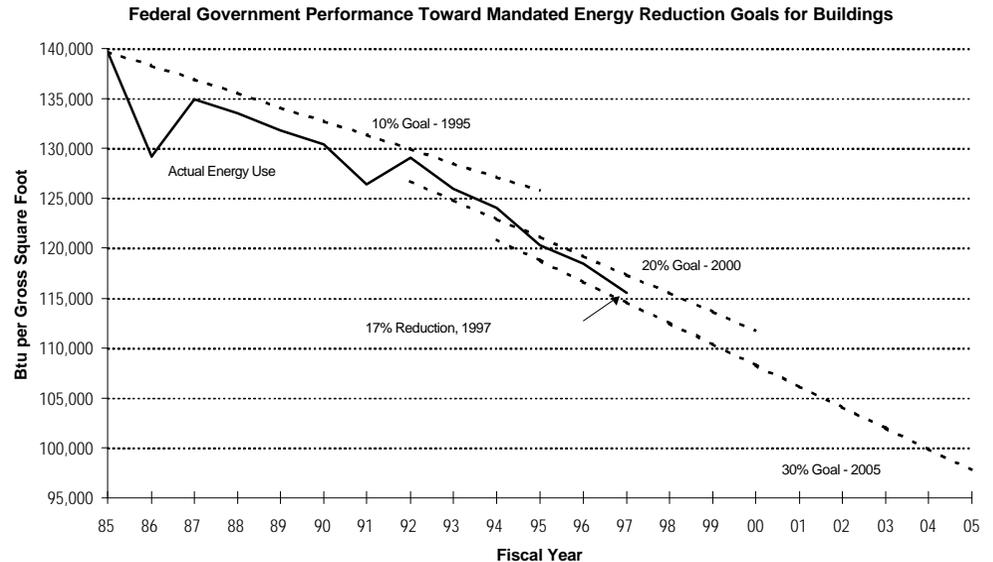
PROGRAM MISSION

I.A. Mission Statement, Situation, Strategic Overview

Mission Statement. The mission of The Federal Energy Management Program (FEMP) is to reduce the use and cost of energy in the Federal sector by advancing energy efficiency, water conservation, and the use of solar and other renewable energy sources. FEMP accomplishes its mission by leveraging both Federal and private resources to provide technical and financial assistance, mainly to other Federal agencies.

Situation Analysis. The Federal Government is the nation's largest single energy consumer. Federal building stock in the United States and overseas is widely distributed geographically and functionally diverse. Energy is used for a wide variety of purposes by more than one hundred agencies and government-related organizations. Energy use in the Federal Sector varies widely across agencies, depending on their mission. Some agencies use energy only in office facilities; others maintain large fleets of vehicles; still some others have specialized applications such as research and development operations that use energy in highly intensive ways.

By Executive Order, which extended the statute, the Federal Energy Management Program is charged with coordinating efforts to achieve a 20% efficiency improvement in Federal buildings by the year 2000 and a 30% efficiency improvement by the year 2005, from 1985 levels. With over \$2 billion in appropriations for energy management between 1985 and 1997, the government achieved a 17% improvement in site based energy use and reduced annual energy costs by \$2.2 billion. FEMP



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continues to make sure that cost saving energy efficiency and renewable energy projects are completed regardless of whether energy is measured at the site or the source. Additional savings will accrue over the life of investments already completed. Since 1985, energy use in Federal buildings has declined 26% overall, saving a cumulative \$16.7 billion. While these savings have reflected government downsizing and declining energy prices, as well as investment in efficiency, reaching the 2005 goal through energy management will save as much as an additional \$1 billion annually relative to 1995 levels. The Federal sector is on track to achieve the 30% goal, yet faces significant challenges in doing so.

Additionally, the President's July 1998, message pledged that the Government will lead the nation in reducing energy use and directed agencies to use tools available under current legislation, such as energy savings performance contracts, to maximize energy savings.

This budget requests critical up-front funding needed to accelerate the completion of delivery orders under FEMP's Super-Energy Savings Performance Contracts (ESPCs). ESPCs put in place over the last three budget cycles, provide continued funding support for core FEMP program activities. In addition this budget request anticipates new legislative authority that tasks FEMP with performance contracting to address mobility energy efficiency, Federally leased space, as well as for water conservation.

Federal appropriations for efficiency projects that require capital from agency budgets have been greatly reduced from 1995 levels. Yet an additional \$5 billion in efficiency investments is estimated to be needed between 1995 and 2005 to achieve the 30% efficiency improvement goal. Utilizing statutory authorities provided in the Energy Policy Act of 1992, the Administration is accelerating the use of private sector funding to meet this investment challenge.

The table below illustrates the decline in past appropriations that necessitate alternative financing.

Appropriations for Federal Energy Efficiency Projects (\$ million)					
	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
Department of Defense*	240	112	51	29	47
General Services Administration	7	7	20	0	25
Department of Energy	25	0	0	0	0
Total	272	119	71	29	72

* Includes Department of Defense central funds and estimated spending by services from unfenced energy accounts.

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Additional opportunities for Federal energy and cost savings exist in energy-intensive operations and Federal industrial facilities, leased space, and in aircraft, ships, and other heavy equipment. The government faces emerging challenges and risks in an increasingly complex restructured energy market, and in the unresolved environmental policy challenge presented by global climate change.

Strategic Overview. FEMP achieves its mission through two primary strategies:

- Create and sustain a core level of Federal energy management as an institutionalized activity at all Federal agencies.
- Open access to private sector capital to fund capital energy efficiency and renewable energy projects by Federal agencies.

FEMP leads the interagency effort focussed on the Federal energy management mission. We lead, coordinate, and assist agencies to install cost-effective technologies to achieve our goals. The FEMP program is customer driven and needs based. We provide agencies with information, expertise, technical assistance, project financing vehicles, policy guidance, and interagency coordination that help agencies achieve significant energy and cost savings in their facilities. FEMP priorities are implemented through integrated programs and an aligned field organization that includes regional support offices, National laboratories and private sector contractors.

We apply three key business principles to drive our organization:

- *Cost recovery* stretches the value of appropriated funds, accelerates investment and cost savings, and potentially reduces the need for future appropriations. Agency payment, in the form of up-front funding or as part of realized savings, affirms proper design, delivery and value of services offered.
- *Partnering* creates greater cooperation, higher probability of successful implementation, increased responsiveness to customer needs, and greater opportunity for innovative action. We support and encourage agencies to pursue many ways to acquire funding and implement energy efficiency and renewable energy projects at their facilities. Partnering with states, utilities and energy service companies (ESCOs) multiplies the ability of FEMP and other agencies to assist Federal sites across the country with cost-effective energy management solutions.
- *Leveraging* capitalizes on the shared interests among FEMP, non-Federal organizations, and other Federal agencies to achieve our individual objectives in mutually supportive ways. Thus, FEMP advances efficient and renewable technologies developed by other parts of the Office of Energy Efficiency and Renewable Energy. We leverage the DOE-EPA Energy Star program to increase the energy efficiency of the annual \$200 billion of Federal procurement activity.

The FEMP core program helps agencies help themselves. We act to institutionalize energy efficient management practices and to create agency capacities to sustain and further energy and cost savings. FEMP does this through a broad-based, interconnected program that disseminates critical knowledge and skills to other Federal agencies, in a context of sound planning, analysis, and policy interpretation. The core program

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provides continuously updated training, skills, and technical know-how to agencies, enabling them to recognize and take advantage of new and important energy-saving technologies and techniques. We analyze, plan, and coordinate with agencies on emerging issues, such as electric utility restructuring and global climate change, identifying implications for Federal energy management and procurement and potential responses to those implications. Core program activities ensure the long-term effectiveness of the Government's effort, renewing its technical and policy bases as broader trends shape future opportunities. FEMP saves the government money by reducing duplication and overlap in technical information, training and assistance services. We ensure consistency and high quality policy, technical guidance, reporting, and analysis through a core focus on interagency coordination and cooperation. (See Mission Supporting Goals and Objectives for detailed discussion of core program elements.)

