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RESOURCES, COMMUNITY,  
AND ECONOMIC DEVELOPMENT  
DIVISION

B-213139

The Honorable Richard L. Ottinger  
Chairman, Subcommittee on Energy  
Conservation and Power  
Committee on Energy and Commerce  
House of Representatives



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Dear Mr. Chairman:

Subject: Overview of Selected Civilian Agencies' Progress  
in Achieving Energy Conservation (GAO/RCED-84-200)

In response to your letter of January 5, 1984, we obtained information on the efforts of selected civilian agencies to manage their use of energy. This work is a follow-on to our previous report to you on the status of the Federal Energy Management Program (FEMP) (GAO/RCED-84-86, Mar. 7, 1984) and covers the activities of 10 federal civilian agencies<sup>1</sup> which accounted for over 95 percent of federal civilian energy use in fiscal year 1983.

As requested, this report provides information on

- the progress of selected civilian agencies in meeting energy efficiency requirements and achieving energy efficiency goals;
- how actual agency energy conservation initiatives compare with those described in agency energy management plans;
- the organization and management commitment of each agency to its energy conservation program, including personnel and budget levels;
- the reliability and accuracy of energy conservation data reported by the agencies; and
- the potential savings from the implementation of agency plans and conservation measures.

<sup>1</sup>General Services Administration, the Veterans Administration, the National Aeronautics and Space Administration, the U.S. Postal Service, and the Departments of Energy, Transportation, the Interior, Agriculture, Justice, and Health and Human Services.

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The enclosure to this letter discusses our objectives, scope, and methodology; provides a brief background on federal energy use; and provides details on the results of our work.

Agencies have four goals for reducing energy use: two for existing buildings, one for new buildings, and one for petroleum use. For existing buildings, the goals are to (1) reduce overall energy use 20 percent by 1985 and (2) make all cost-effective retrofits by 1990. For new buildings, the goal is to make them 45 percent more efficient than buildings existing in 1975. For petroleum use in buildings, the goal is a reduction of 30 percent by 1985.

Information submitted to the Department of Energy (DOE) by the agencies shows that 8 of the 10 agencies included in our review have already met the goal to reduce petroleum use, and 9 of the 10 have reduced energy use in existing buildings by at least 10 percent. It is difficult to determine agencies' progress toward the retrofit goal because of the way that agencies carry out retrofit projects. Agencies retrofit the most cost-effective projects first and undertake less cost-effective projects at a later time. Thus, in most cases, a building would not receive all retrofit measures in a single year, and some agencies may report a building as retrofitted when the first measures are installed and others when all cost-effective measures are completed.

For new buildings, all of the agencies' energy coordinators told us that more-energy-efficient new buildings are being designed. At the time of our review, however, only three agencies had completed the construction of new buildings. Energy use data were available for new buildings in two of these agencies. The data showed that neither achieved the 45 percent goal. One agency achieved about a 28 percent reduction and the other a 39 percent reduction.

Agency efforts to conserve energy in buildings are guided by 10-year building energy management plans that the agencies were required to develop and submit to DOE. The plans were to cover the 10-year period ending in fiscal year 1985. However, as we previously reported,<sup>2</sup> most of these plans were not approved by DOE until after fiscal year 1981. With this information, DOE prepared an overall 10-year plan for federal buildings energy management. We were not able to determine agencies' progress in implementing their plans because comparison of agency plans with actual measures taken is difficult due to the general nature of the plans. However, information that we obtained on technical audits, which are used to identify needed conservation measures,

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<sup>2</sup>Status of the Federal Energy Management Program (GAO/RCED-84-86, Mar. 7, 1984).

showed that 7 of the 10 agencies had completed such audits as an initial step toward plan implementation.

