BY THE COMPTROLLER GENERAL

Report To The Congress

OF THE UNITED STATES

The Federal Government Needs A Comprehensive Program To Curb Its Energy Use

The Federal Government is not making a sufficient commitment to curbing its energy use. Its program to conserve energy is in disarray. Although the Congress and the President have enacted and issued legislative and executive guidance, a comprehensive and aggressive energy conservation program for the Federal sector has not been developed. The Department of Energy's efforts have been minimal and Federal agencies have resisted Energy's attempts to establish a meaningful program.

The Federal Government--the Nation's largest consumer of energy--needs a comprehensive, centrally directed program to curb energy use. This report contains recommendations to the Congress, the President, and the Department of Energy to establish such a program.

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DECEMBER 12, 1979

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

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To the President of the Senate and the
Speaker of the House of Representatives

This report discusses (1) what the Federal Government has been doing to manage its in-house energy conservation efforts and (2) how the Government can establish a comprehensive and aggressive Federal energy management program. Specifically, this report identifies problems with the Federal energy conservation program, discusses policy issues and specific measures to promote Federal energy conservation, and recommends actions, which should be initiated by the Congress, the President, and the Department of Energy to establish a strong and effective conservation program.

Copies of this report are being sent to the President of the United States; the Director, Office of Management and Budget; the Secretary of Energy; the chairmen of energy-related congressional committees; and the heads of appropriate Federal agencies.

Comptroller General
of the United States

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COMPTROLLER GENERAL'S
REPORT TO THE CONGRESS

THE FEDERAL GOVERNMENT NEEDS A COMPREHENSIVE PROGRAM TO CURB ITS ENERGY USE

D I G E S T

The Federal Government's program to conserve energy is in disarray. In spite of legislative and executive guidance, a comprehensive, aggressive energy conservation program for the Federal sector has not been developed. While individual agencies have made some progress in conserving energy, these efforts have been fragmented and piecemeal because the Department of Energy has not taken an active leadership role.

The Federal Government needs a comprehensive program to curb its energy use, embracing all aspects of energy conservation. The Government has the obligation to meet the same standards advocated or mandated for the rest of the Nation. In fact, it should be a leader in energy conservation.

The President has suggested reducing Federal energy consumption by 5 percent. In GAO's opinion, the 5-percent target is much too modest and, based on identified opportunities, consumption can be reduced much more than this. Considering that each percentage point reduction in Federal energy consumption saves the equivalent of about 8,000 barrels of oil a day, the importance of not setting goals too low is obvious.

GAO believes the lack of an enterprising Government conservation program stems largely from the Department of Energy's failure to take the lead. Lack of administration commitment and support for a strong program, coupled with Federal agency resistance to Energy's attempts to establish a meaningful program, also contributed to an inadequate Federal conservation effort.

GAO found:

--Energy has not developed energy conservation plans for buildings as required by legislation and Executive orders. (See pp. 6 to 9.)

--Energy has not issued guidance for Federal agencies to use in developing overall energy conservation plans. (See pp. 9 and 10.)

--Energy's Federal Energy Management Program, which is responsible for the Federal conservation effort, is not capable of managing a comprehensive program because it does not have sufficient resources and organizational status. (See pp. 10 to 12.)

--Although the Federal Government has reduced its energy use significantly, most of these reductions resulted from quick-fix changes that occurred between 1973 and 1974. (See pp. 12 and 13.)

--Federal energy consumption data shows that since fiscal year 1975 the Government's energy use has increased in 2 of the last 3 years. (See pp. 12 and 13.)

--Federal consumption of gasoline, a precious product, has increased 18 percent since 1974 while use of coal, a plentiful energy source, has decreased 27 percent. (See p. 13.)

--Energy has taken a hands-off approach to managing Federal energy conservation efforts and does not intend to strengthen the Federal energy conservation program. (See pp. 14 and 15.)

RECOMMENDATIONS

The Congress should enact legislation which expresses the priority and emphasis that should be placed on the issue of energy use and management in the Federal sector and consolidate existing laws. The legislation should:

--Require the President to develop and implement through the Department of Energy an aggressive and comprehensive Federal Energy Management Program and clearly define the roles, authority, and responsibilities that the Department of Energy and other executive branch agencies are to fulfill in the program.

--Require under the Federal Energy Management Program's purview the development and implementation of specific plans and programs.

--Require the President to complete action on the above items within 18 months after legislation is enacted and report to the Congress.

--Provide to the Department of Energy central funding and control over energy conservation funds and restrict such funds to energy conservation use.

In view of the national importance of energy conservation and the need to establish immediately an aggressive Federal program to conserve energy, GAO recommends that the President not wait for congressional actions specified in this report and issue a new Executive order which incorporates a Federal energy management policy statement and provides for an aggressive and comprehensive program. The order should as a minimum:

--Define the priority agencies are to place on energy conservation and assign the Department of Energy responsibility for the Federal Energy Management Program.

--Specify clearly and precisely agency roles, authority, and responsibilities.

--Provide for aggressive action to implement legislative and Executive order requirements.

--Require Office of Federal Procurement Policy to develop more specific procurement strategies, guidelines, and procedures for considering energy use in Federal purchases and coordinate this effort with the Department of Energy.

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--Require annual progress reports from the Secretary of Energy.

Upon enactment of new legislation by the Congress, the President should revise the Executive order as appropriate for legislative compliance.

GAO recommends that the Secretary of Energy assist the President in this effort by immediately taking the following actions:

--Establish within the Department of Energy a high-ranking Federal Energy Management Program office reporting directly to the Under Secretary.

--Assign to this office broad responsibility for all aspects of Federal sector energy conservation plans and programs currently assigned to the Department.

--Provide adequate funding and personnel resources to the office.

--Direct appropriate Department of Energy officials to implement expeditiously adequate energy conservation plans and guidelines as intended under energy legislation and Executive orders.