The FEMP financial assistance program supports agencies' access to private sector funding for efficiency and renewable energy projects. The financial assistance program responds directly to the significant reduction of appropriations included in agency budgets. We support Federal sites' use of alternative financing by offering technical services and access to FEMP-negotiated energy savings performance contracts (Super ESPCs) with ESCOs. FEMP technical services also support projects (on a cost-recovered basis) that use utility financing, as well as other performance contracts issued by other agencies. The FEMP Service Network (FSN) provides a single access point for FEMP procurement and technical services for alternatively financed projects and is also intended, for other technical assistance services. The FSN is a virtual organization of FEMP representatives at DOE Regional Support Offices, technical experts at several National Laboratories, energy audit and technical services contractors, and DOE contracting officers at DOE headquarters, Golden Field Office, and Oak Ridge Operations Office. (See Mission Supporting Goals and Objectives for detailed discussion of project financing program elements.)

FEMP's strategy succeeds with consistent funding of the core program across time, and with strong early funding of the financial assistance program. As the financial assistance program matures, its appropriations level should decline in proportion to costs recovered, which recycle in support of new energy and cost savings opportunities at agencies. A successful cost recovery program could create up to \$20 million annual flow of recovered funds by FY 2005, obviating the need for further appropriated support of the financial assistance program. The FY 2000 budget request is designed to achieve the FY 2005 goal through support of the following:

- The FEMP core program, including providing technical information, training, and non-cost recovered technical assistance; coordinating the utility incentive program; promoting renewable technology use; leading interagency policy, coordination, and reporting; providing education, outreach, and recognition of agency and individual accomplishments; and managing and directing the program, including program planning, analysis, and policy development functions.
- Up-front funding for the FEMP Service Network to build the system and accelerate the pace of Super ESPC delivery orders and utility-financed projects placed by agencies. Up-front funding accelerates the realization of the deferred revenue stream to FEMP, implements projects more quickly and creates cost savings sooner, and maintains the interest and motivation of ESCOs, utilities and agencies by demonstrating rapid success.

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- Up-front funding for the Project Initiation Assistance (PIA) program operating in conjunction with the FSN. Costs recovered will be tracked and utilized through an accounting system that is integrated back into the FEMP Program.
- Project approaches that show promise of achieving energy and cost savings with minimal capital investment, such as procurement streamlining, improving operations and maintenance, instituting sustainable design concepts in new buildings and major renovations.
- New initiatives to expand the reach of alternative financing for energy efficiency and renewable energy projects in Federal mobility applications and leased space.
- Federal leadership in energy management to promote an aggressive energy and cost-savings culture in agencies and by demonstrating success in DOE's own facilities.
- Federal/State cooperative efforts to service Federal sites and to transfer the FEMP alternative financing model to state and local governments, broadening the overall impact of FEMP's efforts to save taxpayer dollars.

I. B. Program Benefits

Potential program benefits from FEMP are significant as is evident from the magnitude of the opportunity and the record of past success. The sheer magnitude of opportunity is clear: the Federal Government is the nation's single largest energy consumer and, therefore, represents a substantial commitment of Federal dollars every year. In FY 1997, the Federal Government consumed approximately 1.5 quadrillion Btu (quads) of primary energy -- about 1.6% of the nation's total. This is equivalent to the energy required by the state of Massachusetts. The cost of this energy in FY 1997 was about \$8.2 billion -- about 0.5% of total Federal expenditures for all purposes in FY 1997. Of the Federal energy total, 45.7% serves buildings and facilities. Another 43.8% serves our Nation's Federal mobility requirements, from military jets and ships to Postal Service delivery trucks. (The small remainder is devoted to energy-intensive buildings which are currently exempted from meeting legislated goals.)

Success to date in reducing energy use in Federal buildings and facilities is impressive. From FY 1985 to FY 1997, the energy efficiency of Federal buildings -- measured in Btu per gross square foot -- improved by 17%. We are more than three-quarters of the way to our statutory 2000 goal, and more than half way to the year 2005 goal of increasing energy efficiency by 30% relative to 1985. The energy bill for Federal buildings declined by nearly \$2.2 billion from 1985 to 1997, partly as a result of efficiency investments.

The energy and dollar benefits attributable to Federal efficiency actions in 2000, 2005, and beyond as shown below, are based on several key assumptions. First, consistent with historical success, we assume that the year 2000 and 2005 goals of a 20% and, 30% efficiency improvement are achieved in Federal buildings. Second, we also assume that this rate of efficiency progress is continued from 2005 to 2010 in the absence of additional energy reduction goals but not beyond 2010. Third, we assume that total gross square footage, mimicking past experience, continues to decline at 1% per year through 2010. Shown below are benefits for all Federal buildings.

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Federal Government Performance and Results Act Benefits with Current Legislation

Metric (Annual Savings Achieved in Year)

Federal Buildings	2000	2010	2020
Total Primary Energy Displaced (Quads)	0.05	0.14	0.14
Total Cost Savings in Year (1997 \$-Millions)	\$330	\$855	\$805
Carbon Equivalent Savings [million metric tons of carbon equivalent (MMTCE)]	0.9	2.5	2.5

These benefits flow from the large number of efficiency financing options underway at Federal sites. Assessment of these benefits should include important activities that are *not* directly driven by FEMP, such as the Army Corps of Engineers=energy saving performance contracting activities. FEMP is currently conducting a business development assessment to understand fully the federal market for the services of the FEMP Service Network. Preliminary indications are that the market will largely consist of the Navy, Marines, and most civilian agencies. The total combined effect of FEMP's portfolio, including the FEMP Service Network, Utility Incentives Program, Procurement Challenge, and Technical Services, is assumed to occur in these segments of the total Federal energy market - about 47% of the total. The benefits *directly attributable* to FEMP are shown on the chart below. These savings are a function of successfully implementing efficiency investments in these agencies. FEMP will work with other DOE Energy Efficiency and Renewable Energy (EERE) programs such as the Office of Building Technology, State and Community Programs (BTS), the Office of Utility Technologies, and the Office of Industrial Technologies, to deploy cost-effective, high-performance technologies in Federal facilities. FEMP will assist BTS in identifying opportunities in Federal facilities to support the EnergySmart Schools program. In particular, FEMP will work with the Bureau of Indian Affairs and other Federal agencies to assist Federally-owned schools in reducing their energy costs. An important underlying long-term benefit of all these activities is building an infrastructure in Federal agencies that institutionalizes energy efficiency as a standard business practice.

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FEMP-Specific Government Performance and Results Act Benefits with Current Legislation

Metric (Annual Savings Achieved in Year)

Federal Buildings	2000	2010	2020
Total Primary Energy Displaced (Quads)	0.02	0.07	0.07
Total Cost Savings in Year (1997 \$-Millions)	\$155	\$400	\$380
Carbon Equivalent Savings (MMTCE)	0.4	1.2	1.2

Great potential also exists for efficiency in transportation technologies within the Federal government. *Contingent upon additional legislative authority currently under development*, ESPC contracts for mobility applications are estimated to save 10% of current mobility energy in 2010. The national scale benefits of authorizing such authority are provided below. Work with EERE's Office of Transportation Technologies to incorporate advanced automotive technologies into the Federal fleet of automobiles and trucks is taken into account in these estimates.

(Annual Savings Achieved in Year)

Federal Mobility	2000	2010	2020
Total Primary Energy Displaced (Quads)	0	.07	.07
Total Cost Savings in Year (1997 \$-Millions)	\$0	\$430	\$450
Carbon Equivalent Savings (MMTCE)	0	1.3	1.3

The *total* potential impact provided by FEMP, including Mobility and Buildings, is as follows:

(Annual Savings Achieved in Year)

Federal Buildings and Federal Mobility	2000	2010	2020
Total Primary Energy Displaced (Quads)	.02	.14	.14
Total Cost Savings in Year (1997 \$-Millions)	\$155	\$830	\$830
Carbon Equivalent Savings (MMTCE)	0.4	2.5	2.5

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ENERGY CONSERVATION
(Dollars in thousands)

PROGRAM FUNDING PROFILE

Federal Energy Management Program

Activity	FY 1998	FY 1999	FY 2000	FY 2000	Program Change Request vs. Base	
	Enacted	Enacted	Base	Request	Dollar	Percent
Federal Energy Management Program						
Operating Expenses.....	\$ 19,800	\$ 23,818	\$ 23,818	\$ 31,868	\$+8,050	+33.8%
TOTAL.....	\$ 19,800	\$ 23,818	\$ 23,818	\$ 31,868	\$+8,050	+33.8%
Summary						
Operating Expenses.....	\$ 19,800	\$ 23,818	\$ 23,818	\$ 31,868	\$ +8,050	+33.8%
Total Program.....	\$ 19,800	\$ 23,818	\$ 23,818	\$ 31,868	\$+8,050	+33.8%
Staffing (FTEs)						
HQ FTEs.....	22	27	27	26		
Field FTEs.....	0	0	0	0		
Total FTEs.....	22	27	27	26		

