(Dollars in Thousands)

# OFFICE OF FEDERAL ENERGY MANAGEMENT PROGRAMS PROGRAM MISSION

*Mission:* The Office of Federal Energy Management Programs (FEMP) works to increase the energy security and decrease the environmental impact of government by advancing energy efficiency and water conservation, promoting the use of distributed and renewable energy, and improving utility management decisions at Federal sites.

*Context:* The Federal government is the single largest energy consumer in the nation, using 1.01 quads in its buildings, operations, and vehicles. In FY 2000, the Federal government spent \$4.0 billion on energy for its 500,000 buildings (\$3.4 billion for standard buildings; \$.06 billion for energy intensive facilities) and more than \$3 billion on energy for its vehicles and equipment. In addition, the Federal government spends as much as \$200 billion annually on energy-using products and services. Through prudent purchasing, the Federal government can influence the development of more energy efficient and renewable products.

With the help of FEMP in leading and coordinating this effort, Federal agencies exhibit leadership by reducing energy use in their facilities through the implementation of energy efficiency projects and smart energy management and operations. According to preliminary data, agencies reduced energy intensity by 23.6% on a Btu per gross square foot basis (i.e. energy intensity) compared to FY 1985.

Strategic Approach: FEMP leverages the technical expertise of DOE's regional offices, national laboratories and other EERE sectors with the financial, project, and operational expertise of private sector partners such as utility and energy service companies. FEMP also leverages university programs in support of initiatives including ALERT teams (Assessment Load Energy Reduction Techniques: these identify low cost and no cost operational energy efficiency measures at federal facilities) to conduct load reduction assessments and Green Energy Parks (this is a partnership between EERE and the National Park Service that implements energy efficiency and renewable energy technologies while educating the visiting public about these technologies).

All of FEMP's Super Energy Savings Performance Contracts (Super ESPCs) have been pre-competed, providing the benefits of competition, in a greatly condensed timeframe. Agencies participating in the ESPC program reimburse FEMP for related expenses; these funds in turn are used to support further development of energy and cost-saving projects under the ESPC program.

Management allocates funds in a number of program areas through the use of project calls which rank funding requests against criteria

including ability to cost share, replication potential, impact on energy consumption, and implementation feasibility. FEMP's management activities include reporting on agency performance against Congressional and Administration goals, as well as program and project management oversight of FEMP's extensive contractor base.

GPRA:

Metric – Federal Buildings

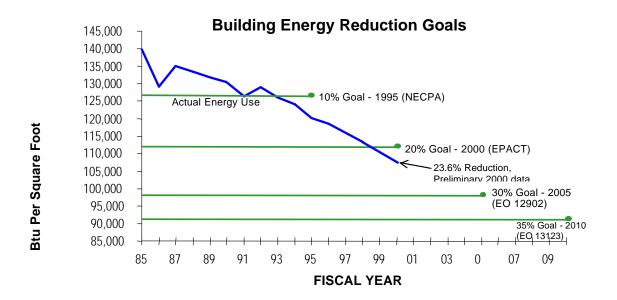
	2010	2020
Total Primary Energy Displaced (Quads)	0.04	0.06
Total Cost Savings in Year (2002 \$ billions)	0.2	0.3
Carbon Equivalent Emissions Displaced (MMTCE)	0.7	1.1

Source: GPRA 2003 EERE Database. Numbers in the above table represent the projected annual benefits in 2005, 2010, and 2020 based on the FY2003 funding request, assuming all program goals are met.

Note: Program benefit projections are developed through an impact analysis process undertaken annually by EERE, based on assumptions for future energy markets derived from EIA's annual energy outlook. EERE's sectors analyze the impacts their programs will have on energy savings, energy cost savings, and carbon reductions if all program goals are met, and future energy markets develop as expected. A sample of program benefit estimates is externally review by Arthur D. Little.

With FEMP's assistance, the Federal Government reduced its energy intensity at Federal facilities by 20.7 percent in 1999 compared to 1985 levels, achieving the 20 percent reduction goal set by Congress in the Energy Policy Act of 1992 a year ahead of schedule. In 1999 alone, the Federal Government saved almost \$1 billion on its energy bill due in part to energy improvements made since 1985. As illustrated in the graphic below, preliminary data for FY 2000 indicates the Government has reduced its energy intensity in standard buildings by over 23 percent. In order to reach the 35 percent goal in 2010, Federal agencies must reduce their energy use by approximately 60 trillion BTUs.

The Federal government can continue to make substantial progress toward reducing its energy consumption by expanding its use of alternative financing vehicles to fund energy improvements; increasing the procurement of energy efficient technologies; constructing energy efficient buildings; properly operating and maintaining existing facilities; improving load management; and using efficient energy technologies. In addition, the Federal government can help electric system reliability by managing its utility demand and encouraging on-site generation with distributed energy technologies including renewable energy technologies, microturbines, and fuel cells – many of which include combined heat and power systems.



#### **Program Strategic Performance Goal**

ER1-18: The Federal Energy Management Program activities will increase the energy security and reduce the environmental impact of the Federal government by decreasing energy intensity in standard Federal facilities by 30 percent by 2005, relative to 1985 levels.

#### Performance Indicators

- o Standard buildings/facilities: A reduction in gross square foot energy consumption by 30% by 2005 and 35% by 2010, relative to a 1985 base.
- o Industrial, laboratory, research, and other energy-intensive buildings: a 20% reduction by 2005, and 25% by 2010, relative to a 1990 base.
- o Renewable energy use equal to 2.5% of Federal facility electricity consumption by 2005.
- o 2,000 solar energy systems by 2000: 20,000 solar energy systems by 2010
- Implement best management practices for water conservation in 80% of Federal facilities by 2010
- o Reduce greenhouse gas emissions by 30 percent by 2010 compared to 1990

(Dollars in thousands)

#### OFFICE OF FEDERAL ENERGY MANAGEMENT PROGRAMS

#### PROGRAM FUNDING PROFILE

Program Activity	FY 2001 Appropriation		FY 2002 Appropriation		FY 2003 Request		\$ Change	% Change	
Program Activities, Operating Expenses	\$	21,227	\$	18,900	\$	23,425	\$ 4,525	23.9%	
Program Direction, Operating Expenses	\$	4,434	\$	4,400	\$	4,455	\$ 55	1.3%	
TOTAL	\$	25,661	\$	23,300	\$	27,880	\$ 4,580	19.7%	
Summary									
Operating Expenses	\$	25,661	\$	23,300	\$	27,880	\$ 4,580	19.7%	
Total Program		\$25,661 <sup>a</sup>	\$	23,300	\$	27,880	\$ 4,580	19.7%	
Staffing (FTEs)		Actual		Budgeted		Budgeted			
HQ FTEs		27b/		27		27			
Field FTEs (Financed by Other Agencies)		5°		6		6			
Total FTEs		32		33		33			

<sup>&</sup>lt;sup>a</sup>/ Reflects adjustment of \$-57,000 for Omnibus Rescission, P.L. 106-554.
b/ Actual Full-Time Equivalent (FTE) usage is cited for FY 2001 while budgeted staffing numbers are displayed in the FY 2002 and FY 2003 columns. For comparability purposes, budgeted FY 2001 HQ FTE was 32.

<sup>&</sup>lt;sup>c</sup>/ These are the number of estimated limited appointment field personnel to be paid from reimbursed funds, authorized for FEMP's use by Congress in P.L. 105-277.

#### Authorizations:

P.L. 94-163, Energy Policy and Conservation Act

P.L. 94-385, Energy Conservation and Production Act

P.L. 95-619, National Energy Conservation Policy Act

P.L. 100-615, Federal Management Improvement Act

P.L. 102-486, Energy Policy Act

(Dollars in thousands)

#### OFFICE OF FEDERAL ENERGY MANAGEMENT PROGRAMS

#### **SUMMARY OF CHANGES**

	Y 2003 equest
FY 2002 Comparable	\$ 23,300
Non-Discretionary	
- Increase for Federal Pay Raise and Locality Pay	 52
FY 2003 Base	\$ 23,352
Federal Energy Management Program Activities:	
- Project Financing – Slight decrease in project management support to agencies for projects implemented through energy savings performance contracts and utility energy service contracts.	-10
- Technical Guidance and Assistance - Increased funds to support audits, design and implementation assistance for general and renewable projects, training, analytical tools, and communication activities. Expand support for distributed energy resources/combined heat and power projects at Federal facilities. Increase funding for comprehensive assessments to identify peak load reduction opportunities, energy cost management strategies, efficiency improvements, and renewable energy opportunities.	4,042
- Planning, Reporting, and Evaluation - Increase funds to support program reporting and outreach activities	463
- Technical/Program Management Support - Increase support services for project financing, technical assistance, and planning, reporting, and evaluation program efforts.	30
Program Direction:	
- Insignificant increase for staff expenses	 3
FY 2003 Congressional Budget Request	\$ 27,880

(Dollars in Thousands)

#### OFFICE OF FEDERAL ENERGY MANAGEMENT PROGRAMS

#### I. Mission Supporting Goals and Objectives

Management Strategy: FEMP leverages the technical expertise of DOE's regional offices, national laboratories and other EERE sectors with the financial, project, and operational expertise of private sector partners such as utility and energy service companies. FEMP also leverages university programs in support of initiatives including ALERT teams (Assessment Load Energy Reduction Techniques: these identify low cost and no cost operational energy efficiency measures at federal facilities) to conduct load reduction assessments and Green Energy Parks (this is a partnership between EERE and the National Park Service that implements energy efficiency and renewable energy technologies while educating the visiting public about these technologies).

All of FEMP's Super ESPCs have been pre-competed, providing the benefits of competition, in a greatly condensed timeframe. Agencies participating in the ESPC program reimburse FEMP for related expenses; these funds in turn are used to support further development of energy and cost-saving projects under the ESPC program.

FEMP's program evaluation process includes an in-depth customer survey to ensure that the program evolves in a way that is consistent with market and agency needs. Management allocates scarce funds in a number of program areas through the use of project calls which rank funding requests against criteria including ability to cost share, replication potential, impact on energy consumption, and implementation feasibility. FEMP's management activities include reporting on agency performance against Congressional and Administration goals, as well as program and project management oversight of FEMP's extensive contractor base.

#### **Program Strategic Performance Goal**

ER1-18: Increase the energy security and reduce the environmental impact of the Federal government by decreasing energy intensity in standard Federal facilities by 30 percent by 2005, relative to 1985 levels.

#### **Performance Indicators**

- Energy use per gross square foot in standard and energy intensive Federal buildings
- Federal building use of energy produced by renewable resources
- Greenhouse gas emissions attributable to Federal buildings

**Annual Performance Results and Targets** 

FY 2001 Results	FY2002 Target	FY2003 Proposed Target
<ul> <li>Continued efforts to reduce energy intensity in Federal buildings and report the results achieved through the end of FY 1999, towards the goal of achieving a 22 percent reduction by the end of FY 2001 as compared to 1985 energy intensity. Preliminary data suggests that Agencies exceeded this goal a year early, achieving a 23.6 percent reduction in energy in 2000.</li> <li>Made progress toward completing one nationwide biomass technology Super Energy Savings Performance Contract (ESPC) for use by all agencies, bringing the total number</li> </ul>	<ul> <li>Continue efforts to reduce energy intensity in Federal buildings by 24 percent by the end of FY 2002 as compared to 1985 energy use.** Report the results achieved through the end of FY 2000.</li> <li>Support the Federal goal of obtaining 2.5 percent of Federal facilities' electricity needs from renewable energy sources by 2005.</li> </ul>	Provide technical and design assistance for 70 energy efficiency, renewable energy, and water conservation projects; 10 will be large-scale distributed energy resources and combined heat and power projects. Report results achieved through the end of FY 2001.
of technology Super ESPCs to four.  Historical Reference*  Achieved \$120 million in private sector investment through Super ESPCs. (GREEN)	Historical Reference*  • Achieve between \$80 and \$120 million in private sector investment through Super ESPCs, contributing to national energy security.	<ul> <li>Achieve between \$80 and \$120 million in private sector investment through Super ESPCs, contributing to national energy security.</li> </ul>
Completed 25 Assessment of Load and Energy Reduction Tecniques (ALERT) assessments to shave anticipated peak demand and general energy consumption by 10% (GREEN)	<ul> <li>Complete at least 60 energy assessments including ALERTS, SAVEnergy Audits, industrial facility assessments and operation and maintenance assessments to identify energy and cost saving opportunities.</li> <li>Publish initial listing of products that use</li> </ul>	<ul> <li>Complete at least 80 energy assessments including ALERTS, SAVEnergy Audits, industrial facility assessments and operation and maintenance assessments to identify energy and cost saving opportunities.</li> <li>Integrate information on standby power into</li> </ul>
<ul> <li>N/A</li> <li>Trained 5,400 federal energy personnel in best practices (GREEN)</li> </ul>	minimal standby power by 12/31/01 in accordance with E.O. 13221.  Train 4,000 federal energy personnel in best practices supporting National Energy Policy education goals.	Defense Logistics Agency and General Services Administration's product schedules in accordance with E.O. 13221.  Train 4,000 federal energy personnel in best practices supporting National Energy Policy education goals.

<sup>\*</sup>While not included in original FY01 and FY02 Annual Performance Plans, FEMP has and will continue to track these targets in FY03.

<sup>\*\*</sup>Starting in FY03, number of projects assisted will be used as an indicator toward achievement of annual Federal energy reduction targets since 1)number of projects are wholly under the control of FEMP, whereas reduction in energy intensity is a government-wide achievement, and 2)previous year data on energy intensity are not available until after the report on Annual Performance is due.

## II. A. Funding Table: FEDERAL ENERGY MANAGEMENT PROGRAM

Program Activity	Y 2001 mparable	C	FY 2002 Comparable	FY 2003 Request	\$ Change	% Change
Project Financing	\$ 9,667	\$	8,700	\$ 8,690	\$ -10	-0.1%
Technical Guidance and Assistance	\$ 7,896	\$	7,000	\$ 11,042	\$ 4,042	57.7%
Planning, Reporting, and Evaluation	\$ 2,777	\$	2,340	\$ 2,803	\$ 463	19.8%
Technical/Program Management Support	\$ 887	\$	860	\$ 890	\$ 30	3.5%
Program Direction	\$ 4,434	\$	4,400	\$ 4,455	\$ 55	1.3%
Total, Federal Energy Management Program	\$ 25,661	\$	23,300	\$ 27,880	\$ 4,580	19.7%

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

	F	Y 2001	FY 2002	FY 2003	:	\$ Change	9/	6 Change
Lawrence Berkeley National Laboratory	\$	2,700	\$ 2,700	\$ 3,105	\$	405	\$	15.0%
National Renewable Energy Laboratory	\$	6,200	5,200	\$ 5,980	\$	780	\$	15.0%
Oak Ridge National Laboratory	\$	3,600	\$ 3,600	\$ 4,140	\$	540	\$	15.0%
Pacific Northwest National Laboratory	\$	3,300	\$ 2,480	\$ 2,852	\$	372	\$	15.0%
Sandia National Laboratory	\$	500	\$ 360	\$ 414	\$	54	\$	15.0%
All Others	\$	9,361	\$ 8,960	\$ 11,389	\$	2,429	\$	27.1%
Total, Federal Energy Management Program	\$	25,661	\$ 23,300	\$ 27,880	\$	4,580	\$	19.7%

#### III. Performance Summary of Program Activities: FEDERAL ENERGY MANAGEMENT PROGRAMS

Program Activity	FY 2001	FY 2002	FY 2003		
Project Financing Energy Savings Performance Contracts (ESPCs)		<b>Energy Savings Performance</b> <b>Contracts (ESPCs)</b>	<b>Energy Savings Performance</b> <b>Contracts (ESPCs)</b>		
	Supported regulatory requirements to	Continue efforts to deliver FEMP	Continue efforts to deliver FEMI		

update and maintain qualified list of energy service companies and prepare performance metrics and progress analyses. Focused marketing and outreach efforts on an agency-specific basis. Performed analysis to identify implementation opportunities for ESPC for Federal leased space. Increased renewable energy and distributed energy resource projects through Super ESPCs. Identified Super ESPC opportunities in small facilities, new construction and laboratories. Continued efforts to identify and implement ways to increase the size and pace of awarding Super ESPC delivery orders. Updated training materials and workshops to help prepare agency technical, contracting, legal, administrative, and management personnel to use the Super ESPC contracting vehicle. Trained approximately 360 agency personnel. Super ESPC delivery orders valued at \$120 million were

Continue efforts to deliver FEMP services to award Super ESPC delivery orders, which includes identifying and screening projects, preparing delivery orders and site data packages, evaluating proposals, reviewing and documenting projects. Conduct workshops to help prepare agency technical, contracting, budget, legal, administrative, and management personnel to use the Super ESPC contracting vehicle. Implement Super ESPC delivery orders valued between \$80-\$120 million.

Continue efforts to deliver FEMP services to award Super ESPC delivery orders, which includes identifying and screening projects, preparing delivery orders and site data packages, evaluating proposals, reviewing and documenting projects. Conduct workshops to help prepare agency technical, contracting, budget, legal, administrative, and management personnel to use the Super ESPC contracting vehicle. Implement Super ESPC delivery orders valued at between \$80 and \$120 million.