--Direct this office to develop an approved management plan for carrying out responsibilities.

AGENCY COMMENTS

This report was provided to the Energy and Defense Departments, the Office of Management and Budget, the General Services Administration, and the White House Staff for formal comment. The Office of Management and Budget, the General Services Administration, and the Department of Defense comments and GAO's response are included in appendixes II, III, and IV. Comments from the Department of Energy and the White House Staff were not received.

The Office of Management and Budget disagreed with GAO's view on centralization of the Federal Government's program to conserve energy and indicated that a decentralized management approach to Federal energy conservation is preferable. However, the Office, agreeing with GAO, stated that Energy can and should actively monitor Federal Government energy consumption trends and conservation opportunities and assist agencies needing help in developing energy conservation programs. With respect to decentralization, the Department of Defense expressed a similar position. The General Services Administration said it was not opposed to central leadership and coordination by Energy, but was opposed to unnecessary rules and bureaucratic controls that might result and slow down the progress being made by the agencies.

GAO disagrees with the Office of Management and Budget's and the Department of Defense's position on decentralization and believes the Federal Government needs a more centralized approach to fulfill its leadership role in energy conservation. GAO recognizes the General Services Administration's concern that establishment of a comprehensive Federal Energy Management Program with Department of Energy central leadership and coordination would result in more administrative review and approval. However, GAO believes that, if the program is properly managed, this burden need not be excessive and the benefits would far exceed any costs. An effective management program would assure energy conservation funds are allocated to the most attractive projects and eliminate needless duplication by the agencies.

Contents

ABBREVIATIONS

Btu	British thermal unit
DOD	Department of Defense
DOE	Department of Energy
EPCA	Energy Policy and Conservation Act
FEMP	Federal Energy Management Program
GAO	General Accounting Office
GSA	General Services Administration
GOCO	Government-owned, contractor-operated
NECPA	National Energy Conservation Policy Act
OFPP	Office of Federal Procurement Policy
OMB	Office of Management and Budget
USPS	United States Postal Service

CHAPTER 1

INTRODUCTION

The Federal Government needs a new perspective for reducing its energy use. It has not made a sufficient commitment to curb Federal energy consumption despite the Nation's growing dependency on foreign oil imports and the undesirable economic consequences associated with energy shortages. Contrary to legislative and executive directives, it has not yet established a comprehensive energy conservation program.

We have identified three problems which limit conservation, both in the Nation as a whole and in the Federal sector in particular:

--The lack of an aggressive, coordinated effort to conserve energy in Federal operations and facilities.

--The lack of consistent, specific planning which clearly identifies what contribution energy conservation is to make in the overall national energy plan.

--The failure of the administration to develop in a timely manner, and have approved by the Congress, emergency energy conservation and gasoline-rationing plans.

In this report, we look at the first of these three overriding problems.

THE NEED FOR FEDERAL ENERGY CONSERVATION

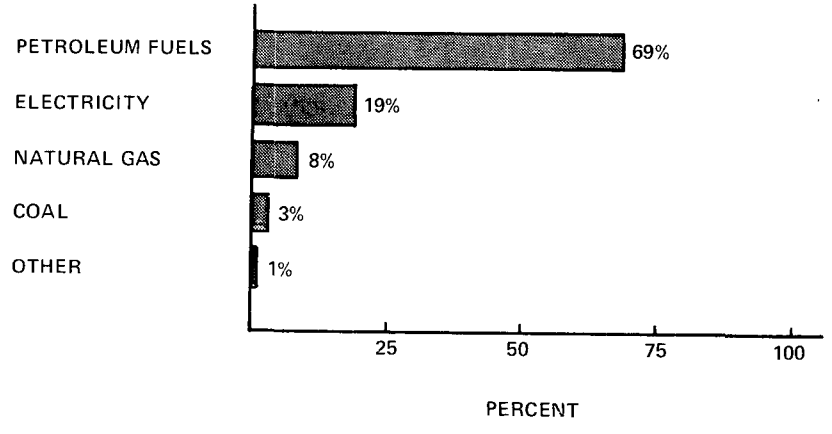
The Federal Government has an unique opportunity to save large amounts of energy and lead the Nation by demonstrating, within its own domain, an aggressive energy management program. The Government is the Nation's largest single energy user, directly accounting for over 2 percent of U.S. energy consumption. This represents the equivalent of about 282 million barrels of oil a year--worth over $4 billion. About 45 percent of this energy is used in buildings and facilities and 55 percent is used to operate vehicles, aircraft, ships, and equipment (transportation), as shown below.

Fiscal Year 1977 1/
Federal Energy Use

	Million barrels of oil equivalent	Percent
Buildings and facilities	128	45
Transportation	154	55
Total	282	100

In addition, the Government uses much energy indirectly through other activities. A RAND Corporation study indicates that from 4 to 7 percent of total national energy consumption is in support of the Government's purchase of goods and services. Consequently, the Federal Government can exert influence far beyond its relative size and overall consumption level.

Like the Nation, the Government relies heavily on our most precious non-renewable resource--petroleum. The Department of Energy (DOE) reported that in fiscal year 1977 the Government consumed about 194 million barrels of petroleum, including about 19 million barrels to generate electricity. This represents 69 percent of the Government's direct energy use from all sources, as shown below.



1/Data obtained from the Department of Energy. See scope section (p. 4) for explanation of availability and reliability of energy use data.

Although the Federal Government has made some progress in reducing its energy use, the most recent data reported by DOE shows that between 1976 and 1977 there was an increase in Federal energy use of over 2 percent. This indicates to us that the Federal Government is not doing enough to conserve energy.

LEGISLATIVE AND EXECUTIVE CONSERVATION MANDATES

Since 1973, legislation and executive guidance have promoted energy conservation within the Federal Government. A June 1973 Presidential memorandum established the Federal Energy Management Program (FEMP) to manage the Government's own energy use. In December 1975 the Congress enacted the Energy Policy and Conservation Act (EPCA) (Public Law 94-163) requiring the President to develop and implement a 10-year plan to conserve energy in Federal buildings. To accomplish this effort, the President issued Executive orders directing DOE to develop this plan. In addition, the President mandated certain energy conservation measures for Federal buildings and automobile purchases.