Concerning the extent to which agencies provided support for conservation programs, we considered the organizational placement of the program within the agency, and program staffing and funding. With respect to organizational placement, the reporting by agency energy coordinators to the agency's principal conservation officer varied among the 10 agencies. For example, the energy coordinator at the Department of Transportation reports directly to the principal conservation officer, whereas the energy coordinators at the Veterans Administration and the Departments of Agriculture and Justice are separated from the principal conservation officers by four management levels. With respect to staffing, seven agencies had energy conservation staff reductions since 1981, two of which exceeded 50 percent. The other three agencies had no staffing changes. With respect to funding, information was available for fiscal years 1980-1983 for energy conservation-related retrofit and capital equipment funding for 8 of the 10 agencies. For this period, funding ranged from about \$63 million to about \$75 million for the eight agencies. Four agencies experienced increases in funding and four had decreases.

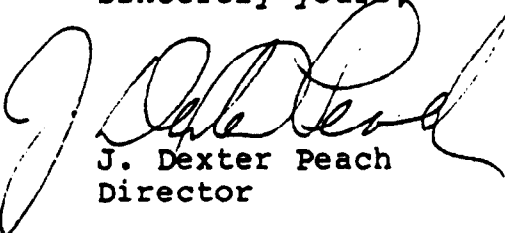
We found that there is little verification of energy conservation data by either the agencies or DOE. Finally, while most agencies have not made estimates of potential energy savings expected from implementing their plans, three estimated that an additional 5 to 10 percent could be saved.

As requested by your office, we did not obtain agency comments on this report.

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As arranged with your office, unless you publicly announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time we will send copies to the heads of the 10 agencies whose activities the report discusses, the Director of the Office of Management and Budget, and chairmen of energy-related congressional committees. We will also make copies available to others upon request.

Sincerely yours,



J. Dexter Peach  
Director

Enclosure

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ABBREVIATIONS

Btu	British thermal unit
DOE	Department of Energy
FEMP	Federal Energy Management Program
GSA	General Services Administration
HHS	Department of Health and Human Services
NASA	National Aeronautics and Space Administration
VA	Veterans Administration

OVERVIEW OF SELECTED CIVILIAN AGENCIES'  
PROGRESS IN ACHIEVING ENERGY CONSERVATION

INTRODUCTION

The federal government is the nation's largest consumer of energy, accounting for approximately 2.5 percent of the country's total energy use. Total federal energy use has increased 5 percent since fiscal year 1980, reaching 1,796 trillion British thermal units<sup>1</sup> (Btu's) in fiscal year 1983 at a cost of over \$12.5 billion. This was nearly \$1 billion less than in fiscal year 1982 and resulted from lower petroleum prices, particularly jet and diesel fuels. In fiscal year 1983, civilian agencies used 321 trillion Btu's--almost 18 percent of the government's total usage. Civilian agencies account for over 30 percent of the energy consumed in federal buildings and facilities.

Since 1973, legislation and executive guidance have promoted energy conservation within the federal government. A June 1973 presidential memorandum established FEMP to manage the government's energy use. Legislation and guidance issued to promote energy conservation included requirements to (1) develop and implement an overall 10-year plan to conserve energy in the federal government, as well as individual agency 10-year plans, (2) meet mandated energy conservation goals, and (3) designate high-level departmental or agency personnel as principal conservation officers.

OBJECTIVES, SCOPE, AND METHODOLOGY

As requested by the Chairman, Subcommittee on Energy Conservation and Power, House Committee on Energy and Commerce, and as modified in discussions with his office, our objective in this review was to examine the efforts of selected federal civilian agencies in managing their use of energy. Specifically, we reviewed agencies' energy management plans and efforts to implement these plans. We focused on the progress of agencies in meeting energy efficiency requirements and achieving energy efficiency goals, from the time the goals were established until mid-1984.

As arranged with the Chairman's office, we selected the top 10 federal civilian energy-using agencies for review. These agencies, which accounted for over 95 percent of civilian agencies' energy use in fiscal year 1983, were the General Services Administration (GSA); Veterans Administration (VA); National Aeronautics and Space Administration (NASA); U.S. Postal Service; and the

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<sup>1</sup>A British thermal unit is a unit of heat equal to 252 calories, the quantity of heat required to raise the temperature of 1 pound of water from 62 degrees to 63 degrees Fahrenheit.