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SUMMARY OF CHANGES

Federal Energy Management Program

FY 1999 Enacted	\$	23,818
- Non-Discretionary		0
FY 2000 Base	\$	23,818
 <u>Federal Energy Management Program</u>		
- Project Financing - Increases project assistance for delivery orders as values increase by 60% over FY 1999 estimates. Allows for planned expansion of ESPCs for water conservation projects and energy-efficiency projects to Federal mobile equipment and leased space, and provides for FSN activities related to alternate financing efforts. Also, positions the Federal government to take advantage of utility opportunities for energy efficiency		+3,500
- Technical Guidance and Assistance - Increases support for delivery of project assistance and technical information products as well as for Federal procurement of energy efficient technologies such as consolidated purchasing to stimulate market and lower prices. Supports simplified design and purchasing of solar systems for Federal customers. Also increases technical support with the rapidly expanded use of ESPCs and growing number of delivery orders.....		+2,750
- Planning, Reporting, and Evaluation - Expand technical and analytical support to resolve issues related to energy and water conservation and renewable energy use to make updated policy changes that will impact energy markets such as utility restructuring and Agreen@power procurement		+1,000
- Program Direction - Supports FTEs needed to manage expanded finance and technical assistance program efforts ..		+800
FY 2000 Congressional Budget.....	\$	31,868

FEDERAL ENERGY MANAGEMENT PROGRAM

I. Mission Supporting Goals and Objectives: Core Program and Financial Support

The Federal Energy Management Program performs its mission through an integrated program to assist agencies in achieving the Federal energy management goals set forth in the Energy Policy Act of 1992, Executive Order 12902, and other relevant laws. FEMP accomplishes these aims by providing leadership and coordination on cross-cutting issues, providing technical assistance and training in a wide variety of areas, and working with other agencies to facilitate energy efficiency and renewable technology activities that they undertake on their own. FEMP's role in these efforts is multi-faceted, reflecting both the nature of the challenge posed by the goals, and the characteristics of FEMP's constituent agencies and their activities. Up to \$1 billion in annual energy cost savings will result from the cumulative effect of Federal energy management investments and effort by 2010.

FEMP groups its activities in three general categories: Project Financing, which focuses on developing, and helping agencies to implement alternative methods of financing projects; Technical Guidance and Assistance, which aims to transfer to Federal agencies the knowledge and expertise required to make sound efficiency and renewable energy technology investment choices; and Planning, Reporting, and Evaluation, by which FEMP develops integrated, results-oriented approaches to manage, implement, and track the program. As a set, these activities represent FEMP's dedication to assisting all agencies in their energy savings efforts. It also provides a multi-faceted approach to reach agencies and provide them with the tools and information to enable them to pursue efficiency and renewable projects.

PROJECT FINANCING: HELPING AGENCIES HELP THEMSELVES TO INVEST IN ENERGY EFFICIENCY

The project financing component of FEMP's program effectively combines three business principles -- cost-recovery, partnership, and leverage -- in an innovative program that links FEMP, other Federal agencies, and the private sector. FEMP uses a variety of mechanisms to help agencies access private capital, tap into private sector and national laboratory technical expertise, and finance energy savings projects. This includes employing ways to sharpen our focus on the market and target our efforts in the most cost-effective manner. In FY 2000, we will do this, chiefly by greatly expanding the use of non-federal funding for Federal energy savings projects.

Energy Savings Performance Contracting. Energy savings performance contracting (ESPC) is one of the most important ways that the Federal government can access private sector investment for Federal energy savings. ESPC projects are extremely cost-effective. Investments using this mechanism represent a mutually beneficial link between industry and agencies, by both providing performance-based profits to energy service companies for their products and services and reducing future Federal energy budgets by as much as 25 times the cost to the Government of administering the program. In FY 2000, FEMP will intensify its efforts to establish and utilize this vehicle in two ways.

I. Mission Supporting Goals and Objectives: FEDERAL ENERGY MANAGEMENT PROGRAM (Cont'd)

A first critical step will be to expand the FEMP Super ESPCs. Any agency can use these government-wide ESPC contracts to rapidly access private capital and energy services for a wide variety of efficiency and renewable technologies. There are 26 DOE Super ESPCs available to agencies. By the end of FY 2000, FEMP plans to put in place up to 17 additional contracts. The expanded use of Super ESPCs will help agencies reduce the burden of soliciting individual contracts. A more effective government will result because appropriated dollars can be applied toward other agency priorities.

Second, FEMP will help agencies set up contracts under this vehicle. To streamline the provision of the project financing assistance and technical assistance that agencies need, FEMP has established the FEMP Service Network (FSN) to serve as the central point of contact for the 100+ Federal agencies for ESPC contracting. The FSN coordinates FEMP's ESPC activities, disseminates information and guidance, interprets policy, trains Federal employees on the use of the contracting mechanisms, and develops and operates contracting and other administrative systems to support the program. Services that are provided directly to agencies are done so on a cost-reimbursable basis through the FSN Project Initiation Assistance (PIA) program. The PIA is an arrangement whereby the FSN provides technical assistance to agencies in establishing energy savings performance projects (and contracts) with energy service companies or utilities. FEMP provides agencies with a wide range of technical information and services to assist them in accurately identifying their energy investment needs and savings potential, and negotiating the best possible contract with an ESCO or utility. FEMP is reimbursed by the agency for the cost of FSN services after the project savings are realized. The precise nature and scope of our PIA efforts in FY 2000 will reflect the outcome of a business strategy assessment that FEMP will complete in FY 1999. In addition to the super ESPCs, some agencies, such as the Department of the Army, have established their own similar, umbrella contracting authorities. The FSN will also provide reimbursable assistance, as requested, to help agencies put energy projects in place by utilizing these non-FEMP based ESPC contracts.

At the end of FY 1998, FEMP was working with various agencies to develop more than 150 projects. Five agencies initiated projects through Super ESPCs, using private sector investments of more than \$7 million. One project is for the San Francisco Veterans Affairs Medical Center. The project involves replacing a boiler with a steam production system and energy management control system, replacing the medical air compressor and cooling coil, a motor efficiency upgrade, and a lighting retrofit. The ESCO's investment is almost \$4.8 million and repayment will occur over the 19-year project term from the annual savings of more than \$500 thousand. The project is also generating a rebate from Pacific Gas and Electric. DOE and the Department of Veterans Affairs put the delivery order together quickly, taking only six months from initial interest through delivery order award. The ESCO and the VA are working on a second delivery order at the site for cogeneration. The VA will reimburse DOE \$30,000 for project support. DOE signed four interagency agreements with the General Services Administration, the Department of Veterans Affairs, and the Department of Army for six projects. The interagency agreements will result in reimbursement of \$200,000 to DOE to assist agencies on other efficiency and renewable projects.

Utility Service Program. As part of its Project Financing efforts, FEMP will also continue to facilitate partnerships between utilities that have incentive programs and Federal agencies. The offering of incentive programs varies among utilities, but generally takes the form of initial

I. Mission Supporting Goals and Objectives: FEDERAL ENERGY MANAGEMENT PROGRAM (Cont'd)

audits, specialized technical assistance, completion of feasibility studies, and access to financing for completion of energy efficiency and renewable energy projects. Numerous projects have been completed, are under way, proposed, or anticipated. Table 1 provides summary information regarding projects at the beginning of FY99.