In November 1978 the Congress enacted the National Energy Conservation Policy Act (NECPA) (Public Law 95-619) which requires Federal agencies to, among other things, perform energy surveys of Government-occupied buildings and facilities and retrofit them for energy efficiency to the maximum cost-effective extent by 1990. Additionally, the Congress has mandated other Federal energy conservation measures, including the development of

--solar heating and cooling demonstration programs for Federal residential and commercial buildings and facilities under Public Laws 93-409 and 95-619,

--a photovoltaic energy program to accelerate procurement and installation of photovoltaic solar electric systems in Federal facilities under Public Law 95-619,

--mandatory energy conservation and efficiency standards to govern Federal procurement policies and decisions under Public Law 94-163, and

--energy conservation performance standards applicable to Federal buildings constructed following the establishment of such standards under Public Law 94-385.

SCOPE

Because Federal in-house efforts to conserve energy play an important role in helping to solve the Nation's energy problems, we have been continually reviewing and reporting on these activities. Since 1976 we have issued ten reports (listed in app. I) on various aspects of Federal energy conservation. This report assesses the current status of the Federal energy conservation program and provides a new perspective for Federal leadership. In particular, this report

--discusses problems with Federal energy conservation efforts,

--discusses policy issues and specific measures to promote energy conservation in the Federal sector, and

--recommends actions which should be initiated by the Congress, the President, and DOE to promote a strong and effective Federal energy conservation program.

This report contains Federal energy use data from fiscal years 1973 through 1977. This data was obtained from official Department of Energy reports and, as of September 1979, was the most reliable and comparable data available. In early 1979 Department officials provided us with preliminary fiscal year 1978 data. These officials, however, cautioned us that the data had not been reviewed or formally approved. Our preliminary review of the 1978 data showed that this data was not comparable to prior-year data contained in previous DOE reports because the Department of Defense (DOD) had changed its basis for reporting and the data was continually being revised to correct inaccuracies. Consequently, because of reliability and comparability problems we were precluded from incorporating this data in our report.

We believe that the unavailability of more recent data underscores the seriousness of the problem which exists in FEMP and supports our conclusion regarding the overall adequacy of the Federal energy conservation program. Our conclusions are not based primarily on energy use statistics but on our analysis of the elements comprising a comprehensive and aggressive program. Over the past 3 years, we have continually found that DOE has not provided any significant guidance to agencies or even developed plans required by law. Rather, we found a total lack of progress in establishing an

aggressive and comprehensive program. Because such a program has not been established, nor can one be established overnight, more recent data would not alter our views regarding the overall issues contained in the report.

In performing our evaluation, we discussed Federal energy conservation efforts with numerous Federal agencies, including DOE, DOD, the General Services Administration (GSA), and the Office of Management and Budget (OMB). In addition, we visited field locations and reviewed and analyzed numerous reports and studies relating to Federal energy use and the efforts being made to conserve energy.

In the following chapters we present our findings, conclusions, and recommendations concerning the Federal Government's efforts to conserve or use more efficiently the energy it consumes. Chapter 2 discusses and assesses the Federal efforts to save energy, and chapter 3 provides a new perspective for Federal leadership in energy conservation. Our conclusions and recommendations are presented in chapter 4.

CHAPTER 2

THE FEDERAL GOVERNMENT'S PROGRAM TO CURB ITS ENERGY USE IS IN DISARRAY

Although the Congress and the President have enacted and issued legislative and executive guidance, the DOE has not developed a comprehensive and aggressive Federal energy conservation management program. While some progress has been made to promote energy conservation, the Federal Government does not have a plan or program which befits the largest energy consumer in the Nation. Further, DOE has taken a "hands off" approach with respect to Federal agencies' energy conservation efforts despite direction to plan and direct energy conservation within the Federal Government. Unless DOE takes an active leadership role and establishes a strong program, Federal conservation efforts will continue to be fragmented.

ENERGY CONSERVATION PLANS HAVE NOT BEEN DEVELOPED AND IMPLEMENTED

The basic framework for energy conservation planning has been established by both legislation and Executive orders; however, DOE has not yet fulfilled its planning responsibilities. Planning is a first step in establishing a strong and comprehensive energy conservation program and the means through which DOE can exercise its leadership role. Draft plans that have been proposed are incomplete and are not adequate to insure a strong Federal energy conservation program which will meet established energy-use reduction goals.

No plan for Federal buildings as required by law

Almost 4 years after the EPCA requirement was established, the Federal Government still does not have an approved 10-year plan for improving the energy efficiency of its buildings. Section 381(a)(2) of EPCA requires the President to develop and implement a 10-year plan for energy conservation in buildings owned or leased by the Federal Government. This plan must include mandatory lighting and thermal efficiency standards, mandatory insulation requirements, restriction on hours of operation, thermostat controls and other conditions of operation, and plans for replacing or retrofitting to meet such standards.

Executive Order 11912, issued in April 1976, and amended by Executive Orders 12003 in July 1977 and 12038 in February 1978, requires DOE to develop the plan called for by the law. Executive Order 12003 also established energy reduction goals for 1985 of 20 percent for existing buildings and 45 percent for new buildings, based on 1975 energy use per square foot. Each of these legislative and executive actions clearly implies strong management and policy directions with respect to energy conservation in Federal buildings and facilities.

Development of a 10-year plan was well underway in June 1977 when a consultant provided DOE with a draft plan. The plan addressed retrofitting existing buildings, new buildings, leased space, building operations, and development of standards for lighting and thermal efficiency. Further, this draft had detailed planning concepts and outlined information gathering systems to assist agencies in developing their internal 10-year plans and in evaluating their performance against these plans. In December 1977 we issued a report 1/ to DOE assessing its effort to develop an effective retrofit plan. Although the plan needed improvement in several areas, we concluded that the plan was generally comprehensive and provided agencies with detailed guidance for developing a retrofit program.