Departments of Energy, Transportation, the Interior, Agriculture, Justice, and Health and Human Services (HHS). In order to gather comparable information in a timely manner, we designed a questionnaire for use in conducting structured interviews with each of the agencies.

To meet our objective, we (1) reviewed legislation and executive orders relating to federal energy use, (2) reviewed the overall federal 10-year buildings plan and the buildings plans of the 10 individual agencies included in our review, (3) interviewed DOE FEMP officials, (4) interviewed agency officials responsible for developing, implementing, and monitoring agency energy plans and programs, (5) reviewed agency records and files pertaining to energy programs and energy use, and (6) reviewed DOE's overall reports on federal energy use and trends.

We did not perform an overall evaluation of the agencies' energy conservation programs; rather we obtained available information in response to the Chairman's concerns on certain aspects of these programs. We relied on agency files and discussions with agency officials, particularly agency energy coordinators, in preparing this report. Also, as agreed with the Chairman's office, we did not independently determine the reliability and accuracy of energy use data reported by agencies or the potential savings from implementing agency plans; instead, we limited our review to obtaining information on agency and DOE's FEMP office actions to validate data, and agency estimates of savings that might result from implementation of their plans, respectively.

At the request of the Chairman's office, in order to expedite issuance of this report, we did not obtain agency comments. Instead, we discussed its contents with each of the 10 agencies whose activities we reviewed. Their comments have been incorporated in the report where appropriate.

Our work was conducted between January and August 1984. Except as noted above, our review was made in accordance with generally accepted government auditing standards.

#### PROGRESS IN MEETING ENERGY EFFICIENCY GOALS

Federal agencies have four goals for reducing energy use: two for existing buildings, one for new buildings, and one for petroleum use. These goals are to

--reduce energy use by 20 percent per gross square foot in existing buildings by 1985,

- make cost-effective energy conservation retrofits<sup>2</sup> by 1990,
- make new buildings 45 percent more energy efficient than existing buildings were in 1975, and
- reduce petroleum usage in buildings by 30 percent by 1985.

20-percent reduction in energy use in existing buildings

In 1977, the President established, through Executive Order 12003, a goal of reducing energy use by an average of 20 percent in existing federally owned buildings by 1985. The goal is based on the average annual energy use in 1975 per gross square foot of space.

Based on a review of energy use data and discussions with agency officials, the Postal Service and NASA have met the 1985 goals by reducing their energy use by 20 percent or more. In addition, DOE officials told us that they expected to achieve the 20-percent goal in 1985. The progress made by each of the 10 agencies toward meeting the 1985 energy reduction goal is shown on the next page.

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<sup>2</sup>Retrofitting involves improving energy use efficiency by modifying equipment or structures in existing buildings.

Status of 20 Percent Energy Reduction  
Goal for Existing Buildings

<u>Agency</u>	Reduction through fiscal year <u>1983</u>  (percent)	<u>Agency</u>	Reduction through fiscal year <u>1983</u>  (percent)
DOE	18.4	NASA	20.4
Postal Service	30.0	Interior	13.7
GSA	10.8	Agriculture	10.8
VA	12.6	HHS	2.0
Transportation	19.5	Justice	16.8

Source: Annual Report on Federal Government Energy Management, Fiscal Year 1983, Department of Energy.

As shown above, through fiscal year 1983, HHS had achieved a reduction of only 2 percent. According to agency officials, the primary reason for the small reduction was the transfer of 2.7 million square feet of relatively lower energy-using Public Health Service hospitals and clinics to other government agencies and the private sector. According to these officials, this transfer left HHS with a higher proportion of research labs, which use approximately twice as much energy per square foot as hospitals. These officials told us that if the effect of these transfers were adjusted out of HHS' energy use, the agency would have had a reduction of 11.6 percent through fiscal year 1983.

The energy coordinator at Agriculture stated that since 1979 the Department has been understating its energy reductions due to reporting errors. Beginning with 1979, Agriculture began reporting to DOE the energy used in departmentally controlled leased buildings, but it failed to adjust the square footage numbers for the additional space. With DOE approval, Agriculture is recomputing its energy-use data to correct this error. Based on preliminary calculations by the energy coordinator, Agriculture has achieved a reduction of approximately 16 percent through fiscal year 1983.