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Project Financing (Cont'd)	awarded.		
(Cont u)	FEMP was reimbursed nearly \$1 million in from other Federal agencies in FY 2001. (\$7,688)	FEMP estimates other Federal agency reimbursements at \$400,000 in FY 2002. (\$6,920)	FEMP estimates other Federal agency reimbursements at \$800,000 in FY 2003. (\$6,910)
	Utilities program	Utilities program	Utilities program
	Maintained and improved the effectiveness of the Federal Utility Working Group Partnership and expanded utility resource centers to assist Federal customers in developing energy-saving projects and purchasing power from renewable energy sources.  Assisted Federal agencies in gaining an understanding of impacts of deregulation and utility restructuring to enable them to make informed decisions regarding commodity purchases and consumption.  Through UESC, task orders valued at \$100 million were placed. (\$1,979)	Maintain the Federal Utility Partnership Working Group to assist Federal customers in developing energy-saving projects. Provide training for Federal agencies to maximize energy and cost savings and project effectiveness. Provide direct technical assistance to Federal agencies not familiar with the identification, design, and implementation of projects under utility programs.  Provide information and assistance to federal agencies on changes taking place in the energy industry to enable Federal decision-makers to make well informed decisions regarding energy project implementation and commodity purchases; provide assistance in gaining an understanding of the impacts of utility restructuring on:	Lead the Federal Utility Partnership Working Group (FUPWG) in four meetings and expand FEMP's Utility Resource Centers to assist Federal customers in developing energy- saving projects and purchasing power from renewable sources. Track Federal Utility Energy Services Contracting (UESC) projects and provide support through: workshops for Federal agencies, develop and distribute guidance documents and provide direct projects support for projects.  Enable Federal decision-makers to make well informed decisions regarding energy project implementation and commodity purchases; provide assistance in gaining an understanding of the impacts of utility restructuring on: energy costs, security issues at

# III. Performance Summary of Program Activities: FEDERAL ENERGY MANAGEMENT PROGRAMS (Cont'd)

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Project Financing (Cont'd)		energy costs, security issues at Federal sites, and the impact Federal sites have on reliability. (\$1,780)	Federal sites, and the impact Federal sites have on reliability. (\$1,780)
	FEMP estimated \$1 Million in recovered funds from agencies in FY 2001.	FEMP estimates \$400,000 in recovered funds from agencies in FY 2002.	FEMP estimates \$800,000 in recovered funds from agencies in FY 2003.
	Special Project State Grants Program	Special Project State Grants Program	Special Project State Grants Program
	Awarded grants to States under the Special Project State Grants program to provide local support to Federal installations and sites. Activities to be supported include audits and alternative financing for energy efficiency improvements. Grants of \$225,000 are planned for competitive award. These funds are included in the total Project Financing budget of \$9,667,000.	Grants consolidated under Planning, Reporting, and Evaluation section.	Grants consolidated under Planning, Reporting, and Evaluation section.
	Participants include: LBNL, NREL, PNNL, ORNL, SNL, NETL, McNeil Technologies, Aspen Systems.	Participants include: LBNL, NREL, PNNL, ORNL, SNL, NETL, McNeil Technologies, Aspen Systems.	Participants include: LBNL, NREL, PNNL, ORNL, SNL, NETL, McNeil Technologies, Aspen Systems.
Total, Project Financing	\$9,667	\$8,700	\$8,690

<u>Program Activity</u> <u>FY 2001</u> <u>FY 2002</u> <u>FY 2003</u>

#### Technical Guidance and Assistance

#### **Direct Technical Assistance**

Assisted 100 energy efficiency, renewable energy and water conservation projects including distributed energy resources projects and provide supporting documentation for replication. Expanded water conservation program to capture savings from increasing water rates. Supported Green Energy Parks in collaboration with other EERE offices. Provided SAVEnergy audits and action plans; provided project assistance for feasibility studies, design reviews, and technical specifications. Offered assistance to industrial facilities by providing energy, waste, and productivity assessments on a plantwide basis and energy analyses at targeted systems. FEMP provided technical assistance to agencies' efforts to implement distributed energy projects. FEMP also developed case studies of existing distributed energy projects to help agencies understand and implement these projects.

FEMP replicated biomass co-firing projects for Federal facilities

#### **Direct Technical Assistance**

Provide support for at least 60 agency projects in the design, review, and implementation of energy efficiency, water conservation, and renewable projects including facility construction and renovation to identify energy and cost saving opportunities.

#### **Direct Technical Assistance**

Provide support for at least 60 agency projects in the design, review, and implementation of energy efficiency, water conservation, and renewable projects including facility construction and renovation to identify energy and cost saving opportunities.

# III. Performance Summary of Program Activities: FEDERAL ENERGY MANAGEMENT PROGRAMS (Cont'd)

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Technical Guidance and Assistance (Cont'd)	utilizing documentation from previous projects and expand support for combined heat and power projects at Federal facilities.  Technical information was developed to help other agencies use combined heat and power and other distributed energy technologies.		
	Distributed Energy Resources/Combined Heat and Power (DER/CHP):	Distributed Energy Resources/Combined Heat and Power (DER/CHP):	Distributed Energy Resources/Combined Heat and Power (DER/CHP):
	Issued call for projects; received 80 applications and funded 20 projects.	Distribute call for projects to agencies and select up to 4 projects meeting criteria including agency support for project, cost effectiveness and value, agency funding available, cost sharing/project partners, implementation time-frame, strategic value, and large potential impact.	FEMP will provide technical assistance and direct funding to facilities to implement 10 large-scale DER/CHP projects. Technical information will be developed to help other agencies use combined heat and power and other distributed energy technologies.
	Comprehensive Assessments (formerly Peak Load Assessment):	Comprehensive Assessments:	Comprehensive Assessments:
	Assessment of Load and Energy Reduction Techniques (ALERTs) teams introduced to provide peak load assessments in response to California electricity problems. (\$5,520)	Provide customers with at least 60 energy assessments including Assessment of Load and Energy Reduction Techniques (ALERTs), SAVEnergy Audits, industrial facility assessments, and operation and maintenance assessments that	Provide customers with at least 80 energy assessments including Assessment of Load and Energy Reduction Techniques (ALERTs), SAVEnergy Audits, industrial facility assessments, and operation and maintenance assessments that

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Technical Guidance and Assistance (Cont'd)		identify energy and cost saving opportunities. Assessment teams will also identify feasible means to implement these measures at the site, and provide follow-up assistance to facilities that received assistance in prior year. (\$4,984)	identify energy and cost saving opportunities. Assessment teams will also identify feasible means to implement these measures at the site, and provide follow-up assistance to facilities that received assistance in the prior year. (\$8,699)
	Training and Information	Training and Information	Training and Information
	Provided and improved training, technical information and tools to support a greater number of projects than FEMP can assist directly.  Trained 5,400 students in energy efficient technologies. Published 12 technical information products.	Provide technical information, and tools and train 4,000 personnel to support a greater number of projects than FEMP can assist directly. Develop and publish 12 technical information products.	Provide technical information, and tools and train 4,000 personnel to support a greater number of projects than FEMP can assist directly. Expand operation and maintenance training. Develop and publish 12 technical information products.
	Through the Procurement Challenge, helped agencies acquire the most energy efficient and water conserving products. Developed and update product energy efficiency recommendations, and coordinated with the Energy Star program.  Assisted the Defense Logistics Agency to issue an RFP and award a contract for a new higher efficiency roof-top air conditioner that is	Through the Procurement Challenge, help agencies acquire the most energy efficient and water conserving products. Continue to coordinate with the Energy Star Program.  Assist agencies in amending their guide specifications to incorporate requirements for energy efficient products.	Through the Procurement Challenge, help agencies acquire the most energy efficient and water conserving products including the list of lower standby power products. Continue to develop and update product energy efficiency recommendations, and coordinate with the EPA/DOE Energy Star program.
	currently not on the market.  Accelerated the development of	Assist agencies in amending their guide specifications to incorporate	Assist agencies in amending their guide specifications to incorporate

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Technical Guidance and Assistance (Cont'd)	improved software tools that help agencies screen for energy and water saving projects on consistent basis.	requirements for energy efficient products.	requirements for energy efficient products.
	Maintained essential software such as the Building Life Cycle Cost tool that implements requirements for Life Cycle Costing project analysis. Evaluated new, cost effective energy efficient, U.S. manufactured technologies that are not widely used in the Federal sector; shared results of the evaluation with Federal users. (\$2,376)	Maintain essential software such as the Building Life Cycle Cost tool that implements requirements for Life Cycle Costing project analysis. (\$2,016)	Maintain essential software such as the Building Life Cycle Cost tool that implements requirements for Life Cycle Costing project analysis. (\$2,343)
	Special Project State Grants Program Awarded grants to States under the	Special Project State Grants Program	Special Project State Grants Program
	Special Project State Grants program to provide local support to Federal installations and sites. Activities to be supported include audits and alternative financing for energy efficiency improvements. Grants of \$100,000 are planned for competitive award. These funds are used in combination with Project Financing, and Planning, Reporting, and Evaluation funds. These funds are included in the total Technical Guidance and Assistance budget.	Grants consolidated under Planning, Reporting, and Evaluation section.	Grants consolidated under Planning, Reporting, and Evaluation section.

III. Performance Summary of Program Activities: FEDERAL ENERGY MANAGEMENT PROGRAMS (Cont'd)

<b>Program Activity</b>	FY 2001	FY 2003	
Technical Guidance and Assistance (Cont'd)	Participants include: LBNL, NREL, PNNL, ORNL, SNL, McNeil Technologies, Aspen Systems.	Participants include: LBNL, NREL, PNNL, ORNL, SNL, McNeil Technologies, Aspen Systems.	Participants include: LBNL, NREL, PNNL, ORNL, SNL, McNeil Technologies, Aspen Systems.
Total, Technical Guidance and Assistance	\$7,896	\$7,000	\$11,042
Planning, Reporting, and Evaluation	Planning, Reporting and Outreach	Planning, Reporting and Outreach	Planning, Reporting and Outreach
Expanded scope of program activities in support of FEMP mission and programs to reflect mandated goals and activities including new data collection and reporting requirements for the FEMP Annual Report. These actions consolidated the energy use data of the Federal government and responded to a variety of Congressional inquiries. Analyzed potential for distributed energy resources at Federal facilities.		Develop a strategic plan for targeting FEMP services at key remaining opportunities in the Federal sector. Update Secretarial performance plan and status reports.	Implement a strategic plan for targeting FEMP services at key remaining opportunities in the Federal sector. Update Secretarial performance plan and status reports. Promote the "whole building" design approach in the Federal community to increase energy security. Update Secretarial performance plan and status reports.
	Increased efforts to more actively engage the Interagency Energy Management Task Force, the 656 Committee, the Federal Energy Awards Program, and regionally	Facilitate one or two meetings with senior officials and the 656 Committee and the Presidential Management Council, and provide support for the Federal Energy	Facilitate one or two meetings with senior officials and the 656 Committee and the Presidential Management Council, and provide support for the Federal Energy

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Planning, Reporting, and Evaluation (Cont'd)	focused meetings to bring together agency energy managers, procurement officials, and energy product and service suppliers to more productively participate in energy efficiency, water conservation and renewable energy programs.	Management Advisory Committee. Collect and publish data for the Annual Report to Congress, respond to inquiries and provide support to ensure accuracy in reporting and analysis of trends.  Produce and disseminate technical	Management Advisory Committee. Collect and publish data for the Annual Report to Congress, respond to inquiries and provide support to ensure accuracy in reporting and analysis of trends.  Enhance FY 2002 strategic
	Reviewed and revised existing policy guidance to support FEMP activities as new projects are initiated under fee for service agreements with outside agencies.  Reevaluated and made enhancements on a web-based database that will provide accurate and up-to-date information. The database will support reporting of energy efficiency and environmental impacts.	and non-technical energy management material, distributed through FEMP- sponsored events (e.g., technical assistance and training workshops), EERE's information clearinghouse, and non- federal conferences, workshops and seminars and individual requests from Federal agencies, state and local governments and the private sector.	communication activities that target federal and non-federal organizations by replicating projects and partnerships conducted on a broader scale. As a result, FEMP will coordinate the exchange of energy management information on a wide scale with the intent that such interactions become practice in the Federal government.
	Maintained a comprehensive energy efficiency outreach program to allow easy access to FEMP's energy efficiency tools and resources.		
	Special Project State Grants Program	Special Project State Grants Program	Special Project State Grants Program
	Awarded grants to states under the	Award \$500,000 in grants to states	Award \$500,000 in grants to states

# III. Performance Summary of Program Activities: FEDERAL ENERGY MANAGEMENT PROGRAMS (Cont'd)

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003		
Planning, Reporting, and Evaluation (Cont'd)  Special Project State Grants program to provide local support to Federal installations and sites. Support included audits and alternative financing for energy efficiency improvements. Grants of \$75,000 were competitively awarded. Projects awarded by FEMP totaled \$400,000.  Participants include: LBNL, NREL, PNNL, ORNL, SNL, McNeil Technologies. (\$2,777)		under the Special Project State Grants program to provide local support to Federal installations and sites.	under the Special Project State Grants program to provide local support to Federal installations and sites.		
		Participants include: LBNL, NREL, PNNL, ORNL, SNL, McNeil Technologies. (\$2,340)	Participants include: LBNL, NREL, PNNL, ORNL, SNL, McNeil Technologies. (\$2,803)		
Reporting, and Evaluation	\$2,777	\$2,340	\$2,803		
Technical/Prog. Management Support	Provide critical technical and program management support services. (McNeil Technologies) (\$887)	Provide critical technical and program management support services. (Including McNeil Technologies, TMS and Energetics) (\$860)	Provide critical technical and program management support services. (Including McNeil Technologies, TMS and Energetics) (\$890)		
Total, Technical/Prog. Mgmt. Support	\$887	\$860	\$890		
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:		

of current and projected R&D program missions, and the

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Program Direction (Cont'd)	<ul><li>11.9 Personnel compensation</li><li>\$ 2,433</li><li>12.1 Civilian personnel benefits</li><li>\$535</li><li>21.0 Travel and transportation of</li></ul>	<ul><li>11.9 Personnel compensation</li><li>\$2,175</li><li>12.1 Civilian personnel benefits</li><li>\$480</li><li>21.0 Travel and transportation of</li></ul>	<ul><li>11.9 Personnel compensation</li><li>\$ 2,262</li><li>12.1 Civilian personnel benefits</li><li>\$565</li><li>21.0 Travel and transportation of</li></ul>
	persons \$185 25.0 Other contractual services \$100	persons \$160 25.0 Other contractual services \$ 1,585	persons \$185 25.0 Other contractual services \$1,443
	Provided for salaries, benefits, and travel for usage of 27 FTEs to manage and support the FEMP program activities (Budgeted 32 FTE). With authority granted by	The request provides for salaries, benefits, and travel for 27 FTEs to manage and support the FEMP program activities. With authority granted by Congress in the Omnibus	The request provides for salaries, benefits, and travel for 27 FTEs to manage and support the FEMP program activities. (\$3,012)
	Congress in the Omnibus Bill, P.L. 105-277 signed by the President on October 21, 1998, FEMP may use recovered funds for all necessary program expenses, including	Bill, P.L. 105-277 signed by the President on October 21, 1998, FEMP may use recovered funds for all necessary program expenses, including contractor support and	With authority granted by Congress in the Omnibus Bill, P.L. 105-277 signed by the President on October 21, 1998, FEMP may be reimbursed by other agencies for all necessary
	contractor support and resources need to achieve greater energy savings in Federal facilities. Limited appointment Federal personnel were planned to be hired to support project financing and technical assistance programs at HQ, GO and RO's to be paid from reimbursed funds.	resources need to achieve greater energy savings in Federal facilities. Limited appointment Federal personnel are planned to be sustained to support project financing and technical assistance programs at HQ, GO and RO's to be paid from reimbursed funds.	program expenses, including contractor support and resources needed to achieve greater energy savings in Federal facilities. Limited appointment Federal personnel will be paid from these non-DOE funds to support financing and technical assistance programs at HQ, GO and
	Also supported a systematic analysis of staffing needs within the context	(\$2,815)	RO's.

Program Activity FY 2001 FY 2002 FY 2003

Program
Direction (Cont'd)

development of a comprehensive plan that focused on building and sustaining a talented and diverse workforce of R&D Technical Managers. The total obligational authority of \$3,253,000 for Program Direction includes \$260,000 from FY 2000 unobligated carryover. (\$2,993)

TRANSFER FROM: Planning, Reporting, and Evaluation and Program Direction

#### **Management Support Services**

Consistent with other DOE programs under the jurisdiction of the Interior and Related Agencies
Appropriations Committees, the Energy Conservation programs provide funding for Management Support Services, which includes activities such as improving the effectiveness, efficiency and economy of management and general administrative services. These activities are critical to the planning, formulation, and execution of the Energy Conservation programs.

#### **Management Support Services**

Consistent with other DOE programs under the jurisdiction of the Interior and Related Agencies Appropriations Committees, the **Energy Conservation programs** provide funding for Management Support Services, which includes activities such as improving the effectiveness, efficiency and economy of management and general administrative services. These activities are critical to the planning, formulation, and execution of the Energy Conservation programs. The increase in FY 2002 helps to support activities under the

#### **Management Support Services**

Consistent with other DOE programs under the jurisdiction of the Interior and Related Agencies
Appropriations Committees, the Energy Conservation programs provide funding for Management Support Services, which includes activities such as improving the effectiveness, efficiency and economy of management and general administrative services.
These activities are critical to the planning, formulation, and execution of the Energy Conservation programs.

# III. Performance Summary of Program Activities: FEDERAL ENERGY MANAGEMENT PROGRAMS (Cont'd)

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Program		reimbursable authority.	
Direction (Cont'd)	(McNeil Technologies). (\$1,441)	(McNeil Technologies, Energetics and TMS). (\$1,585)	(McNeil Technologies, Energetics and TMS). (\$1,443)
Total, Program Direction	\$4,434	\$4,400	\$4,455
TOTAL, OFFICE OF FEDERAL ENERGY MANAGEMENT PROGRAMS	\$25,661	\$23,300	\$27,880

# DEPARTMENT OF ENERGY FY 2003 CONGRESSIONAL BUDGET REQUEST

# ENERGY EFFICIENCY AND RENEWABLE ENERGY ENERGY CONSERVATION

(Tabular Dollars in Thousands, Narrative in Whole Dollars)

#### POWER TECHNOLOGIES PROGRAM MISSION

*Mission:* The Distributed Energy Resources (DER) Program leads a national effort to develop a flexible, smart, and secure energy system by integrating clean, efficient, reliable, and affordable distributed energy technologies; documenting the energy, economic, and environmental benefits of the expanded use of distributed energy resources; and supporting the development of regional or state energy strategies, including distributed generation deployment.

Strategic Context: Distributed energy refers to the production of electricity and other forms of usable energy at or near the point of distribution or use, in industry, buildings, or district energy systems to complement central power stations. DOE's distributed energy generation initiative goal is to develop the cooperation and technology necessary to enable these interdependent systems to provide nearly 20 percent of the Nation's new power by 2020. Moving energy supplies closer to the point of end use through such technologies as microturbines, reciprocating engines, small gas turbines, and fuel cells, promises important economic, environmental, and reliability advantages. The direct economic benefits of such systems include efficient and cost-effective power resources, power in locations where there are no utility services (e.g. rural Alaska), maximum use of recoverable energy, and the sale of surplus power to meet electricity demand or provide peaking power. Thermally activated technologies include cooling, dehumidification, humidification, water heating, steam heating, and drying.

Strategic Approach: The DER Program is focusing on technology development and systems integration research activities. This strategic approach includes efficiency improvements, cost reductions, emission reductions, adaptation for fuel flexibility, and development of performance standards, environmental standards, and fire safety codes and standards for electricity-generation and combined heat and power technologies. The DER program combines the energy efficiency activities from the Interior funded sectors with the Office of Energy Efficiency and Renewable Energy and complements the Energy and Water Development research activities within the Office of Power Technologies.

*GPRA*: The Distributed Energy Resources Program's research, development, and deployment efforts will help contribute over 60,000 megawatts (20% of new capacity additions) of distributed energy capacity by 2020. Distributed energy capacity in 2005 is projected to be over 20,000 megawatts, compared to a 1997 baseline of less than 15,000 megawatts. The program's supporting goal is to increase the market competitiveness of distributed energy resource technology by reducing cost, limiting emissions, and increasing efficiency of electricity generation, and providing for fuel flexibility. Thus, distributed energy technologies directly support the national need for affordable and reliable electricity generation, transmission, and use. The program also aims to reduce the energy intensity of buildings, business, and industry by promoting the use of combined heat and power and load management strategies with energy systems.