Subsequently, DOE discarded this 10-year plan, which would have substantially met EPCA requirements, in favor of developing limited guidelines. In July 1978 we expressed our concerns in a second report 2/ to DOE that the development of the 10-year plan for energy conservation in Federal buildings was not being aggressively pursued. Further, we found DOE's efforts would not adequately fulfill the requirements of EPCA.

We have continued to monitor DOE's efforts to develop a meaningful plan. In March 1979 DOE completed another draft 10-year plan. The draft still fails to sufficiently consider several aspects of a comprehensive energy conservation plan as envisioned by the legislation. In this regard, the following important areas required by EPCA are not adequately addressed:

1/"Evaluation Of The Plan To Conserve Energy In Federal Buildings Through Retrofit Programs," EMD-78-2, Dec. 22, 1977.

2/"Evaluation Of The Plan To Conserve Energy In Federal Buildings Through Retrofit Programs," EMD-78-89, July 20, 1978.

--Energy conservation in leased space.

--Lighting and thermal efficiency standards.

--Energy efficiency improvements in buildings operations.

--Energy conservation in Government-owned, contractor-operated (GOCO) facilities.

To the extent these areas are discussed in DOE's draft plan and in proposed guidelines for agency building plans recently published in the Federal Register, it is primarily in the context that the agencies will, on their own, address them. Thus, there is virtually no planning by DOE in these important areas.

With respect to leased space, for example, DOE's original draft plan indicated that such space is probably less energy-efficient than federally-owned space and even suggested approaches with which to attack the problem. Subsequent drafts have virtually ignored this area. Currently, agencies vary considerably with respect to their energy conservation efforts in leased space. For instance, GSA requires non-uniform lighting and specific energy-conserving heating and cooling requirements, and considers energy use as an award factor for any lease over 30,000 gross square feet. However, DOD and the United States Postal Service (USPS) have not consistently specified energy conservation requirements for leasing existing buildings.

DOE's current draft plan forecasts that leased space in the Federal buildings inventory will increase markedly by 1990. Given the increasing importance of this area, and the EPCA requirements, DOE should be aggressively pursuing this question of leased space. We believe DOE's 10-year plan should, at a minimum, include and require all agencies to follow GSA's criteria for new leases or lease renewals.

Similarly, DOE's current draft plan does not address energy conservation in Government-owned, contractor-operated facilities. While the broad definition of "Federal building" includes GOCO plants, no recognition of the special problems which may arise in such industrial facilities is provided in DOE's draft plan. Also, there is no effort to bring Government contractors under the plan's purview. This would seem especially relevant for those contractor plants where production is for Government use. We believe DOE should

specifically include these industrial facilities as part of its plan.

DOE's failure to plan for many areas where significant energy conservation opportunities exist weakens the plan's entire structure and credibility. While retrofit, the primary area covered in the plan, is important, it should not be emphasized to the exclusion of other areas. If DOE does not take advantage of all conservation options available in the buildings and facilities area, the program will not achieve the maximum cost-effective energy conservation potential.

No overall conservation plan for general operations

In addition to the requirements for a 10-year plan for buildings, a November 4, 1976, Presidential memorandum directs Federal agencies to establish specific plans for energy savings and directs DOE to work with these agencies to establish individual agency goals for energy conservation. Executive Order 12003 reiterated these requirements by directing each executive agency to submit to DOE an overall plan for conserving energy in agency operations. Each agency is also required to report annually to DOE on the progress made toward achieving the goals established in its overall plan. These requirements provide DOE with the authority and the means to direct energy conservation efforts and evaluate results.

We found, however, that DOE has not issued any guidance for Federal agencies to use in developing their overall energy conservation plans. For example, we reported 1/ that DOE has not provided guidance to Federal agencies for use in developing transportation energy conservation plans and has not assisted them in establishing specific goals for reducing transportation energy consumption. This in spite of the fact that transportation accounts for over half of the Government's total energy use.

Part of the problem is attributable to the low-level emphasis given to FEMP by DOE. No person in DOE is responsible for promoting transportation energy conservation, and no staff has been assigned to work with the agencies to develop the required conservation plans. The primary effort

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1/"Transportation Energy Conservation In The Federal Government," EMD-79-3, Jan. 25, 1979.

relating to the transportation area has been to collect and compile energy consumption data reported by Federal agencies.

Although DOE has not fulfilled its planning responsibilities, individual Federal agencies have implemented energy conservation measures and have reported energy savings. For example, in the transportation area, the Department of Defense has increased its use of aircraft, ship, and vehicle simulators, and USPS has evaluated and is using electric vehicles. The agencies, however, are operating independently of one another. The result is a fragmented Federal Government energy conservation approach with needless duplication of effort among agencies. For example, we reported 1/ that duplicate testing has occurred because no single agency is responsible for coordinating evaluations of energy-conserving devices. In commenting on our report, DOE declined to accept responsibility for coordinating evaluations of energy-saving products.

Additionally, DOE has not assisted agencies in establishing goals for overall operations, and no Federal agency has formally submitted a conservation plan to DOE. Unless DOE takes an active role in establishing overall goals and plans, energy conservation in transportation and other general operations will continue to be a piecemeal effort, with little control or monitoring of achievements against plans.