GSA pointed out that the energy reductions reported through fiscal year 1983 do not reflect all of the energy savings achieved by the agencies. For instance, the chart above shows that GSA achieved a reduction of 10.8 percent from 1975 through fiscal year



1983. However, according to GSA, energy use in existing buildings has decreased over 30 percent since the beginning of its program, which started in 1973.

Some agency energy coordinators pointed out that the reported energy reductions also do not reflect changes in agency missions or activities that might affect the attainment of energy goals. For example, VA estimates that by adjusting for the 60-percent increase in air conditioning tonnage installed at VA hospitals since 1975, the agency had achieved energy savings of 19.2 percent through fiscal year 1983. In addition, although he could not quantify the effects, the GSA energy coordinator noted that the agency's difficulty in meeting the 20-percent goal was partly due to such factors as the increased number of computers being installed in government buildings.

#### Cost-effective retrofits by 1990

The National Energy Conservation Policy Act (Public Law 95-619), enacted in November 1978, requires federal agencies to perform energy audits of government-occupied buildings and facilities and make all cost-effective retrofits by 1990. Agencies report information on their retrofit activities to DOE, which is required to prepare a consolidated annual report to the Congress.

Because of the way agencies provide information to DOE, it is difficult to determine progress toward meeting this goal. Since all retrofit projects in a building may not be completed in the same year, the extent to which agencies are achieving the retrofit goal is uncertain. According to DOE, tracking the exact square footage that agencies have retrofitted is difficult due to the procedures used to retrofit buildings. Agencies report that they are first funding the most cost-effective retrofit projects for a number of buildings, and, at a later time, undertaking less cost-effective projects--in many cases for the same buildings. Thus, in most cases, a building would not receive all known retrofit measures in a single year. The problem then is when to count the building as completely retrofitted. If a building is not counted until all measures are completed, progress toward the goal is understated in the early years. If counted when the first measures are installed, progress is overstated until the time that all cost-effective measures are completed.

Based on our review of agency buildings plans and discussions with agency officials, eight of the agencies did not expect to meet the goal. In contrast, the Postal Service had completed 72 percent of its retrofits as of August 1, 1984, and expected to have all retrofits done by 1985. In addition, VA officials told us that they expect to have their retrofits completed by 1990 but had no information on the number completed.

45-percent reduction  
for new buildings

Executive Order 12003 established a 45-percent energy reduction goal per gross square foot for all new federally owned buildings. This goal applies to all new buildings for which construction was not completed prior to November 9, 1978, and the design of which could feasibly be modified after November 14, 1979. The percentage reduction goal is based on 1975 building energy use.

Energy coordinators at all of the agencies included in our review said that their agencies are designing more-energy-efficient new buildings. However, at the time of our review, only DOE, the Postal Service, and GSA had completed new buildings and were attempting to compare actual energy use for new buildings with the designed level of energy use. GSA and the Postal Service were able to provide results of their comparison efforts. DOE does not yet have a full year of operating experience on which to make a comparison.

According to its analysis, GSA achieved an average reduction of 28.3 percent in the first year of operation of six buildings designed and constructed to meet the 45-percent goal. According to its energy coordinator, GSA is examining the reasons why buildings are not performing as well as designed and will take necessary corrective actions. The GSA energy coordinator also pointed out that the first year of occupancy is not a good year during which to measure energy use because the building operators are more concerned with learning how to operate the building than how to most efficiently provide heating, ventilation, and air conditioning--in other words, it is a break-in period.

The Postal Service provided information on 936 buildings occupied after June 1979 in evaluating its performance against the 45-percent goal. Total average energy consumption in these buildings has been reduced by 39 percent as compared to fiscal year 1975. The Postal Service energy coordinator told us that individual buildings not in compliance with the goal are reviewed and surveyed by its regional offices. According to the coordinator, these surveys have identified energy conservation opportunities involving equipment alterations or improvements in operations, and action has been initiated to take advantage of these opportunities.