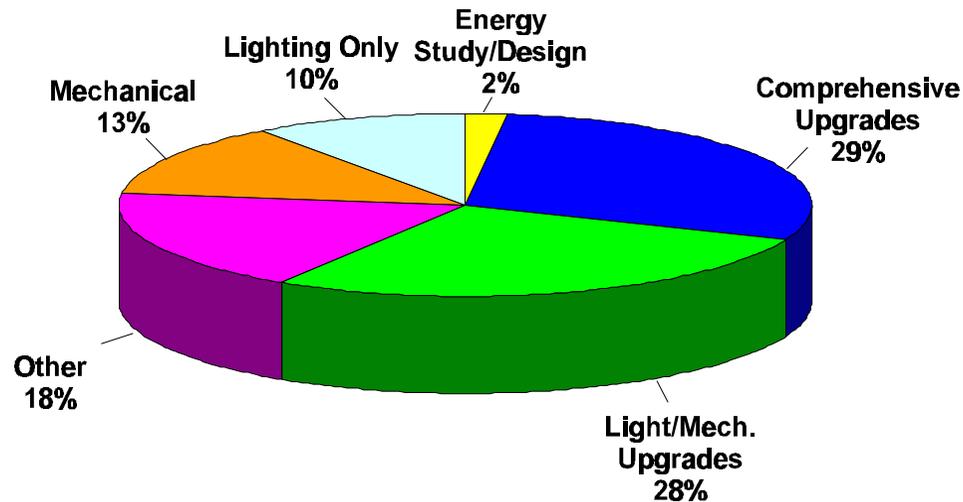
Table 1: Utility Projects

- Number of Utilities Reporting: 42
- Total Project Investments: \$393 million
- Total Number of Projects: 310
- Average Cost of Project: \$1.5 million
- Current estimated annual cost savings: \$34.0 million, with expected annual cost savings at roughly \$50 million upon completion of on-going projects.

Note: Many project cost savings are yet to be determined.

Most of the utility projects to date have focused on lighting and mechanical retrofits or comprehensive upgrades that could have included improvement to the overall building envelope. Figure 1 provides a breakdown of the specific type of projects that have been undertaken.

Figure 1: Types of Utility Projects



I. Mission Supporting Goals and Objectives: FEDERAL ENERGY MANAGEMENT PROGRAM (Cont'd)

Information regarding a sample of both completed and on going utility-related energy projects are provided below. Provided is information regarding the typical scope of the project, actual or planned completion date, and nature of the support provided from FEMP in getting the projects under way. These projects were chosen to highlight the range of technologies applicable in Federal buildings. The nature and magnitude of the projects demonstrates the commitment by utilities to work with agencies so they can meet both EPA Act and Executive Order 12958 energy reduction goals. It also highlights projects, such as Ft. Detrick, where both the Department of Defense and the Department of Human and Health Services, which occupy about 50% of the buildings at the Fort, are working together on projects that ultimately benefit both agencies.

Completed Projects:

White Sands Missile Range - Department of Defense: This comprehensive resource management program was the first project to take advantage of the GSA Area-wide contract. This project was initiated through Public Service New Mexico (PNM) with assistance from FEMP and the National Renewable Energy Laboratory (NREL).

Total Project Cost: \$15 million.

Comprehensive Upgrades: Natural gas conversion, lighting retrofits, HVAC upgrades, boiler efficiency improvements, load management, energy management control systems (EMCS), and steam distribution repairs.

Completion Date: Projects were initiated in 1995 and will be completed by the end of 1998.

Annual Energy Savings: Estimated \$4.3 million.

Payback: Less than 10 years.

Utility: PNM financed the projects; initial capital investment will be repaid through a shared savings program.

FEMP Support: Evaluation of conservation measures and contractual support to help educate and guide parties on appropriate actions.

Chet Holifield Federal Building - General Services Administration: This project was a comprehensive upgrade of GSA's third largest building. Southern California Edison (SCE) facilitated the project through its ENVEST program. GSA received guidance from FEMP and NREL.

Total Project Cost: \$4.4 million

Comprehensive Upgrades: Lighting retrofit, HVAC upgrades, thermal energy storage, and central plant upgrades.

Completion Date: Project began in March 1994 and was completed April of 1997.

Annual Energy Savings: \$600,000 (25% electricity reduction and 10% gas reduction).

Payback: Less than 8 years.

Utility: SCE financed total capital cost, which will be paid back from energy savings.

FEMP Support: Evaluation of proposed conservation measures and assistance in contractual support.

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Ongoing Projects:

Herbert C. Hoover Building - Department of Commerce: This project was a Federal Energy Saver Showcase in Washington DC, utilizing the results from the FEMP SAVEnergy Action Plan.

Total Project Cost: \$1.4 million

Comprehensive Upgrades: Energy efficient motors, Energy Management Control Systems (EMCS), chiller upgrades, and refrigeration retrofits.

Completion Date: This project is currently under way.

Annual Energy Savings: \$387,000 and 50 million gallons of water annually.

Utility: Utility service contract with Potomac Electric Power Company.

FEMP Support: Technical assistance and contractual support.

Ft. Detrick - Department of Defense: The Fort has undertaken a site-wide energy conservation program with design assistance from Pacific Northwest National Laboratories.

Total Project Cost: More than \$12 million.

Comprehensive Upgrades: Lighting and HVAC retrofits.

Completion Date: This project is under way, several retrofits were completed in spring 1998.

Annual Energy Savings: \$1.5 million with total guaranteed government retained savings of \$8 million.

Payback: Varies by project.

Utility: Allegheny Power.

FEMP Support: Technical review of proposed conservation measures.

By FY 2000, the number of utility incentive projects at Federal sites is expected to increase significantly as more utilities seek to provide better services to their large Federal customers as the restructuring of the industry unfolds. This will increase the level of requests from agencies to evaluate and implement projects. In response, program activities will focus on getting agencies to better utilize existing or new utility Resource Centers for direct project support, and also provide cost-reimbursable services through the FSN to support agencies in their utility-related contracting needs. As states implement retail competition, the program will evaluate emerging opportunities within the restructured utility industry so agencies will be aware of new utility services, which may range from incentives to loans for energy retrofit or new construction services.

Special Projects. FEMP may also provide a limited amount of financial assistance that is specifically directed to increasing the visibility, and encouraging the early adoption, of selected energy products or services whose widespread application would likely have a strong impact on Federal energy savings. Those are instances where the provision of a small amount of financial assistance to launch a project can demonstrate

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sufficient leadership to overcome initial resistance of agency managers to try a new technology, despite its excellent energy savings potential. Thus, this approach is designed to promote and expedite the introduction of products and services into Federal sector use; for example, an emerging technology, such as the sulfur lamp, that has recently been developed by another program in the Office of Energy Efficiency and Renewable Energy.

TECHNICAL GUIDANCE AND ASSISTANCE: FINDING ENERGY SAVINGS OPPORTUNITIES FOR INVESTMENT IN THE BEST PROJECTS

The Technical Guidance and Assistance (TA) program is at the center of FEMP's core activities. The aim of the program is to help ensure that Federal personnel have the highest level of technical competence to identify and implement sound and cost-effective energy efficiency, water conservation, and renewable energy technology projects at their facilities. Federal facility managers have many choices related to new building construction, renovations, and the purchasing of products. The TA program provides them with the technical information, resources, and training to make those decisions wisely. All TA activities support these efforts.

The TA program operates on both a broad distribution of technical resources to all agencies and on a targeted-projects, facility-specific basis, with each of these two aspects of the program feeding into and enhancing the other. The broad dissemination of technical resources provided to agencies include training and technical information, such as Federal Technology Alerts and Federal Procurement Challenge information; targeted projects include SAVEnergy audit, and project design assistance for energy efficiency, renewable energy, and water conservation projects.

Technical Resources. The technical resources are designed to build a broad foundation of knowledge that contribute to the general capacity to achieve energy savings.

Technical Information and Tools. Technical information and decision-making tools will continue to be provided. This technical information will help agencies make the most energy efficient and life-cycle cost effective decisions when spending resources that affect energy. FEMP provides technical capabilities and software tools to evaluate energy projects quickly, in a fuel neutral analysis, to identify the most life-cycle cost-effective projects in a facility. Similarly, through new technology demonstrations, FEMP partners with industry and other agencies to evaluate new, cost-effective, energy efficient, U.S.-manufactured technologies that are not yet widely used in the Federal sector. FEMP is partnering with other DOE EERE programs, such as the Motor Challenge Program, to apply those programs to Federal customers and to bring the many opportunities of the Federal Sector to those programs.