FEDERAL ENERGY MANAGEMENT IS EXTREMELY WEAK

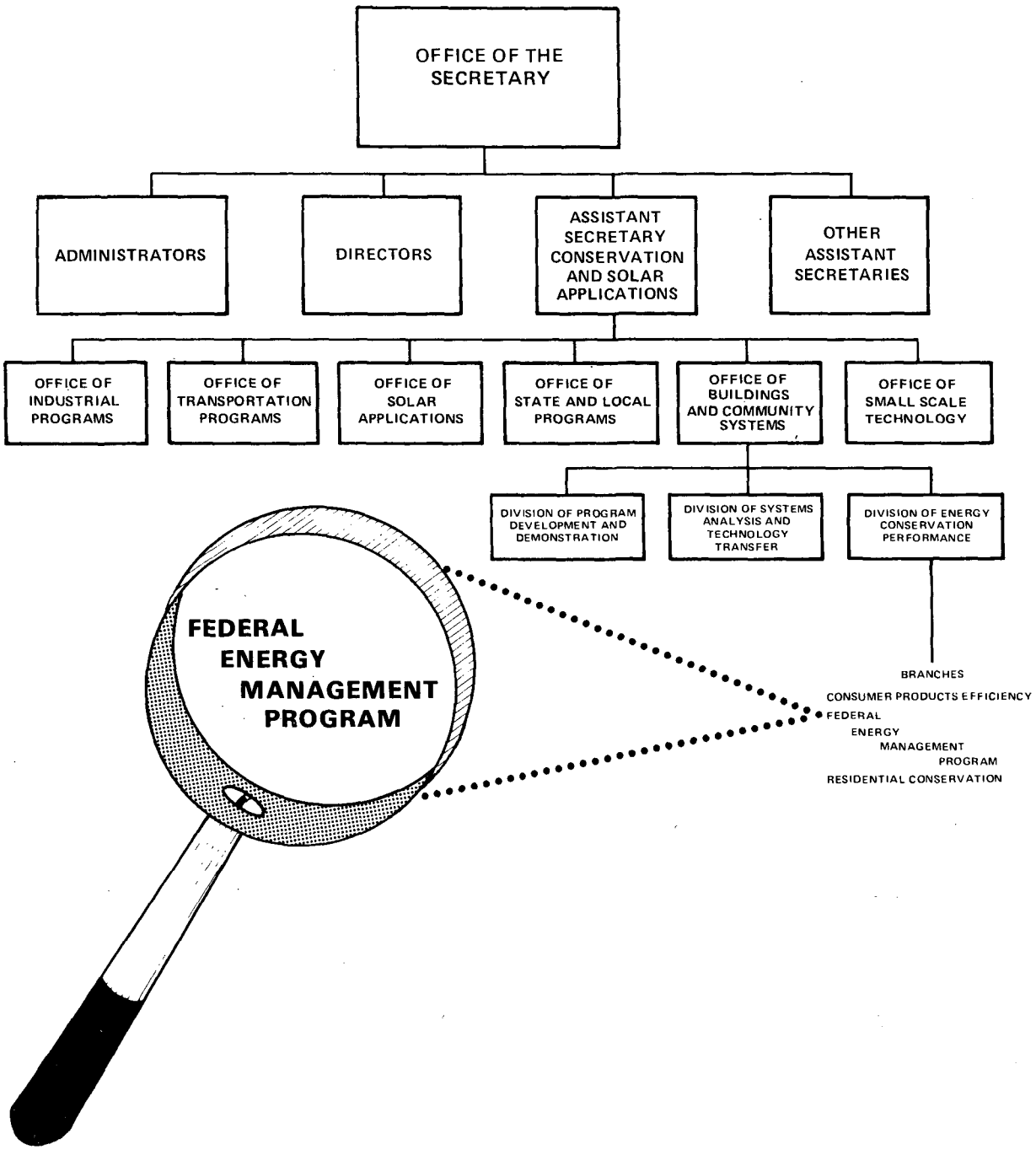
The Federal Government's effort to manage its own energy use is weak and lacks specific management emphasis. FEMP, the organization responsible for this effort, is not capable of fulfilling its planning and management responsibilities.

As it currently exists, FEMP is only a token program. Organizationally, FEMP's placement, staffing, and funding levels are low. The program is only a small part of the Office of Buildings and Community Systems, and this office is only one of six comparable organizational elements reporting to DOE's Assistant Secretary For Conservation and Solar Applications, as shown below.

1/"More Use Should Be Made of Energy-Saving Products In Federal Buildings," EMD-79-11, Jan. 23, 1979.

ORGANIZATIONAL CHART PINPOINTING FEMP WITHIN THE DEPARTMENT OF ENERGY

JUNE 1979



With respect to staffing, FEMP has only five employees, four less than the program had in fiscal year 1978. Moreover, DOE in its fiscal year 1980 budget requested only $400,000, or 33 percent less than its fiscal year 1978 and 20 percent less than its fiscal year 1979 funding levels.

FEMP was initially established to manage the Government's overall energy conservation program. However, the program has not received the resources or organizational status which enables it to do much more than collect, compile, and report on Federal energy consumption data. For example, the program has only four professional staff members to develop and issue

--a 10-year buildings plan,

--guidelines for overall conservation plans,

--guidelines for life cycle costing,

--lighting and thermal efficiency standards,

--guidelines for buildings audits, and

--annual reports.

We believe that given the complexity of its role, FEMP cannot hope to effectively manage the Federal conservation effort with such scant resources.

THE FEDERAL GOVERNMENT NEEDS A STRONGER ENERGY MANAGEMENT PROGRAM

Today, more than ever before, the Federal Government needs an aggressive program to control and reduce its own energy use. Federal efforts to conserve energy have not been very impressive in recent years. Although the Federal Government has reduced its energy use significantly, most of these reductions resulted from quick-fix changes that occurred between 1973 and 1974. Since that time, energy savings have not been spectacular--decreasing only 2.7 percent between 1974 and 1977. A comparison of reported Government energy-use data indicates that in 1975 and 1977 energy consumption increased over preceding years.