#### Benefits

Distributed energy resources offer unique benefits to power companies and customers that are not available from centralized electricity generation. Distributed power technologies are inherently modular, thereby enabling capacity additions and reductions in small increments that are closely matched with demand. Distributed energy resources also reduce the load at the distribution level of the transmission and distribution grid, thus helping increase the reliability of the electricity system. In addition, it is much cheaper and easier to meet a growing local demand for electricity by adding new generators close to the load than by adding transmission capacity. This is partly because of the lengthy permitting process required for new transmission lines. Modular power plants-using local resources (e.g. natural gas, biomass, landfill gas, propane), for example, can be approved and sited close to a new load in a matter of months, versus several years for transmission line upgrades. Transmission networks are also inherently expensive to build and maintain. The projected benefits of the Distributed Energy Resources Program are shown in the table below.

#### GPRA METRICS FOR COMBINED HEAT AND POWER

	2005	2010	2020
Total Primary Energy Displaced (Trillion Btu)	178	405	1,029
Energy Costs or Savings (Millions of \$)	860	2,000	5,030
Carbon Equivalent Emissions Displaced (MMTCE)	4	11	30

Note: Program benefit projections are developed through an impact analysis process undertaken annually by EERE, based on assumptions for future energy markets derived from EIA's annual energy outlook. EERE's sectors analyze the impacts their programs will have on energy savings, energy cost savings, and carbon reductions if all program goals are met, and future energy markets develop as expected. A sample of program benefit estimates are externally reviewed by Arthur D. Little.

#### **Program Strategic Performance Goal**

The following Program Strategic Goal (PSPG) has been established for the Distributed Energy Resources Program:

### **ER1-9: Distributed Energy Resources**

Distributed Energy Resources (DER) R&D activities will increase the share of new DER electricity-generating capacity from 5 percent in 2000 to 7 percent in 2005.

Performance Indicator

Megawatts of distributed energy generating capacity (located at point of use).

Annual Performance Results and Targets

FY 2001 Results	FY 2002 Target	FY 2003 Proposed Target			
Completed 5,000 hour durability, performance, and emissions testing of the Mercury 50 Advanced Turbine System engine. (Advanced Turbine Systems component prior to formation of the DER program)	Demonstrate a microturbine package     (highly efficient for reducing peak     loads) at a University site.  Historical Reference	Will complete the 12 Beta Field Test Units of high efficiency natural gas fired heat pump (60% better than pulse combustion furnace) and install at field test sites hosted by major U.S. Gas Utilities.			
	<ul> <li>Complete preliminary systems         designs for a 40 percent efficient         microturbine and a low emission         reciprocating engine.</li> <li>Demonstrate an advanced ceramic         combustor liner in an industrial gas         turbine for over 16,000 hours service.</li> </ul>	<ul> <li>Will complete 4,000 hour field test of ceramic composite shroud components to demonstrate performance and emission benefits to a gas turbine.</li> <li>Will demonstrate 5 percentage point increase in efficiency for an advanced</li> </ul>			
	<ul> <li>Complete test and evaluation of a large absorption chiller.</li> </ul>	microturbine system.			

(Dollars in Thousands)

#### POWER TECHNOLOGIES

#### PROGRAM FUNDING PROFILE

Program Activity		FY 2001 omparable	(	FY 2002 Comparable	FY 2003 Request	\$ Change	% Change
Distributed Energy Resources	\$	45,899	\$	61,896	\$62,284	\$388	0.1%
Management and Planning	\$	1,447	\$	1,950	\$1,620	\$-330	-17.0%
TOTAL	\$	47,346	\$	63,846	\$63,904	\$58	0.1%
Summary							
Operating Expenses	\$	47,346	\$	63,846	\$63,904	\$58	0.1%
Total Program	\$	47,346	\$	63,846	\$63,904	\$58	0.1%
Staffing (FTEs)		Actual		Budgeted	Budgeted		
HQ FTEs		5		5	5		
Field FTEs		6		3	5		
Total FTEs		11		8	10		

Actual Full-Time Equivalent (FTE) usage is cited for FY 2001 while budgeted staffing numbers are displayed in the FY 2002 and FY 2003 columns. For comparability purposes, budgeted FY 2001 FTE were HQ 5, Field 3 and total 8.

#### **Authorizations:**

P.L. 94-163, Energy Policy and Conservation Act; P.L. 94-385, Energy Conservation and Production Act; P.L. 95-619, National Energy Conservation Policy Act; P.L. 100-615, Federal Management Improvement Act; P.L. 102-486, Energy Policy Act

(Dollars in Thousands)

#### POWER TECHNOLOGIES

#### **SUMMARY OF CHANGES**

	Y 2003 Request
FY 2002 Enacted	\$ 63,846
Non-Discretionary	
- Increase for Federal Pay Raise and Locality Pay	 27
FY 2003 Base	\$ 63,873
Power Technologies:	
- Distributed Energy Resources - supports high priority DER activities in technology research and development, such as	
fuel cells	388
- Management and Planning reduce management support services	 -357
FY 2003 Congressional Budget Request	\$ 63,904

# POWER TECHNOLOGIES

(Dollars in Thousands)

#### DISTRIBUTED ENERGY RESOURCES

#### I. Mission Supporting Goals and Objectives

**Mission:** To lead a national effort to:

- Develop a flexible, smart, and secure energy system by integrating the "next generation" of clean, efficient, reliable, and affordable distributed energy technologies
- Document the energy, economic, and environmental benefits of the expanded use of distributed energy resources
- Support the development of regional or state energy strategies including distributed generation deployment.

Summary: The Distributed Energy Resources Program is developing a portfolio of advanced on-site, small-scale, and modular energy generation, and delivery systems for industrial, commercial, residential, and utility applications. The scope of program activities includes technology base activities in advanced materials, combustion, and communications and controls; engineering design activities for components, subsystems, and systems; field testing and verification activities for identifying and resolving systems integration issues; codes and standards development activities for siting and permitting distributed energy systems; and education and outreach activities to inform policy makers, business executives, and interest groups about distributed energy resources and the regulatory and institutional barriers that interfere with implementation. The intent is to expand the array of energy choices for clean, efficient, and affordable on-site energy generation, including electric power, thermal energy, and combined heat and power. The strategy is to build R&D partnerships with industry and others to make these systems more energy efficient, reliable, and affordable to consumers than the energy services they currently receive, and for these systems to have better power quality and lower environmental impacts. The ultimate aim is to improve the energy and environmental performance of the distributed technologies, and increase the level of technology integration among on-site energy generation alternatives so that the Nation can achieve a more flexible and smarter energy system. This new energy infrastructure will operate seamlessly alongside the existing system to enable consumers to make wiser energy choices and implement customized solutions, thereby boosting the Nation's economic productivity, energy efficiency, and environmental stewardship. Distributed energy resources (DER) must be fuel flexible and clean.

Context: Of the 105 recommendations in the President's National Energy Policy (NEP), more than 20 affect distributed energy resources. For example, microturbines are referred to as a technology that offers a number of "significant advantages" over currently available small-scale power generators. These include having a small number of moving parts, compact size and light weight, optimal efficiency, lower emissions and electricity costs, and the ability to use waste fuels. In fact, "microturbines could easily capture a significant share of the distributed generation market" (page 6-4 of the NEP). Another example is combined heat and power (CHP), which is mentioned in the National Energy Policy in several places. CHPs' environmental benefits are discussed, as well as the technology's efficiency and cost savings in industrial boilers, energy systems, and small scale buildings applications. The NEP recognizes CHP as "one of a group of clean, highly reliable distributed energy technologies that reduce the amount of electricity lost in transmission while eliminating the need to construct expensive power lines to transmit power from large central power plants" (page 3-5). Recommendations on CHP include encouraging increased energy efficiency through CHP projects, working with local and State governments to promote the use of well-designed CHP at brownfields sites, and promoting CHP through flexibility in environmental permitting and streamlining the permitting process.

Several regulatory and institutional barriers - being implemented by Federal, State, and local government agencies, and electric utilities- interfere with the expanded installation of distributed energy systems. The primary market targets include commercial buildings, merchant facilities, industrial plants, Federal facilities, district energy systems, and utility transmission and distribution systems. To address the barriers, the program has initiated analysis, education, and outreach activities, in concert with industry groups and government agencies, to support the development of better environmental siting and permitting regulations, more effective building codes and standards, and more open and competitive utility markets and business practices. The aim is to streamline procedures, accelerate distributed energy project development timetables, and lower unnecessary costs of regulatory compliance. The program is working with manufacturers and building code officials to ease the process for using fuel cells in buildings for electricity and combined heat and power applications. The program recently held several workshops with building code officials in California to expedite their treatment of distributed energy technologies and accelerate installations to meet the emergency requirements for new electric capacity. Several more workshops have been planned for different areas of the country.

Strategy: The program operates a network of partnerships with industry, States, laboratories, universities, and other Federal offices and agencies. Collaboration is taking place on cost-shared R&D projects, development of codes and standards, and information dissemination activities. Federal partnerships include participation with the Federal Energy Management Program (FEMP) to promote and install DER at Federal facilities and the State Energy Program to increase awareness, promote benefits, and remove barriers to DER. There is also interaction with the EPA to work on removing the barriers to the siting and permitting CHP systems. State program partnerships include California Energy Commission (CEC), New York State Energy Research and Development Agency (NYSERDA), and others. The program is working with National Labs such as ORNL, NREL, SNL, PNNL, and NETL to develop an integrated national laboratory support effort that assembles the capabilities of the various labs and makes them available to manufacturers and end-users for testing and evaluation of the performance and integration of the various distributed energy systems.

#### Long Term Goals and Benefits:

#### **Distributed Generation Technology Development**

The aim of this sub-program is the development of "next generation" distributed energy technologies (e.g., microturbines, reciprocating engines, industrial gas turbines, thermally activated cooling and humidity control devices, combined heat and power systems) that are cleaner and more reliable, fuel efficient, fuel flexible and affordable than existing equipment.

#### Goals

- Increase the market competitiveness of DER technology by reducing cost and increasing efficiency of electricity generation.
- Develop fuel flexible technologies.
- Reduce emissions while maintaining performance.

#### **Objectives**

- By 2007 advanced microturbines and reciprocating engines will have undergone successful 8,000 hour field tests and be ready for commercial scale-up by manufacturers
- By 2007 advanced microturbine system designs and components will be at least 30 percent more efficient than 2001 models, which are 28 percent efficient
- By 2007 advanced reciprocating engines and components will be at least 25 percent more efficient than 2001 models, which are 38 percent efficient
- By 2010 building fuel cells (PEMs) and components will cost at least 30 percent less than 2001 models for commercial and industrial applications
- By 2010 advanced materials, components, and subsystems for industrial gas turbines that have at least 65 percent lower NO<sub>x</sub> emissions will be available

#### **End Use Systems Integration and Interface**

The aim of this sub-program is the development of technologies, tools, and techniques to enable prospective users of distributed energy systems regardless of the type of technology - to install, operate, control, and maintain those systems in an optimized manner to meet the needs of their facilities and business operations, and those of the electric power and natural gas utilities to which the systems are interconnected. This includes emphasis on systems integration of individual technologies into packaged systems for addressing national needs for power quality, power reliability, peak shaving, back up power, and combined heat and power.

#### Goals

- Support the national need for clean, affordable, and reliable electricity generation and use.
- Reduce the energy intensity of businesses and industry by promoting the use of combined heat and power.
- Increase the efficiency of facilities through deployment of integrated electrical, heating, cooling, and ventilation systems.

#### **Objectives**

- By 2010 more streamlined and less costly siting, permitting, and interconnecting processes for distributed energy developers
- By 2010 greater commercial availability of integrated on-site generation and combined heat and power packaged systems
- By 2010 combined heat and power installations will have doubled compared to 1998 levels
- By 2010 thermally activated heating, cooling, and humidity control systems will be commercially available in integrated, optimized packaged systems with power generation for commercial buildings and industrial facilities
- By 2010 building owners, industrial plant managers and federal facility managers will have the information and analytical tools they need to install distributed energy systems with a minimum of regulatory delays
- By 2010 technologies, tools, and techniques will be available for effective communications and control of distributed energy devices for end users and utility applications to allow for smart operation and secure energy services

### **Program Strategic Performance Goal**

# **ER1-9: Distributed Energy Resources**

Distributed Energy Resources (DER) R&D activities will increase the share of new DER electricity-generating capacity from 5 percent in 2000 to 7 percent in 2005.

Annual Performance Results and Targets

FY 2001 Results	FY 2002 Target	FY 2003 Proposed Target
Completed 5,000 hour durability, performance, and emissions testing of the Mercury 50 Advanced Turbine System engine. (Advanced Turbine Systems component prior to	Demonstrate a microturbine package     (highly efficient for reducing peak     loads) at a University site.  Historical Reference:	Will complete the 12 Beta Field     Test Units of high efficiency natural gas fired heat pump (60% better than pulse combustion furnace) and install at field test sites hosted by
formation of the DER program)	Complete preliminary systems designs	major U.S. Gas Utilities.
	for a 40 percent efficient microturbine and a low emission reciprocating engine.	Will complete 4,000 hour field test of ceramic composite shroud components to demonstrate performance and emission benefits
	Demonstrate an advanced ceramic combustor liner in an industrial gas	to a gas turbine.
	turbine for over 16,000 hours service.	Will demonstrate 5 percentage point increase in efficiency for an
	Complete test and evaluation of a large absorption chiller.	advanced microturbine system.

# II. A. Funding Table: DISTRIBUTED ENERGY RESOURCES

FY 2001 Program Activity Comparable		FY 2002 Comparable		FY 2003 Request		\$ Change		% Change	
Distributed Generation Technology Development	\$	43,903	\$	55,896	\$	42,896	\$	-13,000	-23.3%
End-Use Systems Integration and Interface	\$	1,996	\$	6,000	\$	19,388	\$	13,388	223.1%
Total, Distributed Energy Resources	\$	45,899	\$	61,896*		\$62,284*	\$	388	0.6%

# **II. B. Laboratory and Facility Funding Table:** DISTRIBUTED ENERGY RESOURCES

	_	Y 2001 mparable	_	FY 2002 omparable	FY 2003 Request	\$ Change	% Change
Argonne National Lab (East)	\$	575	\$	575	\$ 575	\$ 0	0.0%
Brookhaven National Lab	\$	500	\$	500	\$ 500	\$ 0	0.0%
National Renewable Energy Lab	\$	2,060	\$	2,060	\$ 2,060	\$ 0	0.0%
Oak Ridge National Lab	\$	7,867	\$	13,867	\$ 13,867	\$ 0	0.0%
Sandia National Laboratories	\$	100	\$	100	\$ 100	\$ 0	0.0%
All Other	\$	34,797	\$	44,794	\$ 45,182	\$ 388	0.9%
Total, Distributed Energy Resources	\$	45,899	\$	61,896	\$ 62,284	\$ 388	0.6%

<sup>\*</sup> Estimated SBIR/STTR contributions will be \$ 200,000 for FY 02 and FY03.

# III. Performance Summary of Program Activities: DISTRIBUTED ENERGY RESOURCES (Cont'd)

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Distributed Generation Technology Development	TRANSFER FROM: Building Technology, State, and Community Sector/ Building Research and Standards/ Equipment, Materials, and Tools/ Cogeneration/Fuel Cells	The FY 2002 budget request combined the following activities under Advanced Generation and Thermally Activated Technologies	
	Building Fuel Cells Conducted package systems studies for fuel cell combined heat and power applications. Completed the design competition for a 50 kW fuel cell for buildings and initiate one or two of the design concepts for a high temperature PEM fuel cell system. Initiated the next phase of the reformer design and fabricate an engineering prototype for laboratory testing, incorporate it into a 50kW PEM fuel cell design. (\$5,440)	Stationary Fuel Cells Finalize the design and build a laboratory prototype Natural Gas Fuel Processor with CO clean-up capability for high temperature stationary PEM fuel cell. Fabricate laboratory prototype of a Membrane- Electrode-Assembly with advanced high temperature membranes for PEM fuel cell. Complete phase II design of a 50kW high temperature PEM fuel cell incorporating cooling, heating and power (CHP) principles for recoverable heat. (\$5,500)	Stationary Fuel Cells Will initiate testing of laboratory prototype for Natural Gas Fuel Processor with CO clean-up capability for high temperature stationary PEM fuel cell. Will begin testing of laboratory prototype of a Membrane-Electrode-Assembly with advanced high temperature membranes for PEM fuel cell. Based on Phase II designs, will begin development of prototype 50kW high temperature PEM fuel cell incorporating cooling, heating and power (CHP) principles for recoverable heat. (\$7,500)

# III. Performance Summary of Program Activities: DISTRIBUTED ENERGY RESOURCES (Cont'd)

Program Activity	FY 2001	FY 2002	FY 2003
Distributed Generation Technology Development (Cont'd)	TRANSFER FROM: Industry Sector/ Industries of the Future (Crosscutting)/ Distributed Generation/ Industrial Power Generation		
			<b>Industrial Gas Turbines</b>
	Industrial Gas Turbines Continued durable, cost effective low emissions technology research and development to demonstrate emissions levels of less than 7 ppm NO <sub>X</sub> for advanced gas turbines.  Supported R&D that demonstrated innovative high temperature materials such as coatings and ceramics in gas turbines to achieve endurance levels of greater than 8,000 hours. Investigated the	Industrial Gas Turbines Continue durable cost effective low emissions technology research and development to field test emission levels of less than 7 ppm NOx for advanced gas turbines. Demonstrate technical feasibility of achieving low emissions under rig conditions.  Continue R&D that demonstrates innovative high temperature materials such as coatings and ceramics in gas turbines to achieve	Will field and rig test cost effective low emissions technologies with the goal of less than 7 ppm NOx for advanced gas turbines. Will continue research and development on promising low emissions technologies and will develop perspective new technologies including fuel flexibility. Will investigate long-term durability of developed low emission technologies.
	oxidation/water vapor degradation of ceramic components for gas turbines and developed techniques necessary to mitigate. (\$4,451)	endurance levels of greater than 8,000 hours. Initiate field testing of advanced thermal barrier coating and ceramic shrouds in gas turbine engines. (\$4,500)	Will continue R&D to demonstrate innovative high temperature materials such as coatings and ceramics in gas turbines to improve endurance levels and push beyond 8,000 hours. Will continue testing of advanced ceramic components and add additional components to advanced turbine field tests. Based on field test results, will modify material systems to improve

Program ActivityFY 2001FY 2002FY 2003Distributeddurability and life. Will in

Generation Technology Development (Cont'd)

#### **Microturbines**

Continued the R&D program for advanced microturbines with goals of over 40 percent efficiency, single digit emissions, fuel flexibility and 10 percent reduction in costs.

Manufacturers began design and development of critical components and subcomponents for the second generation microturbines. Research focused on recuperator improvements, combustion systems, reliability and durability improvements on critical components such as bearings. (\$6,924)

### **Reciprocating Engines**

Continued to support the development of the advanced reciprocating engines systems (ARES) program to develop a 50 percent efficient reciprocating

#### **Microturbines**

Continue efforts on second generation of advanced microturbines to achieve efficiencies of at least 40 percent, single digit emissions, fuel flexibility, and 10 percent reduction in costs. Fabricate and begin testing of key critical components and subsystems such as recuperators, turbine, combustor, gas compressor, and control package to improve efficiency, reliability, and durability. (\$11,000)

## **Reciprocating Engines**

Continue to support the development of the advanced reciprocating engines systems (ARES) program to develop a 50 percent efficient reciprocating engine with single digit emissions and 10 percent reduction

durability and life. Will investigate additional components and materials to improve efficiency and emissions in gas turbine engines. (\$4,500)

#### **Microturbines**

Will continue efforts on second generation of advanced microturbines to achieve efficiencies of at least 40 percent, single digit emissions, fuel flexibility, and 10 percent reduction in costs. Will continue fabrication and testing of key critical components and subsystems such as recuperators, turbine, combustor, and power electronics to improve efficiency, reliability, and durability. Will initiate subsystem integration tasks. (\$7,000)

## **Reciprocating Engines**

Will continue to support the development of the advanced reciprocating engines systems (ARES) program to develop a 50 percent efficient reciprocating engine with single digit emissions and 10 percent reduction in costs.