Training. As part of our overall emphasis on cost-recovery and leveraging resources, FEMP is exploring new ways to maintain quality training for agencies at reduced funding levels, by charging tuition, empowering self-supporting "DOE-Qualified Instructors," and expanding our

I. Mission Supporting Goals and Objectives: FEDERAL ENERGY MANAGEMENT PROGRAM (Cont'd)

access to students by using teleconference training and self-paced computer and Web-based multimedia training packages through partnering with other agencies. In addition, we are working with utilities and other non-government partners to provide training, information, and tools at regionally-based Resource Centers that use FEMP materials and the partners' human resources.

Federal Procurement Challenge. Energy efficient procurement uses the Government's buying power -- at least \$12 to 15 billion in annual purchases of energy and water-consuming products -- to support sound Federal purchasing practices and speed the commercialization of cost-effective new technologies that save energy and water. The Federal Procurement Challenge is a keystone activity in this effort. The core program's Procurement Challenge program makes two-page recommendations about product energy efficiency levels that can leverage energy savings from all of an agency's purchases of many products. These products range from commercial-grade electric chillers to shower heads and office equipment. For example, the Army Corps of Engineers has revised many of its guide specifications to ensure that only high efficiency equipment that meets FEMP recommended levels is purchased and installed in all Corps projects. This change leverages a portion of the almost \$3 billion the military plans to spend in FY 1999 on new construction and renovation projects. FEMP will assist this agency with specification writing, preparing the solicitation, and in finding other purchasing partners to attract substantive proposals.

Targeted Projects. Targeted projects serve as practical examples to the rest of the Federal sector, providing an opportunity to apply new technologies and practices in the real world of budget constraints, contract requirements, and competing demands. A particularly important feature of many targeted projects is that they can serve to motivate interest in the Super ESPCs, by providing an example of the energy savings that are possible in different types of facilities and circumstances. Targeted projects provide a valuable source of new technical information, validated by agency experience, and contribute practical information about how various approaches play out under a variety of actual conditions. FEMP then disseminates these lessons broadly by producing case studies on these projects and by showcasing them as examples for their agency and other Federal facilities. The result is a generally enriched base of knowledge about the latest and best information and techniques and to that base access by agency managers.

SAVEnergy Program. The SAVEnergy program targets those sites with the greatest opportunities through a prescreening process, then develops a SAVEnergy Action Plan to carry forward typical audit data and analysis into cost-saving energy and water projects. The Program emphasizes providing the necessary information to turn the audit into a Super ESPC delivery order.

Design Assistance and Renewable Energy. Design or project assistance ranges from identifying the best opportunities through feasibility studies, design reviews, and technical specification recommendations to suggestions for funding. This area is also the central focus within FEMP for the expansion of cost-effective renewable energy use within the Federal sector. The Federal sector has the world's broadest range of market niches for remote power from orbiting satellites and signal buoys in the ocean to isolated sites for Department of Defense and National Parks. Some of these remote locations have already taken advantage of solar and other forms of renewable energy, but many more remain where renewable energy is cost effective now, and provides other values such as silent operation and reduced fuel spill risks. FEMP is

I. Mission Supporting Goals and Objectives: FEDERAL ENERGY MANAGEMENT PROGRAM (Cont'd)

working to find more of these niches where solar and other renewables make sense, economically and environmentally and for agency mission purposes. The program has participated directly in the implementation of cost-effective solar projects with the National Park Service; the Federal Bureau of Prisons; the General Services Administration; the Departments of Defense; the Interior; Transportation; and other agencies.

Water Savings. Project assistance also focuses on efforts to screen for water savings and renewable energy opportunities. The program helps reduce water use comprehensively as required by EPAct. Water efforts include identifying Federal customers' technical and educational needs, deploying of tools and training to meet those needs, and facilitating of projects that will demonstrate and measure water conservation potential and transfer that knowledge to other Federal sites. The water program is closely linked with Super ESPC, in which energy cost savings are to be achieved, to move water conservation opportunities to actual project installation.

The Targeted Projects program area also intends to work with the FEMP Service Network to provide reimbursable services for agencies who want to work with a mix of FEMP technical resources on projects that are not alternatively financed. For example, for a new building that has funding, an agency may want advice on the best new window technologies to consider, and whether a fuel cell is cost-effective. These resources would be provided from different laboratories and contractor support, and would be best served from the FSN.

PLANNING, REPORTING AND EVALUATION: SYSTEMS TO IMPROVE PROGRAM MANAGEMENT AND PERFORMANCE

Many changes have taken place since the Energy Policy Act of 1992 and the Executive Orders that empower FEMP took effect. Federal appropriations for agency energy projects have been all but eliminated, the electricity industry has begun a profound restructuring, and research and development efforts have developed impressive new energy-saving technologies. These and other issues pose significant challenges for Federal facility managers who want to implement energy efficiency improvements. In short, the context in which the Federal government must attain its goals, and FEMP and must provide leadership, is vastly different than it was only a few years ago.

FEMP's response has been to develop innovative approaches to address these issues, with the goal of building sufficient capacity in agencies to make good energy decisions now and in the years to come. For example, we provide comprehensive and up-to-date technical information on the energy products available for Federal purchase, thus strengthening their ability to use the procurement system effectively, and we have streamlined the processes to make capital energy investments through the development of the Super ESPCs. These and other FEMP actions, coupled with our emphasis on cost recovery for our services, have created a highly cost-effective program and have greatly enhanced the ability of agencies to carry out their energy-saving responsibilities.

FEMP conducts its planning, reporting, and evaluating activities within an overall strategic management system, which is designed to ensure that our programs and innovative approaches are developed and operated in an integrated manner. The system enables us to understand and

I. Mission Supporting Goals and Objectives: FEDERAL ENERGY MANAGEMENT PROGRAM (Cont'd)

describe how all aspects of the program fit together and how they contribute to goal attainment. We use a business and multiyear planning process that articulates a clear roadmap for the future; we are able to define clear expectations for the outcomes of our activities and budgeted investments; and we have good ways of measuring both specific program performance and overall program effectiveness. We accomplish this within the framework of the Government Performance and Results Act.

FEMP is working hard to institutionalize the concept and practice of energy efficiency so that facility management practices that maximize energy efficiency become the standard way of doing business. In FY 2000, FEMP will accomplish this in a variety of ways:

- Conducting analytic work on important emerging issues;
- Improving the precision of our performance and energy savings metrics;
- Using pilot projects to test new ideas and new ways of implementing programs and sharing lessons learned with other agencies, State and local governments, and the private sector;
- Expanding active agency participation in a wide range of programs;
- Strengthening the effectiveness of our partnerships with industry, utilities and states;
- Evaluating existing programs to find the most effective and efficient, cost-saving projects and practices to transfer to others for implementation;
- Refining our regional delivery of information and technical assistance services and creating new ways to reach facility managers;
- Making more effective use of the Federal Interagency Energy Policy Committee (656 Committee) and Interagency Energy Task Force;
- Continuing to develop outreach approaches that can be easily tailored to individual agency needs;
- Working with agencies on “green power” procurement policy and implementation and other emerging policy issues; and
- Assessing program results and updating our planning accordingly.
- Completing three additional nationwide technology Super ESPCs for use by all agencies, bringing the total number of Technology Super ESPCs to nine.

II. A. Funding Table: FEDERAL ENERGY MANAGEMENT PROGRAM

Program Activity	FY 1998 Enacted	FY 1999 Enacted	FY 2000 Request	\$ Change	% Change
Project Financing	\$ 7,900	\$ 9,864	\$ 13,364	\$+3,500	+35.5%
Technical Guidance and Assistance	6,300	7,454	10,204	+2,750	+36.9%
Planning, Reporting, and Evaluation	3,800	4,400	5,400	+1,000	+22.7%
Capital Equipment	0	0	0	0	0.0%
Program Direction	1,800	2,100	2,900	+800	+38.1%
Total, Federal Energy Management Program .	<u>\$ 19,800</u>	<u>\$ 23,818</u>	<u>\$ 31,868</u>	<u>\$+8,050</u>	<u>+33.8%</u>