Federal Government Energy Use
1973 to 1977

Fiscal year	Energy use (trillion Btus)	Percent change from previous year
1973	2,212.85	-
1974	1,687.92	-23.7
1975	1,704.57	+ 1.0
1976	1,606.68	- 5.7
1977	1,641.54	+ 2.2

Further, comparison of available Federal energy use data by fuel source indicates the Government's conservation efforts have not been in harmony with national objectives. As shown below the Federal Government's use of gasoline, a scarce petroleum product, has increased between 1974 and 1977, while its use of coal, an abundant resource in this country, has significantly decreased. This is clearly inconsistent with the national objective of reducing our dependence on petroleum and placing more reliance on coal.

Comparison of Federal Energy
Use for Fiscal Years 1974 and 1977 by
Fuel Source

Fuel source	Energy use			Percentage change
	1974	1977	Change	
	(trillion Btus)			
Electricity	371.3	425.2	+53.9	+14.5
Gasoline	54.0	63.9	+ 9.9	+18.3
Petroleum	1038.1	954.6	-83.5	- 8.0
Natural gas	153.6	138.9	-14.7	- 9.5
Coal	67.5	49.2	-18.3	-27.1
Other	3.4	9.7	+ 6.3	+185.3
Total	1,687.9	1,641.5	-46.4	- 2.7

Federal agencies recognize that further energy reductions will require a sophisticated program and more intensive capital investments. According to DOE, an aggressive buildings conservation program alone could cost up to $3.4 billion over a 10-year period. We believe this more sophisticated effort will require a greater degree of management guidance and control. Further, if the Government does not develop such a program, we believe that past conservation gains may be lost

Last winter's crisis concerning Iran is a good example. In responding to this situation the President, on February 2, 1979, found it necessary to issue a memorandum which directed agency heads to establish goals, prepare plans, and issue implementing instructions to reduce Federal energy use. This directive is similar to previous executive mandates, and its issuance and connotation implies a temporary response. While we recognize the importance of these measures in responding to the Iranian problem, we believe the measures need to be an everyday consideration in a comprehensive energy conservation program and should have been accomplished years ago.

DOE'S FEDERAL ENERGY MANAGEMENT PHILOSOPHY--HANDS OFF

DOE has consistently taken the position that no comprehensive program is needed, and it does not intend to take any action to establish such a program. We have continually reported to DOE that it is not adequately planning and directing Federal energy conservation efforts and that numerous opportunities to improve energy conservation are not being exercised. In response to our reports and in Congressional testimony, DOE has stated that it should have no role in coordinating and managing agency conservation efforts. Instead, DOE views its conservation role as merely a promoter and monitor of energy conservation efforts and has not indicated to us that it intends to improve or strengthen its conservation program.

We continue to believe that DOE should establish an effective conservation program which provides for its active participation in guiding and directing overall Federal conservation efforts. In this respect, the Department should be setting goals and priorities regarding specific energy conservation initiatives. Further, DOE should be planning, guiding, and evaluating agency efforts as part of a total management program. In a recent congressional hearing, it was disclosed that DOE's own view of its role was to devise

a Federal energy conservation effort with the lightest touch humanly possible. In our opinion, this approach violates the spirit and intent of the law.

CHAPTER 3

FEDERAL ENERGY CONSERVATION--PERSPECTIVE FOR LEADERSHIP

The Federal Government needs to develop a comprehensive umbrella-type conservation program to curb its energy use. This program should be aggressive and embrace all Federal energy conservation efforts in both the transportation and buildings sectors. The buildings sector should encompass and fully integrate solar and cogeneration technologies, with conventional conservation measures for buildings. Although ample authority exists to establish a strong conservation program, no such effort is underway. This chapter discusses why a serious commitment is needed and how the Federal Government can establish a viable and comprehensive energy conservation program.

RATIONALE FOR AN AGGRESSIVE ENERGY CONSERVATION PROGRAM

The Government has an obligation to implement actions consistent with national energy policy and cannot continue to advocate and mandate actions for the private sector while only paying lip service to its own program. The Congress has clearly indicated in legislation that energy conservation is of national importance and that the Federal Government should be in the forefront in implementing energy conservation measures. The President in his April 1977 National Energy Plan referred to conservation as the cornerstone of energy policy. As recently as April 1979, the President reinforced this position by requiring Federal agencies to reduce energy consumption by 5 percent. Based on our observations of identified conservation potential in earlier work and estimates of potential from numerous studies that have been done for the Government and the private sector, we believe the Government should set higher goals. This is particularly important since a 1-percent reduction in Federal consumption saves the equivalent of about 8,000 barrels of oil a day based on 1977 data.

In hearings before a congressional committee, a DOE official testified that overall savings of between 10 and 15 percent are achievable. Our prior work and analysis of data show even higher potential, indicating that the Government could reduce its overall energy use by about 15 to 30 percent with a thorough and aggressive program. An effort of this magnitude could save the equivalent of 116,000 to 232,000 barrels of oil per day and be responsive to and consistent with national energy policy.

To achieve energy savings of this extent the Federal Government must develop more than a token conservation program. Actions that should be taken to establish a comprehensive program for planning, implementing, monitoring, and evaluating a long-term conservation effort include an array of legislative, policy, and program initiatives; conservation measures; funding controls; and procurement strategies to assure the Government receives the most benefits for its investment.

LEGISLATIVE AND POLICY INITIATIVES

Although the existing legislation provides the basic framework and guidance for the development of a comprehensive and aggressive Federal energy conservation program, the Congress should consider legislation which would provide for a revitalized and aggressive FEMP and consolidate existing Federal energy conservation legislation. Currently, FEMP, which was created by Executive order and is managed by DOE, is only a token program. We believe, legislation recognizing FEMP and providing clear direction as to its role, authority, and responsibility would provide the impetus needed to initiate a strong and comprehensive Government program. Such a program could provide the direction needed to assure energy is conserved and used in the most effective and efficient manner.