<b>Program Activity</b>	FY 2001	FY 2003	
Distributed Generation Technology Development (Cont'd)	engine with single digit emissions and 10 percent reduction in costs. Engine manufacturers began design of advanced engines system, including key sub-systems such as combustion, ignition, fuel delivery. (\$2,966)	in costs. Engine manufacturers begin development and testing of specific engine components and subcomponents. Pre-competitive R&D continues with National Laboratories. Continue partnership with National Energy Technology Laboratory on reciprocating engine University research program. (\$11,000)	Engine manufacturers will continue development and testing of specific engine components and subcomponents. Pre-competitive R&D will also continue with National Laboratories. Will continue partnership with National Energy Technology Laboratory on reciprocating engine University research program. (\$10,000)
	TRANSFER FROM: Industry Sector/ Industries of the Future (Crosscutting)/ Enabling Technologies/ Engineering Ceramics/CFCCs		
		Technology Base - Advanced Materials and Sensors	Technology Base - Advanced Materials and Sensors
	Technology Base - Advanced Materials and Sensors The team of industry, national laboratories, and universities collaborated to develop, test and demonstrate advanced materials, including continuous fiber ceramic composites (CFCC) with superior high temperature strength and fatigue resistance, corrosion	Continue developing, testing, and integrating advanced materials with superior high temperature strength and fatigue, corrosion, and wear resistance for combustor liners and other applications in distributed generation systems. Develop and test CFCC for applications such as combustor liners and shrouds in gas turbine applications. CFCC	The technology base will continue to develop and test enabling technologies such as materials, information technologies, sensors and power electronics for distributed generation systems. Will continue development and testing of advanced materials with superior high temperature strength and fatigue, corrosion, and wear

**Program Activity** FY 2001 FY 2002 FY 2003 Distributed resistance, and wear resistance for components begin field testing under resistance for hot section Generation various applications in gas turbine commercial operating conditions for components and other applications at least 4.000 hours. Technology engines. in distributed generation systems. Development (Cont'd) Long term testing and exposure of Develop and test advanced ceramics, Will develop and test advanced representative advanced materials coatings and high temperature metals ceramics, coatings and high for the next-generation performed under application temperature metals for the nextconditions for hundreds to thousands microturbines. New materials for generation microturbines. New of hours. These long term hot section components such as materials for hot section exposures allowed for the collection rotors and combustor liner and components such as rotors and of data to support the benefits of recuperators are under development. combustor liner and recuperators using advanced materials and Material properties and durability in will be developed. Material microturbine environments. support adoption and properties and durability in commercialization. including temperature, pressure and microturbine environments. water vapor are determined. Testing including temperature, pressure and of next generation candidate Developed and tested advanced water vapor will be determined by ceramics, coatings and high laboratory experiments and high recuperator materials is initiated. temperature metals for the nextand medium velocity rigs. Next generation microturbines. As As the penetration of distributed generation candidate recuperator turbine inlet temperatures are generation technologies increase materials will be evaluated in real increased, new materials for hot throughout the electric system, microturbine environments. section components such as rotors communication and control (\$8,256)functional requirements will need to and combustor liner and be developed to ensure that the recuperators are needed. distributed generation technologies can contribute to the grid adequacy Initiated development of a roadmap and strategic plan for research and and security by providing sufficient development on communications generation resources and can and control technologies for the communicate in a coordinated integration of distributed energy manner. Advanced communications

Program Activity	FY 2001	FY 2003	
Distributed Generation Technology Development (Cont'd)	resources into energy delivery systems. Identified key research and development priorities with Industry. (\$8,159)	and controls will need to be cost effective and reliable with "plug and play" capability, including flexibility to handle different types of distributed generation technologies with seamless integration. Initiate activities with industry on development of communications architecture and functional requirements (\$8,256)	
	TRANSFER FROM: Building Technology, State, and Community Sector/ Building Research and Standards/ Equipment, Materials, and Tools/ Furnaces & Boilers/ Combustion Research  Combustion Research Fuel flexibility is important in combustion systems for distributed energy resource applications, including combined heat and power for buildings. Burners and integrated systems that are smaller,	Fuel Flexibility Continue to improve the quality of oil combustion systems and fuel flexibility for distributed energy resource applications, including combined heat and power. (\$500)	Fuel Flexibility Will continue to improve the quality of oil combustion systems and fuel flexibility for distributed energy resource applications, including combined heat and power. Will begin testing of an advanced oil combustion system in a modified microturbine. (\$500)

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Distributed Generation Technology Development (Cont'd)	have higher reliability and use improved quality heating oil (lower sulfur and nitrogen contents) need to be developed. Working with the Oil Heat/Combustion Industry, completed field testing of the low emissions, high performance Fan Atomized Burner (FAB). (\$494)		
	TRANSFER FROM: Building Technology, State, and Community Sector/ Building Research and Standards/ Equipment, Materials, and Tools/ Space Conditioning & Refrigeration R&D/ Residential Absorption Heat Pumps/ Desiccant and Chillers	Thermally Activated Technologies Using the viable heat energy rejected from the making of electricity, high efficiencies can be achieved and	Thermally Activated Technologies Will begin field testing several
	<b>Advanced Absorption Heat</b>	package technologies can be	GAX residential heat pumps. Will
	Pumps Completed laboratory test of a residential GAX heat pump prototype. Began fabricating several engineering field test prototype residential heat pumps units. Fabricated and began laboratory	integrated and optimized for end-use application. By using the viable rejected heat energy from the making of electricity, these packaged systems will achieve efficiencies of 75 percent or higher.	complete laboratory testing of Solid/vapor "high cool" complex compound 3-ton heat pump. Will finalize design and begin fabrication of an engineering prototype unit. Will begin field test of a prototype Ammonia/Water heat pump for light
	testing of a solid/vapor "high cool" complex compound 3-ton heat pump. Completed fabrication and	Fabricate several engineering prototype residential GAX heat pumps for multiple unit field test.	commercial application. Will continue design and begin fabrication of critical components

Program Activity FY 2001 FY 2002 FY 2003

Distributed began testing a laboratory prototype Continue laboratory testing of for an air cooled absorption of the prototype for all absorptions of the proto

Distributed
Generation
Technology
Development
(Cont'd)

began testing a laboratory prototype unit of an Ammonia/Water heat pump for light commercial application. Completed work on a pre-production 450 ton DCC cycle chiller for installation at the Clark County Office Complex in Las Vegas, Nevada and begin a one year field test and evaluation. (\$7,824)

#### **Advanced Dessicants and Chillers**

Continued working with the gas industry and Georgia Tech Research Institute to commercialize desiccant technology for improved ventilation and indoor air quality. Completed testing desiccant systems in side-byside comparison with standard HVAC systems in high occupancy restaurants and evaluated the impact of desiccants on comfort, indoor air quality, and humidity control in buildings. Continued research, development, and testing of liquid desiccant units to establish the impact of scrubbing indoor air and removing contaminants introduced by bad air brought into the buildings.

Continue laboratory testing of Solid/vapor "high cool" complex compound 3-ton heat pump. Complete laboratory testing of prototype Ammonia/Water heat pump for light commercial application, and begin fabrication of a field test unit. Continue test and evaluation of an Absorption Chiller at the Clark Country Office Building in Las Vegas, NV. Initiate concept design of an air cooled absorption chiller for commercial application.

Continue working with the gas industry and Georgia Tech Research Institute to commercialize desiccant technology for improved ventilation and indoor air quality. Continue R&D on advanced novel desiccant. material for improved performance in humidity control, regeneration time and energy, and reduced cost. Complete fabrication and begin testing and evaluation of an engineering model on Advanced Liquid Desiccant systems. Award six contracts on packaged combined heat and power systems. (\$14,660)

for an air cooled absorption chiller for commercial application.

Will continue working with the gas industry and Georgia Tech Research Institute to commercialize desiccant technology for improved ventilation and indoor air quality. Will continue R&D on advanced novel desiccant material for improved performance in humidity control, cost, regeneration time and energy, and reduced cost. Will continue testing and evaluation of an engineering model on Advanced Liquid Desiccant systems. (\$4,660)

<b>Program Activity</b>	FY 2001	FY 2003	
Distributed Generation Technology Development	(\$7,165)		
(Cont'd)		Participants include: Oak Ridge	
		National Laboratory, Argonne	
		National Laboratory, Honeywell	
		Ceramics, Honeywell Composites,	Participants include: Oak Ridge
		GE, International Fuel Cells, H2S	National Laboratory, Argonne
		Burner Technologies, Foster Miller	National Laboratory, Honeywell
	Participants included: Oak Ridge	Associates, EERC, ADL, Allied	Ceramics, Honeywell Composites,
	National Laboratory, Argonne	Signal, Analytic Power, Plug Power,	GE, International Fuel Cells, H2S
	National Laboratory, Honeywell	Avista Labs, Alzeta, Materials &	Burner Technologies, Foster Miller
	Ceramics, Honeywell Composites,	Electrochemical Research, EIC Lab,	Associates, EERC, ADL, Allied
	GE, International Fuel Cells, H2S	PNL, Solar Turbines Inc., Allison	Signal, Analytic Power, Plug
	Burner Technologies, Foster Miller	Engines, Battelle Columbus	Power, Avista Labs, Alzeta,
	Associates, EERC, ADL, Allied	Laboratories, Pratt & Whitney,	Materials & Electrochemical
	Signal, Analytic Power, Plug	Siemens Westinghouse, Southwest	Research, EIC Lab, PNL, Solar
	Power, Avista Labs, Materials &	Research Institute, Allied Signal	Turbines Inc., Allison Engines,
	Electrochemical Research, EIC Lab,	Ceramics Inc., Kyocera, Catalytica,	Battelle Columbus Laboratories,
	PNL, Solar Turbines Inc., Allison Engines, Battelle Columbus	PCI, Honeywell, Capstone, General Electric, Teledyne, United	Pratt &Whitney, Siemens Westinghouse, Southwest Research
	Laboratories, Pratt & Whitney,	Technologies, Ingersoll Rand,, State	Institute, Allied Signal Ceramics
	Siemens Westinghouse, Southwest	Energy Offices, Caterpillar,	Inc., Kyocera, Catalytica, PCI,
	Research Institute, Allied Signal	Waukesha, Cooper, Cummins,	Honeywell, Capstone, General
	Ceramics Inc., Kyocera, Catalytica,	Fairbanks Morse, National Energy	Electric, United Technologies,
	PCI, Honeywell, Capstone, General	Technology Laboratory, Sandia	Ingersoll Rand, Teledyne, State
	Electric, Teledyne, United	National Laboratory, Mississippi	Energy Offices, Caterpillar,
	Technologies, Ingersoll Rand,, State	Valley Gas, Rocky Research, York	Waukesha, Cooper, Cummins,
	Energy Offices, Caterpillar,	International, Southwest Gas, So Cal	Fairbanks Morse, National Energy

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Distributed Generation Technology Development (Cont'd)	Waukesha, Cooper, Cummins, Fairbanks Morse, National Energy Technology Laboratory, Sandia National Laboratory, Mississippi Valley Gas, Rocky Research, York International, Southwest Gas, So Cal Gas, Energy Concepts, Semco, Trane, Kathabar, Englehard, National Energy Renewable Laboratory, American Gas Cooling Center and Gas Technology Institute, and NRECA, Burns and McDonnell, NiSource Energy Technologies.	Gas, Energy Concepts, Semco, Trane, Kathabar, Englehard, National Energy Renewable Laboratory, American Gas Cooling Center, Gas Technology Institute, NRECA, Burns and McDonnell, and NiSource Energy Technologies.	Technology Laboratory, Sandia National Laboratory, Mississippi Valley Gas, Rocky Research, York International, Southwest Gas, So Cal Gas, Energy Concepts, Semco, Trane, Kathabar, Englehard, National Energy Renewable Laboratory, American Gas Cooling Center and Gas Technology Institute, NRECA, and NiSource Energy Technologies.
	Technical/Program Management Support Included activities which are integral part of the distributed generation technology development program. Representative activities included preparation of program, strategic plans, and operating plans; R&D feasability studies and trade-off analysis; evaluation of the impact of new legislation on R&D programs; analysis of energy issues pertinent to the R&D program; identification of performance methodologies	Technical/Program Management Support Include activities which will be an integral part of the distributed generation technology development program. Representative activities include preparation of program, strategic plans, and operating plans; R&D feasability studies and tradeoff analysis; evaluation of the impact of new legislation on R&D programs; analysis of energy issues pertinent to the R&D program; development of communication	Technical/Program Management Support  Will include activities which will be an integral part of the distributed generation technology development program. Representative activities will include preparation of program, strategic, and operating plans; R&D feasability studies and trade-off analysis; evaluation of the impact of new legislation on R&D programs; analysis of energy issues pertinent to the R&D program; development of communication tools;
Distributed	(including GPRA); collected data to	tools; identification of performance	identification of performance

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003			
Generation Technology Development (Cont'd)	assess program and project performance, efficiency and impacts; and development of performance agreements with management.  Specific examples included completion of Advanced Reciprocating Engine Plan, Communications and Sensors for Distributed Energy Resources Program Plan, Distributed Energy Resources Strategic Plan, and Distributed Energy Resources Annual Operating Plan. (\$480)	measures and methodologies (including GPRA); data collection to assess program and project performance, efficiency and impacts; and development of performance agreements with management. (\$480)	measures and methodologies (including GPRA); data collection to assess program and project performance, efficiency and impacts; and development of performance agreements with management. (\$480)			
Total, Distributed Generation Technology Development	\$43,903	\$55,896	\$42,896			
End-Use Systems Integration and Interface	TRANSFER FROM: Industry Sector/ Industries of the Future (Crosscutting)/ Distributed Generation/ Industrial Distributed Generation					
End-Use Systems	AND					

Program Activity FY 2001 FY 2002 FY 2003

Integration and Interface (Cont'd)

TRANSFER FROM: Industry Sector/ Industries of the Future (Crosscutting)/ Technical Assistance/ Best Practices Program

## Distributed Energy Systems Applications Integration

Continued supporting R&D solicited for direct support to utility/industrial teams for addressing power generation/ cogeneration issues identified by the industry. Initiated a real time load control monitoring system in cooperation with the steel industry. Comprehensive assessment of existing and new distributed generation installations at industrial and commercial sites to determine reliability/availability. (\$948)

## Distributed Energy Systems Applications Integration

Continue supporting R&D solicited for direct support to utility/industrial teams and state partners in addressing power generation/cogeneration reliability issues, and mechanical drive applications. Perform comprehensive assessment of existing and new distributed generation installations at industrial and commercial sites to determine reliability/availability and benefits. These assessments include advanced hybrid technologies and options. Results from assessments is disseminated as information and education materials among potential consumers.

Initiate projects to encourage widespread adoption and implementation of distributed energy resources, including combined

## **Distributed Energy Systems Applications Integration**

Will continue partnerships with industry consortiums (commercial buildings, merchant stores, light industrial) to identify promising applications for distributed energy technologies and systems, and will initiate validation projects to quantify the potential energy and emissions benefits. Will begin field testing of technologies (including combined heat and power systems) to validate anticipated benefits to data processing and telecommunications industries that have special ultra-high reliability and power quality needs that can only be met by implementing distributed energy resources. Will continue support of R&D to utility/industrial teams and state partners in addressing power generation/cogeneration reliability

<b>Program Activity</b>	FY 2001	FY 2001 FY 2002			
End-Use Systems Integration and Interface (Cont'd)		cooling, heating and power in the data processing and telecommunications industries.	issues, and mechanical drive applications.		
interface (Cont u)		These industries have special ultrahigh reliability and power quality needs for which only distributed energy resources can supply.	Will support solicitations to address development of open, scalable communication and control systems required to aggregate and control		
		Initiate partnerships with industry consortiums (grocery chains, fast food restaurants, retail stores) to identify promising application for distributed energy technologies. (\$4,950)	the operation of large numbers of DER systems from different vendors while integrating with utility control and protection systems. (\$7,338)		
	Carling Harding and Dames	Cooling, Heating and Power	Carlina Hardina and Danier		
	Cooling, Heating and Power (CHP) Integration Recent technological advances have	(CHP) Integration Support the joint DOE-Industry goal of doubling the amount of Cooling,	Cooling, Heating and Power (CHP) Integration Will support the joint DOE-Industry		
	made Cooling, Heating, and Power (CHP) systems more efficient and	Heating, and Power (CHP) capacity in the U.S. by 2010, an increase of	goal of doubling the amount of Cooling, Heating, and Power		
	less expensive. The energy efficiency of CHP systems can	46 gigawatts of electricity. Conduct CHP technology assessments and	(CHP) capacity in the U.S. by 2010, an increase of 46 gigawatts		
	exceed 80 percent. Additionally, CHP has been identified as one of the most near term cost-effective	provide the technical tools and expertise necessary for documenting how the successes of CHP systems	of electricity. Will continue to raise CHP awareness and assist in eliminating the barriers to CHP		
	sections to reduce global carbon emissions. The effort supported the	can benefit the industrial, building, and district energy sectors. Results	installations. Will continue CHP technology assessments and provide		
	joint DOE-Industry goal to double	increase awareness and confidence	the technical tools and expertise		

Program Activity	FY 2001	FY 2002	FY 2003
End-Use Systems Integration and Interface (Cont'd)	the amount of CHP capacity in the U.S. by 2010, equal to 46 gigawatts of electricity and reduce air pollution by 40 million metric tons of carbon. CHP technical assistance activities continued to focus on addressing the barriers conducting CHP technology assessments and providing the technical tools and expertise necessary to demonstrate to industry how successful CHP technologies, and to increase confidence in these technologies. Industry completed	in CHP technologies and demonstrated their benefits. (\$1,000)	necessary for documenting how the successes of CHP systems can benefit the industrial, building, and district energy sectors. Building on successful assessment results, will implement the most promising projects. These projects will increase awareness of and confidence in CHP technologies including their benefits in efficiency and emissions.
	technology and barrier elimination roadmaps. (\$998)		rejected from the making of electricity, high efficiencies can be achieved and packaged technologies can be integrated and optimized for end-use application.
			Will continue contract support with Industry funding (award) to design, and develop new integrated plug and play packages which combine power generation technologies such a gas turbines, microturbines and reciprocating engines with thermally activated technologies such as chillers and desiccant systems along with the necessary control