30-percent reduction  
in petroleum use

DOE, in instructions to agencies for developing 10-year buildings plans, established a goal of reducing petroleum-based fuel consumption in buildings 30 percent by fiscal year 1985, based on fiscal year 1975 petroleum consumption levels. As shown in the following table, according to data reported to DOE, eight agencies have already exceeded the 30-percent goal; 7 of these

have achieved a reduction of over 50 percent. The other two agencies--Transportation and HHS--have achieved reductions of 1.3 percent and 10.6 percent, respectively.

Status of Reducing Petroleum-Based  
Fuel Use by 30 Percent

<u>Agency</u>	Reduction through fiscal year <u>1983</u>  (percent)	<u>Agency</u>	Reduction through fiscal year <u>1983</u>  (percent)
DOE	52.6	NASA	59.5
Postal Service	58.0	Interior	33.3
GSA	58.2	Agriculture	54.9
VA	59.9	HHS	10.6
Transportation	1.3	Justice	61.0

Concerning the small decrease at Transportation, the energy coordinator told us that the Coast Guard and the Federal Aviation Administration have most of the buildings and that while the Federal Aviation Administration had a 23-percent decrease in petroleum consumption, the Coast Guard had an offsetting 9-percent increase in petroleum consumption. At the time we completed our review, the coordinator said that the reasons for this increase were under study.

COMPARISON OF AGENCY PLANS WITH  
IMPLEMENTATION

The Energy Policy and Conservation Act (Public Law 94-163) requires development of an overall 10-year plan to conserve energy in federal buildings. DOE has responsibility for developing this overall plan, which provides a summary of individual agency 10-year building plans. Agency conservation activities are intended to be carried out in accordance with individual agency building plans, which Executive Order 12003 requires agencies to develop and submit to DOE. The plans were to cover the 10-year period ending in fiscal year 1985. However, as we previously reported,<sup>3</sup> most of these plans were not approved by DOE until after fiscal year 1981.

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<sup>3</sup>Status of the Federal Energy Management Program (GAO/RCED-84-86, Mar. 7, 1984).

The agency buildings plans, in accordance with instructions issued by DOE, outlined in general terms agency programs which would contribute to the achievement of the energy efficiency goals previously discussed. We were not able to determine agencies' progress in implementing their plans because comparison of agency plans with actual measures undertaken is difficult due to the general nature of the plans. The plans do not contain specific milestones or targets, such as completion of a certain number of projects within a given time frame. However, an indication of agency efforts to implement its plan is the conduct of technical audits. We were able to obtain information on the status of technical audits undertaken by the 10 agencies. A technical audit is a survey of a building conducted to identify energy conservation measures which can be undertaken and is an initial step in plan implementation.

Of the 10 agencies included in our review, 7 have completed technical audits, 2 have schedules for completing such audits, and 1 had no schedule and was not certain when the audits would be completed. However, not all buildings will receive an individual technical audit. For example, the Postal Service developed a list of projects that were known to be cost effective in almost any building. Instead of conducting audits of every building, it used this list to identify projects for those buildings which have similar characteristics. The table shows the status of technical audits by agency.

Status of Technical Audits

<u>Completed</u>	<u>Scheduled for completion</u>	<u>Completion date not scheduled</u>
Postal Service	DOE, in 1988	Transportation
VA	GSA, in 1984	
NASA		
Interior		
Agriculture		
HHS		
Justice		

We discussed completion of the audits with the energy coordinator at Transportation. As stated on p. 10, within Transportation, the Coast Guard and the Federal Aviation Administration account for nearly all of the buildings. The Coast Guard had done 65 percent of the audits it planned to do, but the Transportation energy coordinator did not know what percentage had been completed by the Federal Aviation Administration. The energy coordinator said that the Department conducts as many audits as available funds permit.