Further, we believe consolidation of legislation governing Federal efforts to curb energy use would help clarify existing legislation. As noted on page 3, Public Laws 93-409, 94-163, 94-385, and 95-619 mandate different programs and requirements for Federal energy conservation and use of renewable energy sources. However, some of this legislation has caused confusion and misunderstanding on the part of DOE. For example, we reported 1/ that there is overlapping authority between DOE's two solar heating and cooling demonstration programs under the Solar Heating and Cooling Demonstration Act of 1974 and the Solar in Federal Buildings Demonstration Program authorized by NECPA.

In addition, EPCA requires the development of lighting and thermal efficiency standards for Federal buildings. DOE has expressed concern over the interpretation of this requirement and the technical difficulties involved in trying to develop workable standards. Compounding these problems is DOE's legislative requirement, contained in section 304 of the Energy Conservation and Production Act, to establish energy

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1/"The Solar in Federal Buildings Demonstration Program," EMD-78-84, Aug. 10, 1979.

conservation performance standards for all new buildings. Section 306 of that act states that any Federal building constructed following the establishment of the standards must meet or exceed the energy conservation performance standards.

DOE officials have expressed the opinion that the establishment of national energy conservation performance standards will negate the need to establish lighting and thermal efficiency standards for new Federal buildings. This view is based on the premise that energy conservation performance standards will necessarily encompass the energy consumed by a building's lighting and thermal components.

We believe the Congress needs to reaffirm the priority and emphasis for energy conservation in the Federal sector. New legislation should eliminate any ambiguities that may presently exist and also direct the President to establish a strong and comprehensive Federal energy conservation program giving adequate authority and direction to DOE.

Recognizing that it will take time to enact new legislation, the administration should issue an overall Federal energy policy statement which would replace the numerous Executive orders and memorandums, and provide in one central document the conceptual framework and commitment for establishing a comprehensive energy conservation management program. In our previous reports, we have consistently emphasized the need for a strong, centrally managed and coordinated Federal energy program. However, current congressional and Presidential actions to implement such a program have been frustrated, in part by DOE's failure to actively assert and carry out its mandated leadership role in Federal energy management. Further, OMB and large energy-using agencies have not adequately supported such a program. For example, OMB and other agencies have resisted central review and approval of building retrofit projects by DOE as unnecessary even though our past work has shown otherwise. The issuance of a statement incorporating a sound framework for an aggressive program will help to resolve these problems.

To be effective in setting the stage for a strong program, this statement should clearly and precisely define DOE's responsibility and authority to develop such an overall effort and direct Federal agencies to support and comply with DOE initiatives. Further, the statement must clearly define the emphasis and priority agencies are to place on energy conservation efforts. It should precisely specify where energy conservation falls in relationship to other mandated programs and agency missions. For example, non-mission-oriented programs such as Equal Employment Opportunity and handicapped programs have been mandated for Federal agencies because an important need existed. In response, agencies have given some degree of priority to these programs and have achieved

positive results. Also, consideration should be given to whether certain elements of agency mission objectives can be modified for energy conservation.

This policy statement should direct DOE to develop and issue energy conservation plans and goals which are consistent with national priorities. In this regard DOE should be working actively with Federal agencies to assure conservation efforts are compatible and responsive to national needs. To provide reasonable assurance that plans and goals are established within a realistic time period, the administration should provide a target date for completion of plans and implementation of conservation efforts. Also, the statement must direct DOE to institute an energy monitoring system to measure and evaluate each agency's progress against established goals. If agencies failed to achieve goals or make sufficient progress, DOE would be required to report these failures to the President and appropriate congressional oversight committees. This will help insure that agencies take a more serious approach to energy conservation and encourage corrective actions when appropriate.

PROGRAM INITIATIVES

DOE should establish an office which has overall responsibility for FEMP. This office should be charged with developing a comprehensive Federal energy conservation plan and assuring that proper and adequate conservation actions are being taken both within DOE and other Federal agencies. This would assure that Federal conservation actions are coordinated and integrated with the Master plan. The office should report directly to the Under Secretary who, under section 202(b) of the DOE Organization Act (Public Law 95-91), is primarily responsible for energy conservation. Further, its efforts should include the development of the 10-year plan for improving the energy efficiency of Federal buildings and a strategy for linking the Solar in Federal Building Demonstration Program with other buildings conservation efforts.

To create a viable approach, DOE's program must fully embrace all aspects of conservation. For example, conservation in Federal buildings and facilities must adequately consider and weigh alternative capital investments such as conventional retrofit projects, solar projects, and cogeneration projects. This will assure that investment funds to save energy are optimized. The program should also be

capable of aggressively pursuing energy reductions through improved building operation and maintenance efforts. Energy conservation in Federal transportation and procurement are other important areas which the program should address.

To assure that progress in Federal energy conservation is proceeding at a satisfactory pace and in the right direction, FEMP needs more than just an annual Federal agency energy use data collection system. Agencies should be required to estimate annually energy targets by appropriate categories of energy use. These estimates should consider and be based on conservation actions to be implemented. Data should be collected so that reasons for variance in energy targets and use can be explained. A management information system of this nature would provide the program with useful and meaningful information feedback for guiding and redirecting efforts as needed.

CONSERVATION MEASURES

In the preceding sections of this chapter, we discussed some broad policy and program initiatives which are needed in order to have a strong energy conservation program. In addition, many specific conservation measures are available which, if implemented, would save energy and demonstrate that the Federal Government has made a serious commitment to energy conservation. Some conservation measures which we believe the Government can realistically pursue are discussed below.

Gas rationing or mileage restriction program

Recent petroleum shortfalls and long lines at service stations have focused increased national attention on gasoline rationing. While an emergency rationing program has been proposed for the private sector, no comparable measure has been developed for Federal agencies. By failing to establish even emergency plans for Federal agencies, the Government has apparently determined that all of its activities are more important than the collective activities of the Nation. Surely the Government has non-essential activities which could be curtailed. GSA has reported that total vehicle miles driven for 18 of the largest domestic fleets have increased by about 316 million miles since fiscal year 1974. We believe an emergency gas rationing plan is the minimum effort the Federal Government should make.