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
End-Use Systems Integration and Interface (Cont'd)	Participants include: State Energy Offices, Onsite Energy, Washington State University, Oak Ridge National Laboratory, Northeast Midwest, ACEEE, NYSERDA, So Cal Gas, Verizon, Gas Technology Institute, Industrial Center, Salt River, Onsite Sycom, Sandia National Laboratory, DOD, Northern Indiana Public Service Company, Paramount Chemical, Syska Hennessy.	Participants include: State Energy Offices, Onsite Energy, Washington State University, Oak Ridge National Laboratory, Northeast Midwest, ACEEE, NYSERDA, So Cal Gas, Verizon, Gas Technology Institute, Industrial Center, Salt River, Onsite Sycom, Northern Indiana Public Service Company, Paramount Chemical, Syska Hennessy.	technologies. Testing of prototype packages will begin under laboratory conditions before proceeding to commercial field test sites. Transferred from Distributed Generation Technology Development. (\$12,000)  Participants include: State Energy Offices, Onsite Energy, Washington State University, Oak Ridge National Laboratory, Northeast Midwest, ACEEE, NYSERDA, So Cal Gas, Verizon, Gas Technology Institute, Industrial Center, Salt River, Onsite Sycom, Northern Indiana Public Service Company, Paramount Chemical, Syska Hennessy, Burns and McDonnell, Burns and McDonnell, Solar Turbines Inc., Broad USA, Capstone, Gas Technology Institute Waukesha, Trane, Honeywell Laboratories, Ingersoll Rand, NiSource Energy Technologies, United Technologies Research Center, DTE Energy Technologies, Carrier Corporation.
End-Use Systems Integration and	Technical/Program Management Support	Technical/Program Management Support	Technical/Program Management Support

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003		
Interface (Cont'd)	Included activities which were integral part of the distributed generation technology development program. Representative activities included preparation of program, strategic plans, and operating plans; R&D feasability studies and tradeoff analysis; evaluation of the impact of new legislation on R&D programs; analysis of energy issues pertinent to the R&D program; identification of performance measures and methodologies (including GPRA); data collection to assess program and project performance, efficiency and impacts; and development of performance agreements with management. (\$50)	Includes activities which are integral part of the distributed generation technology development program. Representative activities include preparation of program, strategic plans, and operating plans; R&D feasability studies and trade-off analysis; evaluation of the impact of new legislation on R&D programs; analysis of energy issues pertinent to the R&D program; identification of performance measures and methodologies (including GPRA); data collection to assess program and project performance, efficiency and impacts; and development of performance agreements with management. (\$50)	Will include activities which are integral part of the distributed generation technology development program. Representative activities will include preparation of program, strategic plans, and operating plans; R&D feasability studies and tradeoff analysis; evaluation of the impact of new legislation on R&D programs; analysis of energy issues pertinent to the R&D program; identification of performance measures and methodologies (including GPRA); data collection to assess program and project performance, efficiency and impacts; and development of performance agreements with management. (\$50)		
Total, End-Use Systems Integration and Interface	<b>\$1,996</b>	\$6,000	\$19,388		
TOTAL, DISTRIBUTED ENERGY RESOURCES	\$45,899	\$61,896	\$62,284		

## POWER TECHNOLOGIES (Dollars in Thousands)

#### MANAGEMENT AND PLANNING

### I. Mission Supporting Goals and Objectives:

The Management and Planning function supports the Office of Power Technologies (OPT) by providing sector-level analysis, assessment, evaluation, and planning functions for the Distributed Energy Resources (DER) Program.

Effective management requires efficient organizational design, adequate human resources, sufficient and high quality information and excellent communication both within the organization and with outside parties. Moreover, understanding the potential for increasing the penetration of energy-efficient and clean energy technologies in the power sector and for achieving the correct balance requires a solid analytical foundation. The Management and Planning function provides this foundation the evaluation, planning, analysis, and program direction functions necessary to effectively guide and support all DER programs.

Nine full-time equivalent (FTE) positions, including five at Headquarters and four in the Field, provide program management and support for the Power Technologies program. This program also includes Technical Evaluation, Analysis, and Planning.

## II. A. Funding Table: MANAGEMENT AND PLANNING

Program Activity FY 2001 Comparable			FY 2002 Comparable		FY 2003 Request		\$ Change		% Change
Evaluation and Planning	\$	349	\$	322	\$	100	\$	(222)	-68.9%
Program Direction	\$	1,098	\$	1,628	\$	1,520	\$	(108)	-6.6%
Total, Management and Planning	\$	1,447	\$	1,950	\$	1,620	\$	(330)	-16.9%

## II. B. Laboratory and Facility Funding Table: MANAGEMENT AND PLANNING

	FY 2001 Comparable		FY 2002 Comparable		FY 2003 Request		\$ Change		% Change
All Other	\$	1,447	\$	1,950	\$	1,620	\$	(330)	-16.9%
Total, Management and Planning	\$	1,447	\$	1,950	\$	1,620	\$	(330)	-16.9%

## **III. Performance Summary of Program Activities**: MANAGEMENT AND PLANNING

Activity	FY 2001	FY 2002	FY 2003		
Evaluation and Planning	TRANSFER FROM: Building Technology, State, and Community Sector & Industry Sector Management and Planning				
	Evaluation and Planning Provided technical evaluation, analysis and planning, including development of quality metrics for distributed energy resources, identification of performance measures and methodologies (including GPRA); data collection to assess program and project performance, efficiency and impacts; and development of performance agreements with management. Regionally, assessed and evaluated distributed energy resources, benefits and impact. (\$349)	Evaluation and Planning Provide technical evaluation, analysis and planning, including development of quality metrics for distributed energy resources, identification of performance measures and methodologies (including GPRA); data collection to assess program and project performance, efficiency and impacts; and development of performance agreements with management. Regionally, assess and evaluate distributed energy resources, benefits and impact. (\$322)	Evaluation and Planning Will provide technical evaluation, analysis and planning, including development of quality metrics for distributed energy resources, identification of performance measures and methodologies (including GPRA); data collection to assess program and project performance, efficiency and impacts; and development of performance agreements with management. Will regionally, assess and evaluate distributed energy resources, benefits and impact. (\$100)		
Total, Evaluation and Planning	\$349	\$322	\$10		

## III. Performance Summary of Program Activities: MANAGEMENT AND PLANNING (Cont'd)

Activity	FY 2001	FY 2002	FY 2003			
Program Direction	TRANSFER FROM: Building Technology, State, and Community Sector & Industry Sector Management and Planning					
	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:			
	11.9 Personnel compensation \$ 696 12.1 Civilian personnel benefits \$ 174	11.9 Personnel compensation \$ 1082 12.1 Civilian personnel benefits \$ 298 21.0 Travel and transportation of persons \$ 68 25.0 Other contractual services \$ 180	11.9 Personnel compensation \$1095 12.1 Civilian personnel benefits \$300 21.0 Travel and transportation of persons \$75 25.0 Other contractual services \$50			
	21.0 Travel and transportation of persons \$ 60	Salaries, Travel, and Benefits	Salaries, Travel, and Benefits			
	25.0 Other contractual services \$ Galaries, Travel, and Benefits	Provide funds for salaries, benefits, and travel (including normal increases in both salaries salaries and	The request will provide funds for salaries, benefits, and travel (including normal increases in both			
	Provided funds for salaries, benefits, and travel (including normal increases in both salaries and benefits) to support usage of 11 FTEs needed to conduct and monitor research, development, and other activities associated with various power technologies, at Headquarters (5) and in the field (6) (Budgeted Headquarters 5, field 3 and total 8). (\$930)	benefits) to support 8 FTEs needed to conduct and monitor research, development, and other activities associated with various power technologies, at Headquarters (5) and in the field (3). (\$1448)	salaries and benefits) to support 10 FTEs needed to conduct and monitor research, development, and other activities associated with various power technologies, at Headquarters (5) and in the field (5). (\$1,470)			

III. Performance Summary of Program Activities: MANAGEMENT AND PLANNING (Cont'd)

Activity	FY 2001	FY 2002	FY 2003
	TRANSFER FROM: Power		
Program	Technologies, Management and	<b>Management Support Services</b>	Management Support Services
Direction	Planning		
(Cont'd)		Consistent with other DOE programs	Consistent with other DOE
	<b>Management Support Services</b>	under the jurisdiction of the Interior and Related Agencies Appropriations	programs under the jurisdiction of the Interior and Related Agencies
	Consistent with other DOE	Committees, the Energy	Appropriations Committees, the
	programs under the jurisdiction of	Conservation programs provide	Energy Conservation programs will
	the Interior and Related Agencies	funding for Management Support	provide funding for Management
	Appropriations Committees, the	Services, which includes activities	Support Services, which includes
	Energy Conservation programs	such as improving the effectiveness,	activities such as improving the
	provided funding for Management	efficiency, and economy of	effectiveness, efficiency, and
	Support Services, which included	management and general	economy of management and
	activities such as improving the	administrative services. These	general administrative services.
	effectiveness, efficiency, and	activities are critical to the planning,	These activities are critical to the
	economy of management and	formulation, and execution of the	planning, formulation, and execution
	general administrative services.	Energy Conservation programs.	of the Energy Conservation
	These activities are critical to the	(\$180)	programs. (\$50)
	planning, formulation, and execution		
	of the Energy Conservation		
	programs. (\$168)		
Total, Program			
Direction	\$1,098	\$1,628	\$1,520

## III. Performance Summary of Program Activities: MANAGEMENT AND PLANNING (Cont'd)

Activity	FY 2001	FY 2002	FY 2003
TOTAL,			
MANAGE-			
MENT AND			
PLANNING	\$1,447	\$1,950	\$1,620

# DEPARTMENT OF ENERGY FY 2003 CONGRESSIONAL BUDGET REQUEST ENERGY EFFICIENCY AND RENEWABLE ENERGY ENERGY CONSERVATION

(Tabular dollars in thousands, Narrative in whole dollars)

#### POLICY AND MANAGEMENT

#### MISSION SUPPORTING GOALS AND OBJECTIVES

#### Mission

The Energy Conservation Policy and Management budget component provides executive management, information, analysis, and oversight required for efficient and effective implementation of the Energy Efficiency program. In addition, Policy and Management supports six Regional Offices, and the Golden Field Office in Colorado, which implement DOE Energy Efficiency and Renewable Energy (EERE) activities regionally and facilitate delivery of applied R&D and grant programs to Federal, regional, State, and local customers.

### **Program Goal and Benefits**

Policy and Management provides staffing, resources, and management support for EERE sector offices (Headquarters), the Golden Field Office, EERE's Regional Offices, the International Market Development Program (IMDP), and the Information and Communications Program. EERE Staffing and Contractual Services are described at the end of this section.

#### Headquarters

Requested funds support the staff and resources necessary for efficient and effective corporate management, oversight, and leadership. EERE faces four major institutional management challenges: (1) EERE programs are numerous and diverse, making management and integration at the corporate level very complex; (2) EERE complies with multiple external requirements, such as GPRA, that require a broad spectrum of information to be delivered at different times of the year; (3) EERE's customer base is very fragmented and therefore information preparation and delivery is complicated; and (4) the EERE R&D and deployment programs depend heavily on contractors managing subcontractors,

sometimes even with the potential for conflict of interest, because they rely on national labs (M&O contractors) to serve as the program and project managers for many programs. Prior to 1999, EERE received criticism from both external and internal sources concerning its business practices and overall management. In addressing these criticisms, the Assistant Secretary obtained independent evaluations on the effectiveness of management within EERE, including a review by the National Academy of Public Administration (NAPA). One criticism common to all of the independent reviews was that EERE did not have a systematic, disciplined approach to the fundamental business of planning, budget development, program execution, and program evaluation.

In response to outside recommendations and its own continuing self-assessments, EERE has initiated numerous reforms to address these identified shortcomings, including:

- Implementation of a Strategic Management System in January 2000 that provides an integrated corporate approach to planning, budget development, budget execution, and program evaluation across the whole organization.
- Issuing an EERE-wide Strategic Plan in March 2000 that set forth goals, objectives, and strategies for the entire organization.
- Implementing new business management systems in FY 2001 that provide managers with critical desktop tools to track technical progress against costs and schedules.
- Initiating improved procurement planning during FY 2001.
- Completing internal reorganizations, including the establishment of a Distributed Energy Office to improve program delivery and address concerns later highlighted by the administration's May 2001 National Energy Policy.
- Initiating several efforts to clarify the roles and responsibilities of EERE's Headquarters, field and laboratory organizations. In addition, the first Director of Field Management and Operations was hired.

This Policy and Management budget will help EERE focus on continued realization of Energy Conservation goals and objectives while implementing the President's management reform agenda. Five key concerns from that Presidential agenda are: human capital, an expanded electronic government, more competitive sourcing, improved financial performance, as well as better integration of budgeting with performance targets and results.

The Office of Planning, Budget, and Management (PBM) has six functional areas that support the effective and efficient operations of the EERE enterprise:

*Planning, Analysis, and Evaluation*. Provides relevant and timely planning and analysis to support executive decision-making in the areas of resource allocation, budget formulation, performance measurement, and technology assessment. It also provides analyses of performance, planning, and budget issues. The Planning office manages the development and evaluation of EERE's annual

Government Performance and Results Act (GPRA) metrics and updates of the EERE Strategic Plan; coordinates the inclusion of program performance measures in the EERE budget; represents EERE in the development of the annual DOE Performance Plan, Secretary's Performance Agreement with the President, and Accountability Report, DOE's Strategic Plan, the biannual National Energy Policy Plan, and other DOE or administration documents. This functional area coordinated national programmatic reviews which were recommended by Vice President Cheney's May 2001 National Energy Policy Report. Staff from most of the component offices of PBM were engaged in a rigorous review of EERE's programs which lead to the development of a new Strategic Plan.

**Budgeting and Financial Management**. Provides timely and effective budget formulation, execution and analytical support based upon sound general business principles, as well as specific administration and congressional direction.

*Outreach*. Communicates the EERE mission, program plans, accomplishments, and technology capabilities to a variety of stakeholder audiences including Congress, the public, educational institutions, industry, and other government and non-government organizations. The Outreach office writes testimony and prepares briefing books; coordinates answers to Congressional questions (between 600-1000 per year); prepares speeches and presentations by the Assistant Secretary and others when requested; manages the Energy Efficiency and Renewable Energy Network web site, (EREN), and the Energy Efficiency and Renewable Energy Clearinghouse, (EREC); and coordinates reviews of EERE-related statements by other DOE offices and Federal agencies.

*Human Resources and Organization Management.* Aligns EERE's human resources to achieve optimal program efficiency and effectiveness, while ensuring that the contribution of each staff member is valued and recognized by having management and staff work together to define each person's role, and providing the proper support, training, and tools to fulfill that role.

*Information Technology.* Promotes the use of advanced information technology to revolutionize EERE's operating environment by: (1) streamlining business processes; (2) improving stakeholder and public access to individual R&D programs; (3) using common information protocols to improve the accessibility of information and ease data validation; and (4) making systems easier to use.

*Field Management and Operations*. Institutionalizes a corporate approach to field management and reporting by improving collaboration, clearly delineating and defining the roles, responsibilities, and authorities among all participants, and embracing environmental safety and health concerns. In addition, the organization carries out EERE's acquisition/procurement process, ensuring that it (1) is clearly defined; (2) is consistent across EERE Headquarters and Field Organizations; (3) complies with DOE policies and practices; (4) includes early needs assessment and ongoing accountability; (5) clarifies office authorities; and (6) properly acquires goods and services in a timely and efficient manner.

#### **Golden Field Office**

The Golden Field Office (GO), with 37 Full-Time Equivalents (FTE) budgeted for FY 2003, supports EERE through field project management of R&D partnerships, laboratory contract administration, and a variety of professional, technical, and administrative functions. Federal staff expenditures are funded by both of EERE's Energy and Water Development and Energy Conservation appropriations. GO provides management support for approximately 450 agreements and some 300 active projects in nearly every State and in several other nations to support the EERE Offices of Buildings, Federal Energy Management, Industry, Power, and Transportation Technologies. Key activities include:

- Administering the management and operating contract for the National Renewable Energy Laboratory (NREL).
- Managing the Federal Energy Management Program (FEMP) Super Energy Savings Performance Contracts and serving as the focal point for FEMP finance and procurement activities.
- Providing procurement, legal, business management, information resource management, and technical support to the six EERE Regional Offices.
- Supporting the Inventions and Innovations Program and the National Industrial Competitiveness through Energy, the Environment and Economics Program (NICE<sup>3</sup>).
- Partnering with industry and academia in joint R&D projects to further develop and facilitate delivery of applied R&D.

## **Regional Offices**

EERE's six Regional Offices (ROs), located in Atlanta, Boston, Chicago, Denver, Philadelphia, and Seattle, catalyze the implementation of energy-efficient and renewable energy strategies at the State and local level by working with States and communities to promote EERE programs; identifying and engaging community and State partners; and integrating EERE programs with public and private sector activities. The ROs, with 119 Full-Time Equivalents (FTE) budgeted for FY 2003, represent almost a quarter of EERE's workforce, and administer nearly \$0.3 billion in program funding to States, localities, and regional organizations.



The ROs role in administering grants, managing projects, and delivering programs that accelerate market penetration of energy efficiency and renewable energy technologies, plays a key role in implementing EERE's mission. Key activities include:

- Administering EERE's principal technology deployment grant programs, including the Weatherization Assistance Program, the State Energy Program, and the Regional Biomass Energy Program.
- Delivering EERE's principal technical assistance programs, including Clean Cities, Rebuild America, and the Federal Energy Management Program.
- Serving as EERE's liaison to State Energy Offices, other State agencies, regional organizations of the National Governors' Association, and other stakeholders involved in energy and environmental quality issues.
- Providing EERE's national program managers at Headquarters with customer feedback on how to make their programs more effective and efficient.
- Supporting and helping deliver special initiatives of the President, Secretary, and Assistant Secretary.
- Creating local, State, and regional partnerships—and leveraging local, State, and regional resources—to maximize the impact of EERE's technologies and programs.
- Helping EERE's end-use sectors deliver their programs to State and local stakeholders.

The following is a crosscut of FY 2003 Regional Office budget estimates by EERE's major Energy Conservation programs: the Federal Energy Management Program (FEMP); Building Technology, State and Community Sector; the Industrial Sector, Power Technologies/Distributed Energy Resources (DER), the Transportation Sector; as well as support activities.

# FY 2003 REGIONAL OFFICE BUDGET ESTIMATES (Dollars in Thousands)

Regional <u>Offices</u>	<u>FEMP</u>	<u>Buildings</u>	<u>Industrial</u>	<u>Power</u>	<u>Transportation</u>	Crosscutting	Mgt & Admin	<u>TOTALS</u>
Atlanta	324	703	270	325	271	378	433	2,704
Boston	176	681	134	272	180	219	568	2,230
Chicago	226	822	103	617	103	51	134	2,056

Denver	331	957	171	270	268	512	689	3,198
Philadelphia	290	724	217	241	241	-	699	2,412
Seattle	283	707	117	256	269	325	458	2,415
TOTALS	1,630	4,594	1,012	1,981	1,332	1,485	2,981	15,015

## **International Market Development Program**

This program provides necessary funding to continue Asia Pacific Economic Cooperation (APEC) participation, and membership in the International Energy Agency's (IEA) Energy and Environmental Technology Information Centers (EETIC). These important diplomatic activities seek to obtain and share information on market opportunities and cutting edge technologies being demonstrated by other countries. Assistance from Energy Efficiency and Sustainable Development Centers (Centers) provide valuable regionally focused market and contact information to U.S. industry. Activities formerly undertaken by the Committee on Energy Efficiency Commerce and Trade (COEECT) have transitioned to public/private partnerships established in accordance with the strategy from the Clean Energy Technology Export (CETE) initiative. Continuing actions include: (a) holding workshops and seminars on U.S. technologies; (b) developing information systems and databases on efficient technologies; (c) developing region-specific product and service registers and vendor lists; (d) and forming and supporting region-specific private sector liaison groups for U.S. energy efficiency technology cooperation.