II. B. Laboratory and Facility Funding Table: FEDERAL ENERGY MANAGEMENT PROGRAM

Program Activity	FY 1998 Enacted	FY 1999 Enacted	FY 2000 Request	\$ Change	% Change
Lawrence Berkeley National Laboratory	\$ 1,959	\$ 2,432	\$ 3,040	\$+608	+25.0%
National Renewable Energy Laboratory	6,094	8,064	10,064	+2,000	+24.8%
Oak Ridge National Laboratory	2,228	2,684	3,354	+670	+25.0%
Pacific Northwest National Laboratory	2,480	2,488	3,110	+622	+25.0%
Sandia National Laboratory	147	155	160	+5	+3.2%
All Others	6,892	7,995	12,140	+4,145	+51.8%
Total, Federal Energy Management Program .	<u>\$ 19,800</u>	<u>\$ 23,818</u>	<u>\$ 31,868</u>	<u>\$ +8,050</u>	<u>+33.8%</u>

III. Performance Summary: (New BA in thousands of dollars)

Activity	FY 1998	FY 1999	FY 2000
Federal Energy Management Program			
Project Financing	<p>Developed and awarded six all-purpose regional Super Energy Savings Performance Contracts for use by all agencies as a means of expediting private sector partnerships in financing and implementing energy and cost savings. The regions include Western, Southeast, Central/Mid-West, and Northeast/Mid-Atlantic. Also, developed three technology specific super ESPCs for: Photovoltaics, Solar Thermal, and Solar Ventilation pre-heat. These contracts will provide a contracting mechanism to cover all geographic regions and enable facilities to take advantage of all life-cycle, cost effective energy efficient, solar and renewable technologies. Continued to provide guidance and training on the establishment and use of Energy Savings Performance Contracts by other agencies and demonstrated their successful use at DOE facilities. Customized workshops to meet ESPC training needs of an agency or</p>	<p>Update and maintain qualified list of energy service companies, program evaluation, identification of barriers, and program management support, including energy service companies and Government performance reviews.</p> <p>Support other technical and management financing activities such as tracking Federal agency project development and execution and maintaining records of ESPC project activities and their effectiveness.</p> <p>Based on results of the Federal energy market assessment, target agencies that have limited energy management organizational support but have significant targets for energy and cost savings.</p> <p>Develop an additional 3 to 4 Technology-Specific ESPCs. Increase direct project financing to no more than \$1.0 million for the most promising technologies.</p>	<p>Continue support for updating and maintaining qualified list of energy service companies, program evaluation, identification of barriers, and program management support including energy service companies and government performance reviews.</p> <p>Review the Federal energy market strategy and modify based on lessons learned and additional information available.</p> <p>Increase marketing and outreach materials that will continue to target Federal agency energy management by expanding information, education, and hands-on activities specifically for project financing efforts.</p> <p>Achieve 20% building energy reduction compared to 1985 energy use baseline through alternative financing methods. Track energy savings and costs as well as</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

<u>Activity</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>
Project Financing (Cont'd)	<p>regional contract needs. The FY 1998 training schedule included five regional and two customized workshops resulting in the training of approximately 210 agency personnel. Provided information, guidance, and assistance to all Federal organizations on the use of utility incentives as the utility industry evolves to a more competitive environment. Continued to maintain and improve the effectiveness of the Federal Utility Working Group Partnership and expand utility resource centers to assist Federal customers in developing energy-saving projects. Provided direct project financing for the most promising technologies, financing, and contracting mechanisms to speed introduction. Provided technical support to identify barriers to the use of unique financing methods, including the use of private financing for water conservation and mobility energy efficiency improvements and for solar and renewable energy projects.</p> <p>Together these efforts created over \$5 billion in Federal energy savings</p>	<p>Provide improved utility incentives and restructure training. Provide support for developing guidance in the purchase of electricity in a deregulating market. Provide technical assistance in the development of utility incentive project. Develop material and effective delivery systems to support the implementation of an aggressive outreach program for utilities and ESPCs.</p> <p>Strengthen the FEMP Service Network, an organizational mechanism to coordinate FEMP support to the field, to administer funds. Under the Super ESPC, delivery orders valued at \$250 million will be placed.</p> <p>The training plan for FY 1999 includes eight regional and four customized workshops. Providing training for approximately 360 personnel in all regions. TeleFEMP broadcast on Super ESPCs (estimated to reach 3000 people). Customize workshops to meet the ESPC training needs of an agency or regional contract needs. (NREL,</p>	<p>leveraged dollars from private sector investments.</p> <p>Develop three additional Technology Specific Super ESPCs (with focus on renewable energy technologies such as Biomass, and wind and Gas Cooling), bringing the number of technology Super ESPCs to nine.</p> <p>Support efforts to expand use of ESPCs to water conservation projects and energy-efficiency projects for Federal mobile equipment and leased space.</p> <p>Initiate use of ESPCs as a result of new legislative authority being proposed for water conservation projects and energy-efficiency projects for Federal mobile equipment and leased space.</p> <p>Continue to maintain and improve the effectiveness of the Federal Utility Working Group Partnership and expand utility resource centers to assist Federal customers in developing energy-saving projects. Through the FEMP Service Network, increase the pace of</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
Project Financing (Cont'd)	<p>contracts, paid from delivered energy cost savings. There is a substantial increase in speed at which the Super ESPCs are put in place, ensuring that contracts for all regions of the country are solicited or awarded by the end of FY 1998. Increase the routine use of renewable energy technologies at Federal facilities through the completion of one government-wide solar technology Super ESPC. (NREL, PNNL, LBNL, ORNL, McNeil Technologies, Inc.) (\$7,900)</p>	<p>PNNL, LBNL, ORNL, McNeil Technologies, Inc.) (\$9,864)</p>	<p>awarding Super ESPC delivery orders for Federal energy projects, which includes identifying and screening projects, preparing delivery orders and site data packages, evaluating proposals, reviewing and documenting projects.</p>
	<p>Grants to states under the Special Project State Grants program provide local support to Federal sites in preparation for participation in FEMP Super-ESPCs, and transfer FEMP alternative finance modeling to state and local government. These funds are used in combination</p>	<p>Grants to states under the Special Project State Grants program provide local support to Federal sites in preparation for participation in FEMP Super-ESPCs, and transfer FEMP alternative finance modeling to state and local government. An additional \$200,000 provided in support of Federal site-based</p>	<p>Under the Super ESPC, delivery orders valued at \$400 million will be placed.</p> <p>Continue to prepare training materials and conduct workshops to help prepare agency technical, contracting, budget, legal, administration, and management personnel to use the Super ESPC contracting vehicle.</p> <p>Approximately 360 personnel in all regions will be trained. (\$13,364)</p>
			<p>Grants to states under the Special Project State Grants program provide local support to Federal sites in preparation for participation in FEMP Super-ESPCs, and transfer FEMP alternative finance modeling to state and local government. These funds are used in combination</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
Project Financing (Cont'd)	<p>with Technical Assistance and Planning, Reporting and Evaluation funds. Grants of \$455,000 were competitively awarded. These funds are included in the total Project Financing budget of \$7,900,000.</p> <p>FEMP recovered \$180,000 from other agencies for reimbursement of its ESPC support efforts.</p>	<p>technical services in support of alternative finance FY 1999 only. These funds are used in combination with Technical Assistance and Planning, Reporting and Evaluation funds. Grants of \$655,000 are planned for competitive award. These funds are included in the total Project Financing budget of \$9,864,000.</p> <p>FEMP estimates \$1,200,000 in recovered funds from other agencies.</p>	<p>with Technical Assistance and Planning, Reporting and Evaluation funds. Grants of \$655,000 are planned for competitive award. These funds are included in the total Project Financing budget of \$13,364,000.</p> <p>FEMP estimates \$3,500,000 in recovered funds from other agencies.</p>
	\$7,900	\$9,864	\$13,364
Technical Guidance and Assistance	<p>Technical Assistance Program continued to provide and improve a range of assistance to specific projects in Federal agencies on energy efficiency, renewable energy, and water conservation. Provided approximately 65 SAVEnergy audits and action plans at targeted sites with the greatest opportunities.</p>	<p>Train more than 2600 students through additional sessions of the existing courses, as well as continued expansion into new training media and subjects. The new telecourse format piloted in 1997 will continue to be expanded, and additional subjects will be converted to the new format.</p>	<p>Provide and improve training, technical information, and tools to support more projects than FEMP can assist directly. Train 3200 students in energy-efficient technologies through classroom and satellite courses and other cost effective delivery mechanisms.</p>
Technical Guidance and Assistance (Cont'd)	<p>Continued project assistance ranging from feasibility studies, design reviews, and technical specifications</p>	<p>Provide and improve training, technical information, and tools to support more projects than FEMP</p>	<p>Publish 25 technical information products. (Federal Technology</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
<p>Technical Guidance and Assistance (Cont'd)</p>	<p>to funding recommendations. Improved training, technical information, and tools to support more projects than FEMP can assist directly. Provided training in lighting, software tools, and renewable technologies. Facilitated agency purchases of the most energy-efficient and water-conserving products through barrier reduction, policy guidance, and product recommendation. Developed and provided software and other tools that help agencies evaluate energy and water projects. Evaluated new, cost-effective energy efficient, U.S.- manufactured technologies that are not widely used in the Federal sector; share evaluation with Federal users. (NREL, LBNL, PNNL, ORNL, ORISE, McNeil Technologies, Inc.) (\$6,300)</p>	<p>can assist directly. Provide training in energy-efficient technologies through classroom and satellite courses and other cost-effective delivery mechanisms.</p> <p>Publish 16 technical information products. (Federal Technology Alerts from the New Technology Demonstration Program, and Product Recommendations from the Procurement Challenge Program and others.)</p> <p>Help agencies buy the most energy-efficient and water-conserving products through barrier reduction, policy guidance, and product recommendations.</p> <p>Maintain and update essential software programs such as Building Life Cycle Cost (BLCC), which is the basis for all Federal managers to assess the cost-effectiveness of projects.</p> <p>Develop and provide software and other tools that help agencies screen for energy and water-saving projects. Evaluate new, cost-</p>	<p>Alerts, Product Recommendations, and others.)</p> <p>Through Procurement Challenge, help agencies procure the most energy-efficient and water-conserving products through barrier reduction, policy guidance, and product recommendation, including new recommendations and a pilot bulk purchase effort.</p> <p>Develop and provide software and other tools that help agencies screen for energy and water-saving projects. Evaluate new, cost-effective energy efficient, U.S.- manufactured technologies that are not widely used in the Federal sector; and share evaluation with Federal users.</p> <p>Targeted Projects. Assist 60 energy efficiency and renewable projects (through audits and design assistance) and provide supporting documentation for replication.</p> <p>Provide SAVEnergy audits and action plans at sites targeted to lead to alternative financing. Provide</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
Technical Guidance and Assistance (Cont'd)		effective energy efficient, U.S.-manufactured technologies that are not widely used in the Federal sector; share evaluation with Federal users.	project assistance ranging from feasibility studies, design reviews, and technical specifications to funding recommendations.
		Increase the distribution of Internet-based and hard copy product design information materials such as lighting design manuals and software.	Include efforts to use biomass co-firing at Federal facilities.
		Targeted Projects. A specific target of the FY 1999 request is to target at least one demonstration of combined heat and power at a Federal facility.	Support combined heat and power activities, to include three demonstrations, two at DOE facilities and one at another Federal facility. Technical information will be developed to help other agencies use combined heat and power.
		Assist 41 energy efficiency and renewable projects (through audits and design assistance) and provide supporting documentation for replication.	Support program to assist Federal agencies in improving energy efficiency of windows in Federal facilities. (NREL, PNNL, LBNL, ORNL, SNL, ORISE, McNeil Technologies, Asper Systems) (\$10,204)
		Provide SAVEnergy audits and action plans at sites targeted to lead to alternative financing. Provide project assistance ranging from feasibility studies, design reviews, technical specifications to funding recommendations.	