ORGANIZATION AND MANAGEMENT COMMITMENT

Although responsibility for an agency's conservation program rests with its principal conservation officer, day-to-day operations are under the overall direction of the agency's energy coordinator. We obtained information on the organizational placement of energy coordinators within the agencies, staffing available for energy conservation activities, and funding. With respect to funding, we obtained information on the annual expenditures for energy conservation retrofit and capital equipment. Other than funding energy conservation activities through maintenance and operations, which is usually small and included in the overall budget for maintenance and operations,<sup>4</sup> retrofit and capital equipment comprise the agencies' conservation budget. We found that the reporting by agency energy coordinators to the principal conservation officer varied, ranging from direct reporting to separation by four management levels; seven agencies have had reductions in their energy conservation staff between fiscal 1981 and June 1984, two of them exceeding 50 percent; and between fiscal years 1980 and 1983, for eight agencies for which information was available, energy conservation-related retrofit and capital equipment funding ranged from about \$63 million to about \$75 million.

Organizational placement of energy coordinators within the agencies

Primary responsibility for planning and implementing the agency's conservation programs rests with the agency's principal conservation officer. The DOE Organization Act (Public Law 95-91) required the heads of certain agencies and departments to designate an assistant secretary or an assistant administrator to be the agency's principal conservation officer. To encourage and support federal agencies' conservation efforts, DOE established the Interagency Federal Energy Policy Committee (656 Committee) to encourage coordination among the principal conservation officers. We previously reported<sup>5</sup> that the principal conservation officers were typically not attending 656 Committee meetings. Instead, lower level staff, such as energy coordinators, were attending in their places. At the most recent 656 Committee meeting, held on May 8, 1984, the Secretary and Under Secretary of Energy emphasized the need for high-level agency designees to attend these meetings.

The following table shows the number of management levels between the energy coordinator and the 656 designee--ranging from

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<sup>4</sup>These are changes which involve little or no capital investment, such as reduced heating and higher cooling temperature settings.

<sup>5</sup>Status of the Federal Energy Management Program (GAO/RCED-84-86, Mar. 7, 1984).

direct contact to four levels down in the agency organization. Only one agency coordinator reports directly to the designee. One is separated by one management level, and six by two or more management levels.

Levels Between 656 Designees and Energy Coordinators

<u>Agency</u>	<u>Report directly to 656 designee</u>	<u>One level</u>	<u>Two levels</u>	<u>Three levels</u>	<u>Four levels</u>
DOE				x	
Postal Service	b				
GSA			x		
VA					x
Transportation	x				
NASA			x		
Interior		x			
Agriculture					x
Justice					x
HHS <sup>a</sup>	—	—	—	—	—
Total	1	1	2	1	3

<sup>a</sup>HHS was not included among the agencies required to have a principal conservation officer.

<sup>b</sup>Postal Service was unique in that its 656 designee reports to the energy coordinator.

Staffing for conservation programs

We examined the staffing provided to oversee and direct agency conservation programs designed to meet the goals discussed in this report. From 1981 to 1984, 7 out of 10 agencies have had reductions in this staff; two of them exceeded 50 percent. Three agencies had no change. The following table shows the staffing provided for agency conservation programs in fiscal year 1981 and in June 1984.

Staffing for  
Fiscal year 1981 and June 1984

<u>Agency</u>	<u>Staff year equivalent</u>	
	<u>Fiscal year 1981</u>	<u>June 1984</u>
DOE	6	5
Postal Service	6	6
GSA	9	5
VA	2.5	2.5
NASA	3	2
Interior	14.5	6.75
Agriculture	3.5	2
HHS	2	2
Justice	1.25	0.25
Transportation	a	4.2

<sup>a</sup>Although the energy coordinator at Transportation was unable to provide us with specific staffing levels for fiscal year 1981, he indicated that staff reductions have occurred since then.

In addition to the agencies where staffing reductions have already occurred, the Postal Service is proposing reductions. The Postal Service has six full-time employees, including a Special Assistant to the Deputy Postmaster General and five regional coordinators. The regional coordinators will be phased out in 1985. The Postal Service energy coordinator stated that the staffing reduction was not due to a reduction in emphasis but rather due to the incorporation of energy management into overall Postal Service management activities. Further, at HHS, the position of energy coordinator and the headquarters staff positions, which have been the focal point for energy conservation activities, were abolished as of August 31, 1984, due to a reduction-in-force.