### **Information and Communications Program**

The Information and Communications Program disseminates information about the benefits of energy efficiency and renewable energy technologies to stakeholders and consumers at the Federal, State, local, and individual level. The objectives of the program are: (1) provide accurate information on energy efficiency and renewable energy technologies to the public so EERE's customers can make informed decisions in the marketplace, resulting in an increase in the adoption of EERE efficiency technologies and efficient energy practices; and (2) raise the general awareness of state-of-the-art in energy efficiency technologies and practices. This is accomplished through a variety of mechanisms including the Energy Efficiency and Renewable Energy Clearinghouse (EREC) and the Energy Efficiency and Renewable Energy Network (EREN).

EREC is the nation's primary source for free, unbiased information about energy efficiency and renewable energy technologies. EREC has responded to over half a million inquiries since 1994 through its toll-free number (1-800-DOE-EREC), fax, mail, e-mail, and online "ask an energy expert" forum. Additionally, in FY 2000, EREC stored close to 1 million information products for EERE, maintained 1,500 different product titles listed in its inventory, disseminated a total of 241,196 information products for EERE end-use sectors, and responded to over 60,000 inquiries for information, while maintaining an over 95 percent customer satisfaction rating.

EREN is EERE's comprehensive technology directory and gateway to EERE offices and programs. As the leading Internet directory of energy efficiency and renewable energy resources (located at <a href="www.eren.doe.gov">www.eren.doe.gov</a>), EREN targets information for energy professionals and the general public. In FY 2000, the network averaged over 9 million "hits" per month.

## **Staffing**

The organization has been actively recruiting from industry, universities, and other DOE offices or Federal agencies, as well as offering positions to talented new graduates. These efforts are beginning to pay off as EERE benefits from the inflow of fresh and diverse ideas and perspectives.

The following chart summarizes the staffing supporting the Policy and Management line-item:

FTEs	FY2001 Actuals	FY 2002 Budgeted	FY 2003 Budgeted
Headquarters	58	58	61
Golden Field Office	36	34	37
Regional Offices	119	124	119
Totals	213a/	216	217

a/ For comparability with FY 2002 and FY 2003 columns, budgeted FY 2001 FTE are Headquarters 59, Golden 30, Regional Offices 131, and total 220.

#### **Contractual Services**

Contractual Services for program management at Headquarters, the Golden Field Office, and Regional Offices include all landlord activities such as rent, utilities, communications, printing, supplies and materials, and transportation. In addition, Headquarters and Field contractor staff provide independent expertise to assist with technical and financial analyses in a cost effective manner. This expertise is required in the areas of: (1) program evaluation and analysis; (2) performance measurement to enhance the R&D productivity; (3) information exchange with customers and stakeholders; and (4) technical analysis of policies, standards, and markets.

# DEPARTMENT OF ENERGY FY 2003 CONGRESSIONAL BUDGET REQUEST ENERGY CONSERVATION (Dollars in Thousands)

#### POLICY AND MANAGEMENT

#### PROGRAM FUNDING PROFILE

		FY 2001 omparable	FY 2002 Comparable			FY 2003		
Program Activity	Appropriation		A	ppropriation		Request	\$ Change	% Change
Policy and Management Operating Expenses	\$	46,046	\$	46,415		\$42,706b/	\$ -3,709	-8.0%
TOTAL		\$46,046a/	\$	46,415	\$	42,706	\$ -3,709	-8.0%

### Summary

Operating Expenses	\$ 46,046	\$ 46,415	\$ 42,706	\$	-3,709	-8.0%
Total Program	\$ 46,046	\$ 46,415	\$ 42,706	\$	-3,709	-8.0%
Total Excluding Full Funding for Federal Retirement	\$ 43,274	\$ 43,750	\$ 40,053	\$	-3,697	-8.5%
Staffing (FTEs)	Actual	Budgeted	Budgeted			
HQ FTEs	51	58	61			
Field FTEs	 150	158	156	_		
Total FTEs	 201c/	216	217	_		

#### Authorizations:

P.L. 94-163, "Energy Policy and Conservation Act" (EPCA) (1975)

P.L. 94-385, "Energy Conservation and Production Act" (ECPA) (1976)

P.L. 95-91, "Department of Energy Organization Act" (1977)

P.L. 95-618, "Energy Tax Act of 1978"

P.L. 95-619, "National Energy Conservation Policy Act" (NECPA) (1978)

P.L. 96-294, "Energy Security Act" (1980)

P.L.102-486, "Energy Policy Act of 1992"

b/ The FY 2001 and FY 2002 columns of the FY 2003 Congressional Request include funding in the amounts of \$2,772,000 and \$2,665,000 respectively, for the Government's share of increased costs associated with pension and annuitant health care benefits. These funds are comparable to FY 2003 funding of \$2,653,000. (Note: data is presented on a comparable basis as if the legislation had been enacted and implemented in FY 2001). c/ Actual Full-Time Equivalent (FTE) usage is cited for FY 2001 while budgeted staffing numbers are displayed in the FY 2002 and FY 2003 columns. For comparability purposes, budgeted FY 2001 FTE were Headquarters 59, Field 161 and total 220.

<sup>&</sup>lt;sup>a</sup>/ Reflects adjustment of \$-95,000 for Omnibus Rescission, P.L. 106-554.

## DEPARTMENT OF ENERGY FY 2003 CONGRESSIONAL BUDGET REQUEST ENERGY CONSERVATION

(Dollars in Thousands)

## POLICY AND MANAGEMENT

## **SUMMARY OF CHANGES**

		Y 2003 Request
FY 2	002 Comparable	\$ 46,415
Non-	Discretionary	
-	Increase for Federal Pay Raise and Locality Pay	430
-	Increase for Working Capital Fund	18
-	Increase for Other (Rent for Regional Offices)	43
FY 2	003 Base	\$ 46,906
Polic	y and Management:	
-	Contractual Services (HQ) - 6 percent reduction in contract services	-677
-	Salaries and Related Expenses (HQ) - 2 percent decrease in salaries and related expenses	-140
-	Contractual Services (Golden Field Office) - 12 percent increase in contract services	263
-	Salaries and Related Expenses (Golden Field Office) - 9 percent reduction in salaries and related expenses	-337
-	Contractual Services (Regional Offices) - 25 percent decrease in contract services	-1,184
-	Contractual Services (Regional Offices) - 16 percent reduction in total salaries and related expenses	-2,125
FY 2	003 Budget Request	\$ 42,706

## II. A. Funding Table: POLICY AND MANAGEMENT

Program Activity	F	Y 2001	F	Y 2002	F	Y 2003	\$ Change		% Change	
Headquarters										
Salaries and Related Expenses	\$	6,490	\$	6,750	\$	6,747	\$	-3	-0.0%	
Full Funding for Federal Retirement	\$	2,772	\$	2,665	\$	2,653	\$	-12	-0.5%	
Subtotal Salaries and Related Expenses	\$	9,262	\$	9,415	\$	9,400	\$	-15	-0.2%	
Contractual Services	\$	10,377	\$	10,585	\$	9,926	\$	-659	-6.2%	
Subtotal Headquarters	\$	19,639	\$	20,000	\$	19,326	\$	-674	-3.4%	
Golden Field Office										
Salaries and Related Expenses	\$	3,315	\$	3,960	\$	3,697	\$	-263	-6.6%	
Contractual Services	\$	2,453	\$	2,205	\$	2,468	\$	263	11.9%	
Subtotal Golden Field Office	\$	5,768	\$	6,165	\$	6,165	\$	0 .	0.0%	
Regional Offices										
Salaries and Related Expenses	\$	12,428	\$	13,323	\$	11,429	\$	-1,894	-14.2%	
Contractual Services	\$	4,061	\$	4,727	\$	3,586	\$	-1,141	-24.1%	
Subtotal Regional Offices	\$	16,489	\$	18,050	\$	15,015	\$	-3,035	-16.8%	
International Market Development Program	\$	2,600	\$	650	\$	650	\$	0	0.0%	
Information and Communications Program	\$	1,550	\$	1,550	\$	1,550	\$	0	0.0%	
Total, Policy and Management	\$	46,046	\$	46,415	\$	42,706	\$	-3,709	-8.0%	

## **II. B. Laboratory and Facility Funding Table**: POLICY AND MANAGEMENT

Program Activity		FY 2001		FY 2002		FY2003		Change	% Change	
Golden Field Office	\$	5,768	\$	6,165	\$	6,165	\$	0	0.0%	
Regional Offices	\$	16,489	\$	18,050	\$	15,015	\$	-3,035	-16.8%	
All Other	\$	23,789	\$	22,200	\$	21,526	\$	-674	-3.0%	
Total, Policy and Management	\$	46,046	\$	46,415	\$	42,706	\$	-3,709	-8.0%	

Program Activity	FY 2001	FY 2002	FY 2003
Headquarters - Salaries and Related Expenses	Supported 51 actual FTE usage for the continued executive management activities at HQ including the implementation of Workforce 21 plans (Budgeted 59 FTE).  Activities to be continued include: liaison with senior officials in Congress, the White House, OMB, and other agencies as well as State and local governments, and the private sector.	The FY 2002 budget supports 58 FTEs to provide for the continued executive management activities at HQ including the implementation of Workforce 21 plans. Activities to be continued include: liaison with senior officials in Congress, the White House, OMB, and other agencies as well as State and local governments, and the private sector.	The FY 2003 Request supports 61 FTEs to provide for the continued executive management activities at HQ including the implementation of Workforce 21 plans. Activities to be continued include: liaison with senior officials in Congress, the White House, OMB, and other agencies as well as State and local governments, and the private sector.
	These activities also provided for the continued formulation and operation of the EERE programs including: establishing goals and objectives for the programs; assessing performance and effectiveness; supporting the FY 1992 Energy Policy Act requirements and the Government Performance and Results Act, development of a comprehensive plan that will focus on building and sustaining a talented and diverse workforce of R&D Technical Managers. (\$6,490)	These activities also provide for the continued formulation and operation of the EERE programs including: establishing goals and objectives for the programs; assessing performance and effectiveness; and supporting the FY 1992 Energy Policy Act requirements and the Government Performance and Results Act (\$6,750)	These activities also provide for the continued formulation and operation of the EERE programs including: establishing goals and objectives for the programs; assessing performance and effectiveness; and supporting the FY 1992 Energy Policy Act requirements and the Government Performance and Results Act (\$6,747)
	For comparison purposes, there is a \$2,772,000 budget adjustment for full funding of federal employee retirement. (\$2,772).	For comparison purposes, there is a \$2,665,000 budget adjustment for full funding of federal employee retirement. (\$2,665)	This budget also reflects a Bush administration initiative which reallocates funds for accruing Civil Service Retirement System (CSRS) and post retirement health benefits

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Headquarters - Salaries and Related Expenses (Cont'd)			of current federal employees to individual agency program budgets. An added \$2,653,000 has been included in the Energy Conservation-Policy and Management budget for these benefits. (\$2,653)
Total, Headquarters -	\$9,262	\$9,415	\$9,40
Salaries and	The following is a breakdown of	The following is a breakdown of	φ2,40
Related Expenses	the funding by Object Class:	the funding by Object Class	The following is a breakdown of the funding by Object Class:
	11.9 Personnel compensation \$	11.9 Personnel compensation \$	
	4,850 12.1 Civilian personnel benefits \$	5,050 Civilian personnel benefits \$ 1,345	11.9 Personnel compensation \$ 5,052
	1,290	Federal retirement adjustment \$	12.1 Civilian personnel benefits \$
	Federal retirement adjustment \$2,772	2,665	1,345
	21.0 Travel and transportation of	21.0 Travel and transportation of	Federal retirement adjustment \$
	persons \$ 350	persons \$ 355	2,653
	22.0 Transportation of things \$	22.0 Transportation of things \$	21.0 Travel and transportation of persons \$ 350
	25.0 Other contractual services \$10,377	25.0 Other contractual services \$10,585	persons \$ 350 22.0 Transportation of things \$ 0 25.0 Other contractual services \$ 9,926
Headquarters -	Working Capital Fund (WCF)	Working Capital Fund (WCF)	Working Capital Fund (WCF)
Contractual			
Services	A total of \$4,725 for the WCF supported all administrative services for headquarters employees such as: rent,	The budget supports \$4,645 for WCF activities such as administrative services, rent (\$3,634), automated office	The request supports \$4,663 for WCF activities such as administrative services, rent (\$3,664), automated office support,

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Headquarters - Contractual Services (Cont'd)	automated office support, contract close out, telephone services, postage, printing and graphics, and similar services. An estimated \$3,255 will be needed for rent in FY2001. (\$4,725)	support, contract close out, telephone services, postage, printing, graphics, and similar services. (\$4,645)	contract close out, telephone services, postage, printing, graphics, and similar services. (\$4,663)
	Crosscutting and Contractual Support	Crosscutting and Contractual Support	Crosscutting and Contractual Support
	Supported crosscutting functions, analytical research, enhanced performance measurement and program evaluation activities, including strategic planning; budget formulation and execution; procurement; stakeholder outreach; and personnel management. (\$5,652)	Perform analytical services and independent reviews in support of cross-cutting program objectives and program performance measures. Peer review EERE program performance to provide feedback to research programs. Program management support for information technology, outreach, communication, procurement and human resources management. (\$5,940)	Perform analytical services and independent reviews in support of cross-cutting program objectives and program performance measures. Peer review EERE program performance providing feedback to research programs. Program management support for information technology, outreach, communication, procurement and human resources management. (\$5,263)
Total, Headquarters - Contractual	¢10.277	¢10 505	\$0.02 <i>C</i>
Services	\$10,377	\$10,585	\$9,926
Total, Headquarters	\$19,639	\$20,000	\$19,326

Program Activity	FY 2001	FY 2002	FY 2003
Golden Field Office - Salaries and Related Expenses	The FY 2001 appropriation supported 32 FTE usage to permit the continued operation of the Golden Field Office (Budgeted 30 FTE).  GO manages and administers the Management and Operating contract for NREL and acts as the Federal manager for NREL program planning and execution, budget and financial management, information resource management, environment safety and health, and various other program functions. Approximately half of the EERE program at NREL supports Energy Conservation programs such as Alternative Fuels Utilization, Electric and Hybrid Propulsion, Building Systems Research, and Industrial Separations. GO also manages a wide variety of programs by contracting with commercial vendors, non-profit entities, and colleges and universities. (\$3,315)	The budget supports the continued operation of the Golden Field Office including 34 FTEs for program management activities such as monitoring and evaluating laboratory work and reviewing and funding research proposals, contract and technical management of projects with universities, and commercial vendors, and field management of the Management and Operating contract for NREL. (\$3,960)	The request supports the continued operation of the Golden Field Office including 37 FTEs for program management activities such as monitoring and evaluating laboratory work and reviewing and funding research proposals, contract and technical management of projects with universities, and commercial vendors, and field management of the Management and Operating contract for NREL. (\$3,697)

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001		FY 2002		FY 2003	
Total, Golden Field Office - Salaries and	\$3,	,315		\$3,960		\$3,697
Related Expenses	The following is a breakdown of	f		ψ5,200		Ψοςυνί
Related Expenses	the funding by Object Class for the Golden Field Office:		The following is a breakdow the funding by Object Class the Golden Field Office:		The following is a breakdown funding by Object Class for the Golden Field Office:	
	11.9 Personnel compensation \$					
	2,525		11.9 Personnel compensation		11.9 Personnel compensation	
	12.1 Civilian personnel benefits \$ 630		\$3,030 12.1 Civilian personnel benefits	\$	\$2,829 12.1 Civilian personnel benefits	\$
	21.0 Travel and transportation of		760		708	
	ī	160	21.0 Travel and transportation		21.0 Travel and transportation of	
	22.0 Transportation of things \$		persons	\$ 170	persons	\$ 160
	10		22.0 Transportation of things	\$	22.0 Transportation of things	\$
	23.2 Rental payments to GSA and others		15	1	15	1
	\$ 212		23.2 Rental payments to GSA a		23.2 Rental payments to GSA and	a
	23.3 Communications, utilities, and		others 23.3 Communications, utilities,	\$ 212	others	\$
	and miscellaneous charges \$		and miscellaneous charges	anu		э 212
	75		and miscenaneous charges	\$	23.3 Communications, utilities, a	
	24.0 Printing and reproduction \$			80	and miscellaneous charges	\$ 80
	2		24.0 Printing and reproduction	\$	24.0 Printing and reproduction	\$
	25.1 Advisory and assistance		5	7	5	т
	services \$ 1,6	545	25.1 Advisory and assistance		25.1 Advisory and assistance	
	25.2 Other services (training, service		services	\$ 1,625	services	\$ 1,335
	agreements, etc.) \$ 3	894	25.2 Other services (training, se	ervice	25.2 Other services (training, ser	vice
	26.0 Supplies and materials \$	65	agreements)	\$ 153	agreements)	\$ 706
	31.0 Equipment		26.0 Supplies and material	\$	26.0 Supplies and materials	
	5	\$	65			\$ 65
		50	31.0 Equipment	\$ 50	31.0 Equipment	\$ 50

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Golden Field Office - Contractual Services	A total of \$2,453 supported landlord activities including contractual services associated with the operation of the Golden Field Office. (\$2,453)	The request provides \$2,205 for landlord activities to support infrastructure and supplies to maintain the operation of the Golden Field Office and help in the implementation of the EERE mission. (\$2,205)	The request provides \$2,468 for landlord activities to support infrastructure and supplies to maintain the operation at Golden and help in the implementation of the EERE mission. (\$2,468)
Total, Golden Field Office - Contractual Services	\$2,453	\$2,205	\$2,468
Total, Golden Field Office	\$5,768	\$6,165	\$6,165