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
Technical Guidance and Assistance (Cont'd)	<p>Grants to states under the Special Project State Grants program, provide local direct technical assistance to Federal sites. These funds are used in combination with Project Financing, Planning, Reporting, and Evaluation funds. Grants of \$200,000 were competitively awarded. These fund are included in the total Technical Guidance and Assistance.</p>	<p>Specifically target new tasks that reduce carbon use in the Federal sector for low or no incremental cost.</p> <p>Increase support to Federal facilities participating in the Presidential initiatives and other cost-effective solar technology purchases by providing streamlined access to solar technologies.</p> <p>(NREL, PNNL, LBNL, ORISE, SNL, McNeil Technologies, Inc.) (\$7,454)</p> <p>Grants to states under the Special Project State Grants program, provide local direct technical assistance to Federal sites. These funds are used in combination with Project Financing, Planning, Reporting, and Evaluation funds. Competitively award \$200,000 in grants. These funds are included in the total Technical Guidance and Assistance.</p>	<p>Grants to states under the Special Project State Grants program, provide local direct technical assistance to Federal sites. These funds are used in combination with Project Financing, Planning, Reporting, and Evaluation funds. Competitively award \$200,000 in grants. These funds are included in the total Technical Guidance and Assistance.</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
	\$6,300	\$7,454	\$10,204
Planning, Reporting, and Evaluation	<p>Provided interagency technical support coordination and management for developing and implementing energy efficiency, water conservation and renewable energy projects in the field.</p> <p>Performed policy analyses of key issues related to Federal energy and water conservation, and renewable energy use, including policy impacts of energy market changes and Federal energy efficiency improvements as a contributor to environmental and economic benefits and goals. Developed databases of Federal facilities, energy consumption and costs, facility managers, energy efficiency, solar and other renewables, and water conservation projects. These databases are used to fulfill mandated reporting requirements.</p>	<p>Increase technical support to the Interagency Energy Management Task Force, the Federal Interagency Energy Policy Committee (656 Committee), and Federal Energy Awards Program. Provide interagency coordination and management for developing and implementing energy efficiency, water conservation and renewable energy projects with emphasis on projects in the field. Increase support to agencies through a series of regionally focussed meetings.</p>	<p>Support core program activities, such as data collection and reporting for the FEMP Annual Report, which consolidates the energy use data of the Federal government and a variety of Congressional and Presidential reports required by law, Executive Order, GAO, OMB and Congressional inquiry.</p>
Planning, Reporting, and Evaluation (Cont'd)	<p>Supported agencies in the delivery of an effective technology transfer program to ensure that Federal energy reduction goals are clearly understood and that FEMP's programs are able to be implemented by Federal energy</p>	<p>Evaluate Federal power purchasing as a customer and aggregation and solicitation methods for purchasing power in line with the emerging deregulation of electricity.</p> <p>Increase support of policy analyses of key issues related to Federal energy and water conservation and renewable energy use. Review policy changes to address impacts of energy market changes, e.g., electric utility restructuring and "green" power procurement and Federal</p>	<p>Continues support to the Interagency Energy Management Task Force, the 656 Committee, the Federal Energy Awards Program, and regionally focussed meetings to bring together agency energy managers, procurement officials, and energy product and service suppliers.</p> <p>Adjust FEMP management structure and policies to capture a growing portion of the multi-billion dollar market for Super ESPC delivery orders. Support development of policy and background analyses supporting the use of ESPC-type financing approaches for Federal mobility energy, water conservation</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
Planning, Reporting, and Evaluation (Cont'd)	<p>managers and Federal employers. The theme of the information campaign centered around the power of individual actions in increasing energy efficiency, i.e., individual actions make a difference. The campaign included the use of multimedia educational tools, teleconferences, resource guides, action kits, and building the FEMP network of partners. The Regional Energy Action Project team of experts in six regions (Seattle, Chicago, Denver, Boston, Atlanta, and Philadelphia) provided ongoing support to FEMP's hands-on highly responsive, and customer-oriented new way of doing business. They helped Federal energy managers in the field identify efficiency improvements in their buildings and operations and ensured the delivery of a full range of regional technical, financial, outreach and related services. This approach resulted in 20 efficiency projects through the Regional teams. (PNNL, NREL, ORNL, McNeil Technologies, Inc.) (\$3,800)</p>	<p>energy efficiency improvements as a contributor to environmental and economic benefits and goals.</p> <p>Evaluate resource support needs to assist agencies through ESPCs and other contract vehicles which can best deliver early energy savings while providing resources to those agencies which have opportunities but lack the capacity to take advantage of FEMP's contracting and assistance programs. Assess strategies to approach Federal agencies to maximize early successes with mobility energy efficiency and leased space ESPCs and analyzes potential in these markets.</p> <p>Continue to enhance databases of Federal facilities, energy consumption and costs, facility managers, energy efficiency, solar and other renewables and water conservation projects to fulfill mandated reporting requirements. The databases support reporting of energy efficiency impacts and perform analyses of Federal carbon emissions and efficiency-related</p>	<p>and projects, and track Super ESPC delivery order activity. Support analyses and planning activities addressing "green" power purchases by Federal agencies and establishing Federal Renewable Portfolio Standard. Develop new and amend existing, policy guidance to support FEMP activities as new projects are initiated under fee for service agreement with outside agencies.</p> <p>Begin to develop a Web-based database that will track and provide information on Federal facilities, energy consumption and costs, facility managers, energy efficiency, solar and other renewables and water conservation projects to fulfill mandated reporting requirements. The database will support reporting of energy efficiency impacts and perform analyses of Federal carbon emissions and efficiency-related carbon reductions.</p> <p>Support continuing an aggressive energy awareness campaign to reduce energy use by targeting trade journals and other media to reach</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
Planning, Reporting, and Evaluation (Cont'd)		<p>carbon reductions. Make changes to FEMP database based on input from FY 1998 assessment. Begin planning Web-site database.</p> <p>Deliver effective corporate technology transfer programs to ensure that Federal energy reduction goals are clearly understood and that FEMP's programs are able to be implemented by Federal energy managers and Federal employers. The "You Have The Power" campaign includes the use of multimedia educational tools, teleconferences, resources guides, action kits, and building the FEMP network of partners.</p> <p>The Regional Energy Action Project team of experts in six regions (Seattle, Chicago, Denver, Boston, Atlanta, and Philadelphia) will support FEMP's hands-on, highly responsive, and customer-oriented new way of doing business. They support Federal energy managers in the field identify efficiency improvements in their buildings and operations and ensure the delivery of a full range of regional technical,</p>	<p>Federal employees who manage energy efficiency programs.</p> <p>Review FEMP corporate outreach activities that were designed primarily to provide motivational and case study support for energy management and water conservation activities across the Federal sector. Modify these materials based on lessons learned from materials used in FY 1999.</p> <p>In accordance with legislation, FEMP information products are made available to all public and private sector organizations that request them.</p> <p>Support for printing costs and continuous updates of the FEMP Web site and other materials to maintain uniform communications material across the Federal sector. (\$5,400)</p>