Energy conservation-related retrofit  
and capital equipment funding

We obtained energy conservation retrofit and capital equipment funding in fiscal years 1980 through 1983. Only 8 of the 10 agencies had information available over the 4-year period. For this period, funding for the eight agencies ranged from about \$63 million to about \$75 million. Over this period, four agencies--Postal Service, GSA, VA, and Agriculture--had increases and four agencies--DOE, Transportation, NASA, and HHS--had decreases.

The following chart shows actual funding for energy conservation projects, as reported to DOE by the agencies.

Federal Expenditures for Energy Conservation  
Retrofits and Capital Equipment  
(in millions)

	<u>FY 1980</u>	<u>FY 1981</u>	<u>FY 1982</u>	<u>FY 1983</u>
DOE	\$29.80	\$18.90	\$19.70	\$15.50
Postal Service	9.70	17.70	17.00	16.00
GSA	4.06	2.85	3.91	5.62
VA	12.09	15.79	15.57	17.00
Transportation	3.18	2.20	1.60	1.60
NASA	8.40	7.60	4.75	4.39
Agriculture	1.10	10.41	2.96	2.59
HHS	.80	0.0	0.0	0.0
Subtotal	<u>69.13</u>	<u>75.45</u>	<u>65.49</u>	<u>62.70</u>
Interior	6.33	a	a	7.98
Justice	<u>2.10</u>	<u>a</u>	<u>a</u>	<u>a</u>
Total	<u>\$ 77.56</u>	<u>\$75.45</u>	<u>\$65.49</u>	<u>\$70.68</u>

<sup>a</sup>Interior and Justice did not report expenditures to DOE for these years. Further, when we asked the energy coordinators for this information, they were unable to provide it because energy funding data were not compiled separately.

RELIABILITY AND ACCURACY OF  
ENERGY CONSERVATION DATA

Federal agencies report their energy use quarterly to DOE's FEMP office. DOE compiles these data into an annual report<sup>6</sup> that outlines activities, progress, and achievements of agency energy conservation programs. We obtained information on what the individual agencies and DOE do to verify energy conservation data.

DOE FEMP officials told us that the FEMP staff manually checks the energy-use data for inconsistencies and follows up with the agencies when data show questionable variations from previous submissions. No other verification is performed. We were told by a DOE FEMP official that because of limited resources, DOE's FEMP office cannot independently verify agency energy data.

Concerning procedures used by agencies to verify energy data, we found that data collection and verification procedures varied

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<sup>6</sup>The most recent one is Annual Report on Federal Government Energy Management, Fiscal Year 1983, August 1984 (DOE/CE-0043/2).



among the agencies and generally consisted of reviewing the reported energy-use data by looking for inconsistencies. DOE, Postal Service, and GSA energy coordinators told us that their agencies use computers to identify unusual variations or inconsistencies, while the other agencies rely on visual inspections. VA's data is compiled by a contractor from actual bills, and Agriculture uses a centralized payment center to compile information from the bills paid.

POTENTIAL SAVINGS ESTIMATED  
BY AGENCIES

Neither DOE's annual reports to the Congress on federal energy use<sup>7</sup> nor agencies' 10-year building plans contained estimates of potential energy savings.

We asked agency energy coordinators if estimates of potential energy savings had been prepared for their agencies or if they could make such estimates. Seven replied either that no estimates were available or that they had no idea of the potential savings. Of the remaining three, the GSA energy coordinator estimated that another 10 percent could be saved, and the NASA energy coordinator estimated that an additional 5 to 10 percent could be saved beyond what had been achieved to date. The Postal Service energy coordinator estimated that an additional 5 to 10 percent could be saved through 1990.

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<sup>7</sup>The most recent of these are Sixth Annual Report to Congress on Federal Energy Conservation Programs, Fiscal Year 1982, Feb. 1984 (DOE/CE-0040/1) and Annual Report on Federal Government Energy Management, Fiscal Year 1983, August 1984 (DOE/CE-0043/2).