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Regional Offices	Federal Energy Management Program	Federal Energy Management Program	Federal Energy Management Program
	The aggregate allocation of \$1,778 for the six Regional Offices supported the following FEMP activities:	The aggregate allocation of \$1,955 for the six Regional Offices supports the following FEMP activities:	The aggregate allocation of \$1,630 for the six Regional Offices supports the following FEMP activities:
	ded vides.	detivities.	RO efforts will continue to be
	Coordinated and organized workshop and webcasts publicizing lessons learned from 25 ALERT team reviews.	Assist Federal agencies in interpreting and applying new Executive Orders and actions resulting from the President's National Energy Strategy.	centered on identifying Federal agency energy needs and providing tools to help achieve EO13123 energy goals.
	Conducted 18 region-specific		Technology-specific ESPCs and
	training workshops including Energy 10 software, State utility finance, EQuest software and	Continue to provide agencies with SAVEnergy Audits as required.	related follow-on projects should increase as a percentage of successfully financed projects.
	Energy Star Buildings, LED Gas,	Award and administer FEMP SEP	
	Water conservation, Alternate Financing, Measurement and Verification and NetMetering	Special Project Grants.	Expand focus on Federal industrial facilities, peak load reduction and cost savings, design and operation
	workshops.	FEMP also receives reimbursements from other	of laboratory facilities, the latest technology in building controls.
	Forged new energy savings partnerships and strengthened existing ones with Federal agencies such as GSA, NPS, CDC, VA, FAA, EPA, DOD,	agencies to support added federal staff at Regional Offices, but on a limited appointment basis ranging from two to four years in service length.	Promote and incorporate through FEMP, clean and efficient Federal transportation savings.
	Army, Navy, Coast Guard and National Guard.	- <del></del>	Increase RO efforts to focus on expanding ALERT team reviews to high risk areas in an effort to help
	Forged numerous new working		mitigate potential energy

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	agreements to increase the use of renewables and incorporated energy efficient technologies through the Green Energy Parks Program. Yellowstone and Ft. Jefferson National Parks utilizing EERE technologies.		emergencies offering agency and region-specific training in LEED certification, distributed energy and combined heat and power, energy and water software programs, and water conservation.
	Successfully incorporated SuperESPCs to qualify for Federal Energy Star Building designation.		Increase efforts to integrate sustainable design, practices, procedures and standards.
	Met FY2001 goal of leveraging \$120 million in private investments		Continue to provide SAVEnergy Audits as required.
	for Federal energy and water efficiency projects via FEMPs Super ESPC program.		Increase efforts to meet SuperESPC goals as established by FEMP HQ.
	Awarded 9 FEMP SEP Special Project Grants through State Energy Offices nationwide. Administered implementation of previous awards.		Leverage existing resources by expanding joint efforts with EERE-Power and Industrial Technologies, as well as universities in training, outreach, and assessment with a focus on Federal industrial facilities.
	Completed 70 SAVEnergy Audits.		
	Worked with utilities and Federal agencies to establish Green Power purchasing programs and Federal power aggregation efforts.		
Regional Offices	Total: \$1,777 (Salaries and	Total: \$1,955 (Salaries and	Total: \$1,630 (Salaries and Related

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
(Cont'd)	Related Expenses: \$1,195, Travel: \$149 Contract Support: \$108, Contractual Services & Landlord Expenses: \$325)	Related Expenses: \$1,300, Travel: \$176, Contract Support: \$69, Contractual Services & Landlord Expenses: \$410)	Expenses: \$1,158, Travel: \$56, Contract Support: \$60, Contractual Services & Landlord Expenses: \$356)
	Office of Buildings Technologies, State and Community Programs (BTS) The aggregate allocation of \$4,773 for the six Regional Offices supported the following BTS activities:	Office of Buildings Technologies, State and Community Programs (BTS) The aggregate allocation of \$5,529 for the six Regional Offices supports the following BTS activities:	Office of Buildings Technologies, State and Community Programs (BTS) The aggregate allocation of \$4,594 for the six Regional Offices supports the following BTS activities:
	(State Formula Grants) Awarded and administered Weatherization Assistance Program (WAP) grants to 50 states, Washington DC, and Native American tribes to weatherize approximately 75,000 low income homes nationwide. Worked with state and local WAP agencies and others to identify opportunities and implement	(State Formula Grants) Award and administer Weatherization Assistance Program grants to 50 states, Washington DC, and Native American tribes to weatherize approximately 105,000 low income homes nationwide.  Award and administer State Energy Program (SEP) grants to	(State Formula Grants) Award and administer Weatherization Assistance Program grants to 50 states, Washington DC, and Native American tribes to weatherize approximately 123,000 low income homes nationwide. Conduct training, workshops, and peer exchanges to help state and local weatherization agencies and others expand the service delivery
	Weatherization <i>Plus</i> strategies at the regional, state and local level. Supported and provided technical assistance and training to states and local service providers to promote advanced EERE technologies and strategies to	50 states, DC and 5 Territories to support state energy activities. Continue work with State Energy Offices and other partners to support implementation of the SEP Strategic Plan for the 21 <sup>st</sup> Century.	infrastructure to promote advanced EERE technologies and strategies to improve program effectiveness.  Award and administer <b>State Energy Program</b> (SEP) grants to 50 states, DC and 5 Territories to

Program Activity	FY 2001	FY 2002	FY 2003
Regional Offices	improve program effectiveness	Award and administer SEP	support state energy activities.
(Cont'd)	using regional peer exchange	Special Project grants to states,	Continue work with State Energy
	working groups.	DC and the 5 Territories on a cost shared competitive basis to help	Offices and other partners to support implementation of the SEP Strategic
	Awarded and administered <b>State</b>	deploy end-use sector	Plan for the 21 <sup>st</sup> Century.
	Energy Program (SEP) grants to	technologies.	•
	50 states, DC and 5 Territories to		Award and administer SEP Special
	support state energy activities.		<b>Project</b> grants to states, DC and the
	Worked with State Energy Offices	(Discretionary Programs)	5 Territories on a cost shared
	and other partners to support	Manage Regional Teams of DOE,	competitive basis to help deploy
	implementation of the SEP	state and contractor staff to	end-use sector technologies.
	Strategic Plan for the 21st Century	implement Rebuild America in	
	addressing the key goals of market	the regions.	
			(Discretionary Programs)
	transformation and collaboration	Seek DOE resources to meet the	Manage Regional Teams of DOE,
	with environmental concerns.	priority needs of key Rebuild	state and contractor staff to
		America existing community and	implement Rebuild America in the
	Awarded and administered at least	school partnerships.	region.
	100 <b>SEP Special Project</b> grants to		
	states, DC and the 5 Territories on	Leverage resources from partner	Market information, provided tools,
	a cost shared competitive basis to	organizations to meet existing	and other assistance to help over
	help deploy end-use sector	partnership needs.	370 existing school and community
	technologies. Developed and		partnerships retrofit 60 million
	conducted training	Award, administer and provide	square feet of floor space.
	sessions/workshops to exchange	oversight and monitoring of	A 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	information, results, and lessons	Special Project Grants to states to	Award, administer and provide
	learned from these grants.	support Rebuild America.	oversight and monitoring of Special
	(Discretionary Programs)	Provide base level support to	Project Grants to states to support <b>Rebuild America</b> .
	Managed Regional Teams of	market and support the <b>Energy</b>	Acouna America.
	DOE, state and contractor staff to	Star program through major	Award and administer financial
	implement <b>Rebuild America</b> in	existing events and programs.	assistance to communities, states,
	implement <b>Nebuna America</b> in	existing events and programs.	assistance to communities, states,

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	the regions.  Recruited approximately 40 new school and community partnerships and marketed	Award grants to support state building energy code efforts through the SEP Special Projects and provide monitoring and oversight.	and others to demonstrate ways DOE could support "Gateway" approaches to addressing the broad energy needs of communities.
	information, provided tools, and other assistance to help existing community partnerships retrofit 80	Provide information on <b>Building America</b> program results and	Promote the <b>Energy Star</b> program at the regional and state level.
	million square feet of floor space.	opportunities to states and other interested parties.	Fund and support pilot promotional efforts.
	Awarded, administered and provided oversight and monitoring of Special Project Grants to states to support <b>Rebuild America</b> .  Awarded and administered financial assistance to communities, states, and others to demonstrate ways DOE could support "Gateway" approaches to addressing the broad energy needs of communities.		Promote and recognize regional successes. Expand efforts to integrate the program into building programs such as <b>Rebuild America.</b> Award grants to support state building energy code efforts through the SEP Special Projects and provide monitoring and oversight.
	Assisted in the marketing and promotion of the <b>Energy Star</b> program at the regional and state level by participating in energy fairs, conservation days, green power conferences and governments meetings.		Provide information on <b>Building America</b> program results and opportunities to states and other interested parties.

Program Activity	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	Worked with local media to publicize Energy Star and Energy Awareness month. Promoted and recognized regional successes.		
	Awarded and administered grants to support <b>State Building Energy Codes</b> efforts through the SEP Special Projects and provides monitoring and oversight. Arranged for technical staff from National laboratories and other sources to train code and building officials.  Provided technical information on code opportunities at workshops and conferences.		
	Awarded and administered SEP Special Project grants to enable states to support <b>Building</b> America efforts. Provided monitoring and oversight.  Provided information on program results and opportunities to states and other interested parties.		

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	Total: \$4,773 (Salaries and Related Expenses: \$3,282, Travel: \$316, Contract Support: \$307, Contractual Services and Landlord Expenses: \$868)	Total: \$5,529 (Salaries and Related Expenses: \$3,601, Travel: \$447, Contract Support: \$212, Contractual Services and Landlord Expenses: \$1,269)	Total: \$4,594 (Salaries and Related Expenses: \$3,165, Travel: \$143, Contract Support: \$184, Contractual Services and Landlord Expenses: \$1,102)
	Office of Industrial Technologies (OIT)	Office of Industrial Technologies (OIT)	Office of Industrial Technologies (OIT)
	The aggregate allocation of \$1,178 for the six Regional Offices supported the following OIT activities:	The aggregate allocation of \$1,216 for the six Regional Offices supports the following OIT activities:	The aggregate allocation of \$1,012 for the six Regional Offices supports the following OIT activities:
	Developed and supported 26 industry/state & federal government/ university collaborations, resulting in the signing of six State Industry of the Future (IOF)/DOE Compacts.  Deployed the State IOF Gateway	Develop State-based IOF technology roadmaps that support and supplement IOF specific programs.  Integrate OIT crosscutting activities into State IOF deliverables.	<ul> <li>FY'01 Continued Activities</li> <li>State IOF Coalition Building</li> <li>State IOF Gateway Deployment</li> <li>NICE<sup>3</sup> Support &amp; Site Visits</li> <li>Energy &amp; Utility Linkage</li> <li>IAC Promotion</li> <li>University Access to Resources</li> <li>Best Practice Resource</li> <li>Promotion</li> </ul>
	to State and Local partners as the integrated delivery mechanism for OIT's programs, services, and products, through grant writing and promotional meetings and workshops.	Expand awareness and interest in OIT's portfolio of enabling technologies, financial assistance, and technical assistance programs.	Inclusion of Environment &     Economic Development Officials  Influence how regional priorities are established by serving on OIT's State IOF Team.
	Promoted the NICE <sup>3</sup> Program and		Implement State-based IOF

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	provided grant monitoring and site visits for 40 on-going projects.		technology roadmaps that support and supplement IOF specific programs.
	Developed local contacts with energy and utility company		Integrate OIT crosscutting activities
	representatives to provide coordinated delivery of EE		into State IOF deliverables.
	resources, technologies, and solutions for their Industrial customers.		Expand awareness and interest in OIT's portfolio of enabling technologies, financial assistance, and technical assistance programs.
	Assisted the 26 local Industrial		
	Assessment Centers (IAC) by promoting opportunities and		Using the State IOF Gateway, collaborate with States, Universities
	benefits of assessments to companies.		and Industry partners to pursue the Energy Efficiency Science Initiative.
	Worked with Universities interested in gaining access to DOE's resources to meet industries' needs by promoting		
	solicitations and providing linkage to potential industry partners.		
	Promoted Best Practices financial and technical resources to end-use customers, and as a resource capacity building element of the State IOF Program.		
	Expanded OIT mission and benefits by including state and		

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	local environmental and economic development policy makers.		
	Total: \$1,178 (Salaries and Related Expenses: \$814, Travel: \$71, Contract Support: \$72, Contractual Services and Landlord Expenses: \$221)	Total: \$1,216 (Salaries and Related Expenses: \$800, Travel: \$109, Contract Support: \$44, Contractual Services and Landlord Expenses: \$263)	Total: \$1,012 (Salaries and Related Expenses: \$709, Travel: \$35, Contract Support: \$39, Contractual Services and Landlord Expenses: \$229)
	Office of Power Technologies (OPT) The aggregated allocation of \$2,027 for the six Regional Offices supported the following OPT activities:	Office of Power Technologies (OPT) The aggregated allocation of \$2,334 for the six Regional Offices will support the following OPT activities:	Office of Power Technologies (OPT)  The aggregated allocation of \$1,981 for the six Regional Offices will support the following OPT activities:
	Provided general and region- specific support of renewable energy technology deployment programs through partnerships, facilitating projects and technical assistance, outreach to regional stakeholders and interaction with HQ program managers.	Provided general and region- specific support of renewable energy technology deployment programs through partnerships, facilitating projects and technical assistance, outreach to regional stakeholders and interaction with HQ program managers.	Provided general and region-specific support of renewable energy technology deployment programs through partnerships, facilitating projects and technical assistance, outreach to regional stakeholders and interaction with HQ program managers.
	Provided project oversight of the 35 OPT sponsored State Energy Program special project grants and cooperative agreements to states.		
	Total: \$2,027 (Salaries and Related Expenses:	Total: \$2,334 (Salaries and Related Expenses:	Total: \$1,981 (Salaries and Related Expenses:

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	\$1,418, Travel: \$147, Contract Support: \$112, Contractual Services and Landlord Expenses: \$350)	\$1,609, Travel: \$159, Contract Support: \$61, Contractual Services and Landlord Expenses: \$505)	\$1,438, Travel: \$51, Contract Support: \$53, Contractual Services and Landlord Expenses: \$439)
	Office of Transportation Technologies (OTT)	Office of Transportation Technologies (OTT)	Office of Transportation Technologies (OTT)
	The aggregated allocation of \$1,440 for the six Regional Offices supported the following	The aggregated allocation of \$1,617 for the six Regional Offices will support the following	The aggregated allocation of \$1,332 for the six Regional Offices will support the following OTT
	OTT activities:	OTT activities:	activities:
	Assisted Clean Cities coalitions toward achieving new program goals.	Continue to assist coalitions work toward achieving program goals.	Continue to assist coalitions work toward achieving program goals.
	Helped implement the five main program areas critical to alternative	Continue to implement the five main program areas.	Continue to implement the five main program areas.
	fuel vehicle (AFV) and alternative fuel market development.	Continue to represent DOE on each of the Clean Cities coalitions.	Continue to represent DOE on each of the Clean Cities coalitions.
	Represented DOE on each of the more than 80 active Coalitions.	Serve as a liaison between the Clean Cities Tiger Teams and the coalitions.	Continue to serve as a liaison between the Clean Cities Tiger Teams and the coalitions.
	Co-sponsored and actively participated in over 50 "Advancing The AFV Choice" events for fleet operators with approximately 100 attendees each.	Continue to provide technical and financial assistance and active participation in "Advancing The AFV Choice" events for niche markets.	Continue to provide technical and financial assistance and active participation in "Advancing The AFV Choice" events for niche markets.

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	Awarded State Energy Program (SEP) Special Projects grants and other public/private partnership	Continue monitoring and oversight of SEP Special Projects grants.	Continue monitoring and oversight of SEP Special Projects grants.
	grants.	Continue to provide assistance for Regional Coordinator Meetings.	Continue to provide assistance for Regional Coordinator Meetings.
	Organized and conducted Regional Coordinator Meetings. Helped coalitions begin	Assist coordinators in building self-sustaining coalitions.	.Will assist coordinators in building self-sustaining coalitions.
	developing four self-sustaining niche market activity centers.	Continue to assist coalitions with	Continue to assist coalitions with the development of the four self-
	Assisted Clean Cities Coalitions	the development of the four self- sustaining niche market activity	sustaining niche market activity centers.
	develop and submit updated Program Plans and Memorandum	centers.	Continue to assist coalitions develop
	of Understanding.  Provided assistance on tools and	Continue to assist coalitions develop and submit updated Program Plans and Memorandum	and submit updated Program Plans and Memorandum of Understanding
	communication/outreach products and resources for Clean Cities	of Understanding	Continue to provide assistance on tools and communication/outreach
	coalitions.	Continue to provide assistance on tools and communication/outreach	products and resources for Clean Cities coalitions.
	Organized and conducted regional Voluntary Mobile Source Emissions Reduction Program	products and resources for Clean Cities coalitions.	Continue activities and events in support of the DOE/EPA
	(VMEP) workshops as part of the DOE/EPA Cooperative Initiative.	Continue activities and events in support of the DOE/EPA	Cooperative Initiative.
		Cooperative Initiative.	Continue to provide technical information on advanced
	Provided technical information on near-term advanced technologies,	Continue to provide technical information on advanced	technologies and vehicles.
	including hybrid-electric and fuel cell vehicles.	technologies and vehicles.	Continue to actively participate in Clean Cities Strategic Planning.

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Program Activity	FY 2001	FY 2002	FY 2003
Regional Offices (Cont'd)	Actively participated in Clean Cities Strategic Planning with Office of Transportation Technologies and NREL staff via meetings and conference calls.  Coalitions added over 15,700 light-duty AFVs and 800 heavy- duty AFVs. Coalitions also added 443 new public and 308 new private alternative fuel refueling stations and gathered fuel price survey information.  Provided detailed technical information on regulations, legislation, and incentives, including the Energy Policy Act, Executive Orders, emissions and air quality requirements, and funding opportunities.	Continue to actively participate in Clean Cities Strategic Planning.  Continue to provide detailed technical information on regulations, legislation, and incentives.	Continue to provide detailed technical information on regulations, legislation, and incentives.
	Total: \$1,440 (Salaries and Related Expenses: \$980, Travel: \$107, Contract Support: \$96, Contractual Services and Landlord Expenses: \$257)	Total: \$1,617 (Salaries and Related Expenses: \$1,039, Travel: \$159, Contract Support: \$67, Contractual Services and Landlord Expenses: \$352)	Total: \$1,332 (Salaries and Related Expenses: \$916, Travel \$51, Contract Support: \$59, Contractual Services and Landlord Expenses: \$306)
Regional Offices (Cont'd)	Crosscutting Program Implementation/Assistant Secretarial Support	Crosscutting Program Implementation/Assistant Secretarial Support	Crosscutting Program Implementation/Assistant Secretarial Support

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
	The aggregate allocation of \$1,882 for the six Regional Offices	The aggregate allocation of \$1,755 for the six Regional Offices	The aggregate allocation of \$1,485 for the six Regional Offices supports
	supported the following Crosscutting/EERE activities:	supports the following Crosscutting/EERE activities:	the following Crosscutting/EERE activities:
	Sensitized State Energy/Air	At the request of State Energy	Strengthen public education,
	Quality officials to regulatory	Office officials and other	outreach and technical assistance
	requirements required to credit EE/RE technologies in State	customers continue "portfolio" delivery of all EERE programs	programs in support of the NEP.
	Implementation Plans (SIPS).	allowing customer choice.	Leverage resources by linking key customer/stakeholder investment
	Worked with Governors' Associations to ensure EERE's	Leverage resources and linking key customer/stakeholder	decisions to EERE priorities.
	technologies and deployment programs were prominent features of state and regional plans to meet	investment decisions to EERE priorities.	Facilitate program delivery through a "portfolio" of programs offering customers a choice based on
	growing energy demands.	Work with Governors Associations and state air quality	priorities and needs.
	Established the first "Sustainability	officials by encouraging EERE	Continue work with State Air
	Desk" at a FEMA Disaster	technologies and efficiency	Quality officials to encourage use of
	Response Center in Los Alamos, NM. Staffed desk for 23 days.	recommendations in SIPs.	EERE technologies in state SIPS plans.
	Counseled 224 families on green	Support the Bioenergy Initiative	pians.
	rebuilding. Implemented 28	through the Regional Biomass	Support the Bioenergy Initiative and
	projects under the Green Energy	Energy Programs and work with	other programs/initiatives by
	Parks MOU between DOE and DOI to focus attention on the	State Energy Offices, customers and stakeholders to overcome	reducing barriers and ensuring technology transfer to the
	benefits of EERE.	barriers and increase outreach and education efforts.	marketplace.
Regional Offices	Worked on decision support tools		Work with Governors Associations
(Cont'd)	and helped evolve projects including a Metro Vision Resource	Administer grants to State Energy Offices and local industries to	to help them make informed choices on issues related to energy.