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
Planning, Reporting, and Evaluation (Cont'd)		<p>financial, outreach and related services. This approach will result in 50 efficiency projects through the Regional teams.</p> <p>Continue the implementation of recoverable funding. Develop new, and amend existing, policy guidance to support FEMP activities as new projects are initiated under fee for service agreement with outside agencies. Implement initial processes for handling questions, issues, and work assignments for operating systems.</p> <p>Evaluate methods to lower the cost of financing energy efficiency measures through programs to lower interest rates for qualifying projects.</p> <p>Expand corporate outreach activities, primarily to provide motivational and case study information to help with marketing efforts for ESPC delivery orders.</p> <p>Track energy savings relative to ESPC contracts.</p>	

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
	<p>Grants to states under the Special Project State Grants program encourage intergovernmental cooperation, knowledge sharing on alternative financing and improving government energy efficiency, coordination with EERE Regional Support Offices and interstate peer assistance. These funds are used in combination with Finance and Technical Assistance funds. Grants of \$95,000 were competitively awarded in FY 1998. These funds are included in the total Planning, Reporting and Evaluation budget of \$3,800,000.</p>	<p>(PNNL, NREL, ORNL, McNeil Technologies, Inc.) (\$4,400)</p> <p>Grants to states under the Special Project State Grants program encourage intergovernmental cooperation and knowledge sharing on alternative financing and improving government energy efficiency, coordination with EERE Regional Support Offices and interstate peer assistance. These funds are used in combination with Finance and Technical Assistance funds. Grants of \$95,000 are planned for competitive award. These funds are included in the total Planning, Reporting and Evaluation budget of \$4,400,000.</p>	<p>Grants to states under the Special Project State Grants program encourage intergovernmental cooperation and knowledge sharing on alternative financing and improving government energy efficiency, coordination with EERE Regional Support Offices and interstate peer assistance. These funds are used in combination with Finance and Technical Assistance funds. Grants of \$95,000 are planned for competitive award. These funds are included in the total Planning, Reporting and Evaluation budget of \$5,400,000.</p>
	\$3,800	\$4,400	\$5,400

Capital Equipment

Limited capital equipment will be acquired primarily to support the research and development activities described above. These purchases will be made from operating expense funds according to

Limited capital equipment will be acquired primarily to support the research and development activities described above. These purchases will be made from operating expense funds according to

No purchases planned. (\$0)

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
	established reprogramming guidelines. (\$0)	established reprogramming guidelines. (\$0)	
	\$0	\$0	\$0

Program Direction	The following is a breakdown of the funding by Object Class:	The following is a breakdown of the funding by Object Class:	The following is a breakdown of the funding by Object Class:																								
	<table border="0"> <tr> <td>11.9 Personnel compensation</td> <td style="text-align: right;">\$1,419</td> </tr> <tr> <td>12.1 Civilian personnel benefits</td> <td style="text-align: right;">\$271</td> </tr> <tr> <td>21.0 Travel and transportation of persons</td> <td style="text-align: right;">\$91</td> </tr> <tr> <td>25.2 Other services</td> <td style="text-align: right;">\$19</td> </tr> </table>	11.9 Personnel compensation	\$1,419	12.1 Civilian personnel benefits	\$271	21.0 Travel and transportation of persons	\$91	25.2 Other services	\$19	<table border="0"> <tr> <td>11.9 Personnel compensation</td> <td style="text-align: right;">\$1,744</td> </tr> <tr> <td>12.1 Civilian personnel benefits</td> <td style="text-align: right;">\$436</td> </tr> <tr> <td>21.0 Travel and transportation of persons</td> <td style="text-align: right;">\$79</td> </tr> <tr> <td>25.2 Other services</td> <td style="text-align: right;">\$0</td> </tr> </table>	11.9 Personnel compensation	\$1,744	12.1 Civilian personnel benefits	\$436	21.0 Travel and transportation of persons	\$79	25.2 Other services	\$0	<table border="0"> <tr> <td>11.9 Personnel compensation</td> <td style="text-align: right;">\$1,895</td> </tr> <tr> <td>12.1 Civilian personnel benefits</td> <td style="text-align: right;">\$475</td> </tr> <tr> <td>21.0 Travel and transportation of persons</td> <td style="text-align: right;">\$175</td> </tr> <tr> <td>25.2 Other services</td> <td style="text-align: right;">\$355</td> </tr> </table>	11.9 Personnel compensation	\$1,895	12.1 Civilian personnel benefits	\$475	21.0 Travel and transportation of persons	\$175	25.2 Other services	\$355
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	<p>Provide salaries, benefits, travel support, and realignment costs for 22 FTEs to manage the Federal Energy Management Program under the Energy Policy Act of 1992. The funding in other services includes training, employee incentive awards, library services, and a small contingency. (\$1,800)</p>	<p>Provide salaries, benefits, travel support, and realignment costs for 27 FTEs to manage the Federal Energy Management Program under the Energy Policy Act of 1992. The funding in other services includes training, employee incentive awards, library services, and a small contingency. Additionally, a total of \$159,000 in FY1998 unobligated carryovers will be used for program direction in FY1999. With authority granted by Congress in the Omnibus Bill, P.L. 105-277 signed by the President October 21, 1998, additional limited appointment personnel are envisioned to support</p>	<p>Provide for salaries, benefits, and travel for 26 FTEs to manage and support the FEMP program activities. Particular emphasis is to increasingly dedicate these resources toward Super ESPC delivery order development and reimbursable activities. With authority granted by Congress in the Omnibus Bill, P.L. 105-277 signed by the President October 21, 1998, additional limited appointment personnel are envisioned to support project financing and technical assistance programs at HQ, GFO and RSOs to be paid on a reimbursable basis. The FY 2000 Request for Program</p>																								
Program Direction (Cont'd)																											

III. Performance Summary: Federal Energy Management Program (Cont'd)

Activity	FY 1998	FY 1999	FY 2000
		project financing and technical assistance programs at HQ, GFO and RSOs to be paid on a reimbursable basis. The FY 2000 Request for Program Direction provides for staffing adjustments resulting from Workforce for the 21st Century. (\$2,100)	Direction provides for staffing adjustments resulting from Workforce for the 21st Century. (\$2,900)
	\$1,800	\$2,100	\$2,900
Federal Energy Management Program Total	\$19,800	\$23,818	\$31,868