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<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
	Center in a major metropolitan area. Created a CD ROM for HUD's community builders.	expand the near-term use of biomass conversion technologies and provide reliable information to potential biomass users.	Continue work with the States and other key customer/stakeholders to address barriers to DER deployment.
	Maintained Regional Office	-	
	websites and sponsored www.sustainable.doe.gov to promote EERE programs,	Promote DER by providing information and technical assistance to the States and other	Continue work with DOI/NPS to implement the Green Parks MOU.
	technologies and provided contacts for customers.	customer/stakeholders to address barriers in the marketplace, enabling technology transfer.	Continue to work with FEMA on disaster response, recovery and mitigation.
	Represented EERE on White		_
	House Task Force on Livable Communities.	Work with FEMA to provide support on disaster response, recovery, and mitigation. Provide	Continue to work closely with State Energy Offices to gain their input into improving EERE program
	Represented EERE at USA- Mexico Border Forum.	EERE equipment in the event of a disaster.  Provide market-based information	content and delivery while encouraging their full participation in education/outreach activities.
	Held 6 public meetings to gather	on issues that impact EERE	
	comments on EERE programs and technologies. Received over 4000	policy and programs	Provide market-based information on issues that impact EERE policy
	comments to help decision makers improve energy policy and	Implement provisions of MOUs between DOE/EERE and other	and programs.
	programs.	Federal agencies.	Implement provisions of MOUs between DOE/EERE and other
	Spearheaded initiative for EERE promoting energy efficiency to ski	Provide logistics/information and briefing material for high profile	Federal agencies.
Regional Offices	industry.	events/VIP visits for EERE and senior staff.	Provide logistics/information and briefing material for high profile
(Cont'd)	Supported EERE priorities	Somor Starr.	events/VIP visits for EERE and
( <del> /</del>	programs by working with key private/public sector groups -	Represent EERE and senior staff at speaking engagements,	senior staff.

III. Performance Summary: Policy and Management

Program Activity	FY 2001 FY 2002		FY 2003	
	NASEO, ECOS, NCSL, utilities, and others.		conferences, and meetings.	Represent EERE and senior staff at speaking engagements, conferences, and meetings.
	Provided logistics/information and briefing material for ASEE at high profile events/VIP visits.			
	Represent ASEE and senior staff at speaking engagements, conferences, and meetings.			
	Total: \$1,881 (Salaries and Related Expenses: \$1,176, Travel: \$119, Contract Support: \$307, Contractual Services and Landlord Expenses: \$279)	Total: \$1,755 (Salaries and Related Expenses: \$1,204, Travel: \$123, Contract Support: \$64, Contractual Services and Landlord Expenses: \$364)	Total: \$1,485 (Salaries and Related Expenses: \$1,074, Travel: \$39, Contract Support: \$56, Contractual Services and Landlord Expenses: \$316)	
	Management and Administration	Management and Administration	Management and Administration	
	The aggregated allocation of	The aggregated allocation of	The aggregated allocation of \$2,981	
	\$3,411 for the six Regional	\$3,644 for the six Regional	for the six Regional Offices will	
	Offices supported the following Management and Administration activities:	Offices will support the following Management and Administration activities:	support the following Management and Administration activities:	
	Provided operational and resource management, budgeting and finance activities for 6 Regional	Provide human resource management for a budgeted 124 FTEs including recruitment,	Provide human resource management for a requested 119 FTEs including recruitment, training, performance management,	

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
	Provided human resource management for actual 119 FTE usage including recruitment, training, performance management, policies and procedures, time and attendance management, etc (Budgeted 131 FTE).	procedures, time and attendance management, etc.	Continue oversight and monitoring of approximately 1000 end-use sector funded financial assistance agreements. This includes desk and on-site grant/project tracking and monitoring, grant initiation, amendment, closeout and archiving. Processing of all financial plan modifications and program letters.
	Provided oversight and monitoring of approximately 1000 end-use sector funded financial assistance agreements. This included desk and on-site grant/project tracking and monitoring, grant initiation, amendment, closeout and archiving. Processed all financial plan modifications and program letters.	Continue oversight and monitoring of approximately 1000 end-use sector funded financial assistance agreements. This includes desk and on-site grant/project tracking and monitoring, grant initiation, amendment, closeout and archiving. Processing of all financial plan modifications and program letters.	Continue to provide regional integration and delivery of EERE deployment programs and initiatives. This involves interaction at the RO staff and management level with stakeholders and HQ program managers, development of regional strategic plans, project and partnership facilitation, opportunity identification, resource identification from other DOE, Federal, regional, state and local resources.
<b>Regional Offices</b> (Cont'd)	Provided regional integration and delivery of EERE deployment programs and initiatives. This involved interaction at the RO staff and management level with stakeholders and HQ program managers, development of regional strategic plans, project and	Continue to provide regional integration and delivery of EERE deployment programs and initiatives. This involves interaction at the RO staff and management level with stakeholders and HQ program managers, development of	Information technology management including maintenance of local area networks, interaction with HQ's IT systems, website support, etc. RO staff provides dat to numerous systems including procurement-PADS, financial-DISCAS, the Departmental time

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Program Activity	FY 2001	FY 2002	FY 2003
	identification, resource identification from other DOE, Federal, regional, state and local resources.	and partnership facilitation, opportunity identification, resource identification from other DOE, Federal regional, state and local resources.	WinSAGA.
	Provided information technology management including maintenance of local area networks, interaction with HQ's IT systems, website support, etc. RO staff provided data to numerous systems including procurement-PADS, financial-DISCAS, the Departmental time and attendance system and WinSAGA.	Information technology management including maintenance of local area networks, interaction with HQ's IT systems, website support, etc. RO staff provides data to numerous systems including procurement-PADS, financial-DISCAS, the Departmental time and attendance system and WinSAGA.	
	Total: \$3,411 (Salaries and Related Expenses: \$2,073, Travel: \$157, Contract Support: \$544, Contractual Services and Landlord Expenses: \$637)	Total: \$3,644 (Salaries and Related Expenses: \$2,270, Travel: \$327, Contract Support: \$238, Contractual Services and Landlord Expenses: \$809)	Total: \$2,981 (Salaries and Related Expenses: \$1,967, Travel: \$105, Contract Support: \$206, Contractual Services and Landlord Expenses: \$703)
Subtotal, RO - Salaries and	\$12,428		
Related Expenses		\$13,323	\$11,429
Subtotal, Regional Offices - Contractual	\$4,061	\$4,727	\$3,586

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<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Services			
Total, Regional Offices	\$16,489	\$18,050	\$15,015
Regional Offices - Object Classes and Subtotals	The following is a breakdown of budgeted funding by Object Class for the Regional Offices:	The following is a breakdown of the funding by Object Class for the Regional Offices:	The following is a breakdown of the funding by Object Class for the Regional Offices:
	11.9 Personnel compensation \$8,972	11.9 Personnel compensation \$ 9,460	11.9 Personnel compensation \$ 8,114
	12.1 Civilian personnel benefits \$ 2,243	12.1 Civilian personnel benefits \$ 2,363	12.1 Civilian personnel benefits \$ 2,028
	13.1 Benefits for former personnel \$	13.1 Benefits for former personnel \$	13.1 Benefits for former personnel \$
	0	0	0
	21.0 Travel and transportation	21.0 Travel and transportation	21.0 Travel and transportation
	of persons \$	of persons \$	of persons \$ 1,287
	1,213	1,500	22.0 Transportation of things \$ 50
	22.0 Transportation of things \$	22.0 Transportation of things \$ 75	23.1 Rental payments to GSA \$
	23.1 Rental payments to GSA \$	23.1 Rental payments to GSA \$ 2,062	2,105 23.2 Rental payments to others \$
	1,968	23.2 Rental payments to others \$	100
	23.2 Rental payments to others \$	100	23.3 Communication, utilities,
	87	23.3 Communication, utilities,	misc. charges \$ 500
	23.3 Communication, utilities, misc.	misc. charges \$ 500	24.0 Printing and reproduction \$
	charges \$ 395	24.0 Printing and reproduction \$	50
<b>Regional Offices</b>	24.0 Printing and reproduction \$	45	25.1 Advisory and assistance
(Cont'd)	43	25.1 Advisory and assistance	services and other services \$ 411
	25.1 Advisory and assistance	services and other services \$ 800	25.3 Purchases of goods/services
	services and other services \$	25.3 Purchases of goods/services	from Govt. accounts \$ 100

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FY 2001		FY 2002 FY 2		FY 2003		
416		from Govt. accounts	\$ 280	25.7 Operation and maintenance	ce	
25.3 Purchases of goods/serv	rices	25.7 Operation and maintenar	nce	of equipment	\$	120
from Govt. accounts	\$ 270	of equipment	\$ 115	26.0 Supplies and materials	\$	150
25.7 Operation and maintenar	nce	26.0 Supplies and materials	\$ 200	31.0 Acquisition of equipment	:	
of equipment	\$ 108	31.0 Acquisition of equipmen	it:	ADP equipment	\$	0
26.0 Supplies and materials	\$ 192	ADP equipment	\$ 550			
31.0 Acquisition of equipmen	t:			Regional Office Subtotals:		
ADP equipment	\$ 522	Regional Office Subtotals:	:	_		
		_		Atlanta	\$	2,70
Regional Office Subtotals:		Atlanta	\$ 3,639	Boston	\$	2,23
_		Boston	\$ 2,620	Chicago	\$	2,05
Atlanta	\$ 3,147	Chicago	\$ 2,475	Denver	\$	3,19
Boston	\$ 2,266	Denver	\$ 3,639	Philadelphia		2,41
Chicago		Philadelphia	\$ 2,620	<u> </u>		2,41
Denver		Seattle	\$ 3,057			,
Philadelphia			,	Total	\$15	5,105
Seattle	\$ 2,769	Total	\$18,050			,
Total	\$16,489					
	Efficiency	0.	Efficiency	0.	fficier	ncy
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	416 25.3 Purchases of goods/serv from Govt. accounts 25.7 Operation and maintenar of equipment 26.0 Supplies and materials 31.0 Acquisition of equipment ADP equipment Regional Office Subtotals: Atlanta Boston Chicago Denver Philadelphia Seattle Total  Committee on Energy I Commerce and Trade (COEECT) Continued to develop and implement an international for U.S. energy efficiency industries; conduct trade in to emerging markets; utilizexperts to assist U.S. firm	416 25.3 Purchases of goods/services from Govt. accounts \$ 270 25.7 Operation and maintenance of equipment \$ 108 26.0 Supplies and materials \$ 192 31.0 Acquisition of equipment: ADP equipment \$ 522  Regional Office Subtotals:  Atlanta \$ 3,147 Boston \$ 2,266 Chicago \$ 2,517 Denver \$ 3,398 Philadelphia \$ 2,392 Seattle \$ 2,769  Total \$16,489  Committee on Energy Efficiency Commerce and Trade	from Govt. accounts  25.3 Purchases of goods/services from Govt. accounts  25.7 Operation and maintenance of equipment  26.0 Supplies and materials 31.0 Acquisition of equipment ADP equipment 31.0 Acquisition of equipment 31.0 Acquisition of equipment ADP equipment 31.0 Acquisition of equipment 31.0 Acquisition of equipment 31.0 Acquisition of equi	416 25.3 Purchases of goods/services from Govt. accounts \$ 270 25.7 Operation and maintenance of equipment \$ 108 26.0 Supplies and materials \$ 192 31.0 Acquisition of equipment: ADP equipment \$ 522  Regional Office Subtotals:  Regional Office Subtotals:  Atlanta \$ 3,147 Boston \$ 2,266 Chicago \$ 2,517 Boiton \$ 2,392 Seattle \$ 2,769  Total \$ 16,489   from Govt. accounts \$ 280 25.7 Operation and maintenance of equipment \$ 115 26.0 Supplies and materials \$ 200 31.0 Acquisition of equipment:  ADP equipment \$ 550  Atlanta \$ 3,639 Boston \$ 2,620 Chicago \$ 2,475 Denver \$ 3,639 Philadelphia \$ 2,392 Seattle \$ 2,769  Total \$ 16,489   Committee on Energy Efficiency Commerce and Trade (COEECT) Continued to develop and implement an international strategy for U.S. energy efficiency industries; conduct trade missions to emerging markets; utilize local experts to assist U.S. firms in	416 25.3 Purchases of goods/services from Govt. accounts from Govt	from Govt. accounts \$ 280 25.7 Operation and maintenance of equipment \$ 25.3 Purchases of goods/services from Govt. accounts \$ 270 25.7 Operation and maintenance of equipment \$ 115 25.7 Operation and maintenance of equipment \$ 26.0 Supplies and materials \$ 200 25.7 Operation and maintenance of equipment \$ 108 25.7 Operation and maintenance of equipment \$ 108 25.7 Operation and maintenance of equipment \$ 26.0 Supplies and materials \$ 200 31.0 Acquisition of equipment: ADP equipment \$ 502 31.0 Acquisition of equipment \$ 550 31.0 Acquisition of equipment \$ 520 31.0 A

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
	continued focus on Asia markets and increased focus on Latin America. (\$1,200)		
International			
Market	<b>Energy Efficiency Centers</b>	T 700 1 0 1	Energy Efficiency Centers
Development	Promote continued access to	<b>Energy Efficiency Centers</b>	No activities (\$0)
(Cont'd)	Energy Efficiency Centers through contracted work and Internet linkage. (\$100)	No funding request. (\$0)	No activities. (\$0)
	Asia Pacific Economic		Asia Pacific Economic
	Cooperation (APEC)	Asia Pacific Economic Cooperation (APEC)	Cooperation (APEC)
	Continued the U.S.'s leadership role in energy efficiency subcommittees of this international cooperative effort. Continued dialogue and involvement with member countries. Continued to identify viable market opportunities and coordinate activities with EE industry. Showcase U.S. technologies in member countries. (\$590)	Continue the U.S. leadership role in this international cooperative effort. Continue dialogue and participation with member countries in energy efficiency activities. Showcase U.S. technologies in member countries. (\$600)	Continue the U.S. leadership role in this international cooperative effort. Implement APEC Sustainable Village activities in China. Continue dialogue and participation with member countries in energy efficiency activities. Showcase U.S. technologies in member countries. (\$585)
	Center for the Analysis and Dissemination of Demonstrated Technologies (CADDET)	Center for the Analysis and	Energy and Environment Technology Centers (EETIC)

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
International		Dissemination of Demonstrated Technologies (CADDET)	(Name change reflects combining of CADDET and GREENTIE as annexes under IEA's EETIC)
Market Development (Cont'd)	Continued support for U.S. participation in this international cooperative effort. Support collection and dissemination of information on EERE technologies. Provided U.S. industry data on innovative applications of EE technologies in other countries. Conducted workshops to increase worldwide awareness of EE products and services. (\$660)	No funding is requested to continue U.S. participation in the International Energy Agency's Energy and Environmental Technology Information Center (IEA/EETIC) annexes. (\$0)	Funding is requested under Energy Environment Technology Centers reflecting combination of CADDET and GREENTIE as annexes under IEA's EETIC. (\$65)
	Greenhouse Gas Technology Information Exchange (GREENTIE)		
	Continued participation in this international effort to reduce green house gas emissions. Continued	Greenhouse Gas Technology Information Exchange (GREENTIE)	
	support for the upkeep of the directory of green house gas technology centers and the supporting networks. Provided U.S. industry information on potential market opportunities in targeted regions. (\$50)	Continue U.S. membership in this International Energy Agency Energy and Environmental Technology Information Centers (IEA/EETIC) Annex for the support and up keep of an information directory on technology applications which reduce greenhouse gas emissions	

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
		and support for regional networks to disseminate that data. (\$50)	
Total, International Market Development	\$2,600	\$65	0 \$650
Information and Communications Program	Energy Efficiency and Renewable Energy Clearinghouse (EREC)  Continued operation of EREC to provide technical assistance and information in response to public inquiries (approximately 60,000 per year). Improved timeliness and quality of products delivered to increase level of customer satisfaction; produce report on customer inquiries, responses and customer satisfaction. Assessed service improvements and evaluate project impacts. Produced more	Energy Efficiency and Renewable Energy Clearinghouse (EREC)  Provide technical assistance in response to 110,000 public inquiries per year. (\$1,150)	Energy Efficiency and Renewable Energy Clearinghouse (EREC)  Provide technical assistance in response to 110,000 public inquiries per year. (\$1,150)

III. Performance Summary: Policy and Management

Program Activity	FY 2001	FY 2002	FY 2003
	Energy Efficiency and Renewable Energy Network (EREN)	Energy Efficiency and Renewable Energy Network (EREN)	Energy Efficiency and Renewable Energy Network (EREN)
Information and Communications Program (Cont'd)	Continue promotion and support of EREN, a coordinated system linking multiple existing information and technical assistance services. Improve development of website and update relevant and timely information on EERE programs and technologies. Use EREN to communicate and obtain feedback to facilitate closer collaboration with States, private industry, other Federal agencies and other external partners. This site is used to publish an increasing number of EERE studies and reports. (\$400)	Web-based information and technical assistance services provided to EERE stakeholders. EREN plans to increase usage over the previous year by 15 percent, (8 million internet hits per month) while maintaining a 95+ percent customer satisfaction rating. (\$400)	Web-based information and technical assistance services provided to EERE stakeholders. EREN plans to increase usage over the previous year by another 15 percent, (8 million internet hits per month) while maintaining a 95+ percent customer satisfaction rating. (\$400)
Total, Information and Communications	<b>\$1,550</b>	<b>\$1,550</b>	\$1,550

III. Performance Summary: Policy and Management

<b>Program Activity</b>	FY 2001	FY 2002	FY 2003
Excluding Full			
Funding of			
Federal			
Retirements,			
Policy and			
Management <sup>a</sup>	\$43,274	\$43,470	\$40,053

<sup>&</sup>lt;sup>a</sup> The FY 2001 and FY 2002 columns of the Congressional Request include funding in the amounts of \$2,772,000 and \$2,665,000, respectively, for the Government's share of increased cost associated with pension and annuitant health care benefits. These funds are comparable to FY 2003 funding of \$2,653,000. (Note: The data is presented on a comparable basis as if the legislation had been enacted and implemented in FY 2001.)