An ongoing program to ration gas or reduce mileage would directly address the Nation's number one energy problem--petroleum imports. The Government uses over 500 million gallons of gasoline annually. A rationing program to reduce gas consumption by 10 percent would save over 50 million gallons of gasoline annually.

Other transportation opportunities

Transportation is an area that has significant energy-saving potential. This area consumes about 55 percent of the energy used by the Federal Government. More important, virtually all the energy used in transportation comes directly from petroleum, the most critical of our energy resources.

We believe that there are a number of opportunities to reduce Federal energy use in this crucial area. For example, driver training programs hold great promise for reducing energy consumption. A private sector study showed that energy savings of about 20 percent can be achieved. Another area holding promise includes substituting bicycles or motor scooters for local deliveries instead of cars and trucks. Bicycles are successfully being used for such deliveries in San Francisco and at a California naval shipyard. Further, Federal agencies should be required to develop and maintain programs to encourage Federal employee carpooling and vanpooling.

More effective programs for improving building operations

One of the least expensive methods to save energy in buildings is by maintaining them in good condition and operating them efficiently. While buildings may be designed or retrofitted to be energy efficient, if they are not effectively maintained and operated, significant amounts of energy can be wasted. Our discussions with agency officials, review of building audits, and surveys of actual operating practices at specific buildings indicate that major energy savings are achievable by following sound building operations and maintenance practices. For example, USPS energy audits conducted at eight buildings showed that energy consumption could be reduced an average of 26 percent, largely through improved operations and maintenance. Although operating guidelines may be adequate, no assurance exists that these guidelines are being effectively implemented. During our evaluation, we found several examples of simple operating procedures not being followed, including

--outside doors blocked open at a GSA office building,

--leaking steam traps and defective outside air dampers at a GSA building,

--all boilers operating even though inside air temperatures exceeded GSA standards, and

--some USPS facilities where temperature levels of hot water and space conditioning exceeded requirements.

Building operations have been largely ignored by DOE in its planning efforts. For example, no guidance that could assist agencies in improving their buildings operation and maintenance practices is provided in DOE's most recent draft 10-year plan. In fact, the plan states that improvements can be made with a minimum amount of personnel training. It also states that most of the improvements have already been made throughout the Government. Further, DOE's recently promulgated guidelines for individual agencies' buildings plans state that each Federal agency shall provide in its plan for appropriate improvements in operations and maintenance. The guidelines, however, do not indicate how the agencies are to make these improvements. DOE's approach fails to provide any direction or assistance in what we believe are the key problem areas--training and controls. Although agencies offer some training and perform limited monitoring activities, these efforts are not sufficient.

We believe DOE should, in cooperation with the agencies, develop Government-wide training programs for building operating personnel. To insure that existing standards are being followed and buildings are operated efficiently, DOE should include in its 10-year plan a requirement for agencies to monitor and evaluate performance on a building-by-building basis. Finally, DOE through its regional offices should periodically evaluate agency implementation of these standards.

Cogeneration opportunities

Cogeneration, the simultaneous production of electricity and useful heat or steam, is a technology which could be used by the Federal Government to improve energy use efficiency in buildings and facilities. Between 1974 and 1978, various Federal agencies conducted 64 feasibility studies considering cogeneration systems which resulted in only 1 project being approved. We reviewed 32 of these feasibility studies and found that 16 concluded that cogeneration systems were

the least costly alternative. However, the cogeneration systems were not implemented because, in many cases, funds were not available or inclusion of cogeneration would have delayed construction and increased costs.

In our opinion, DOE is not adequately supporting cogeneration technology in the Federal sector. Cogeneration is not an active part of FEMP, and no Government-wide plans and criteria have been developed which indicate when and how cogeneration should be considered in Federal buildings and facilities.

Personnel awareness programs

An effective energy conservation program should include elements of employee awareness and rewards. While the Federal Government has produced and distributed some energy conservation information, no comprehensive program exists to encourage personnel to conserve energy.

There are various means of encouraging employees to conserve energy. For example, incentive award programs could be established for employees who operate a building at or below specified energy targets. Suggestion programs could be used to reward employees making effective energy conservation suggestions. Also, the Government could include as an element of its Federal personnel evaluation program energy conservation. A similar option has already been implemented for Equal Employment Opportunity programs.

Expanded internal audits of agency energy conservation programs

Internal audit and Inspector General staffs represent a readily available resource which could be used to perform comprehensive reviews of agency energy conservation efforts. Today, the Government employs thousands of professional auditors who continually review all aspects of Federal agencies' operations. By requiring these professionals to conduct periodic energy audits, the Government could realize significant energy savings. For example, DOD's Defense Contract Audit Agency, in response to our recommendations, 1/ significantly expanded the scope of its energy conservation audits

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1/"Federal Agencies Can Do More To Promote Energy Conservation By Government Contractors," EMD-77-62, Sept. 30, 1977.

of contractor facilities. In so doing, the Agency has reported potential savings of over 4 trillion Btus and $18.3 million. The USPS audit staff has also performed successful energy conservation audits.

We believe DOE's overall plan should emphasize the effectiveness of current audit efforts and expand them to other agencies. If necessary, DOE, in conjunction with agency audit groups, should develop training programs for internal audit staffs.

FUNDING CONTROLS

The Congress could enact legislation which would improve conservation efforts by modifying the existing funding process. Prior to fiscal year 1979 agencies were generally permitted to request and use funds for energy conservation retrofit projects as they determined appropriate. We found instances where funds requested by GSA for energy conservation were used for projects in other areas. We recommended that DOE seek legislation which provides that all such funds be appropriated to DOE or which requires agencies to identify and dedicate within their budget the specific funds to be used for energy conservation projects.

In November 1978, the Congress enacted the National Energy Conservation Policy Act (Public Law 95-619). This act, for the first time, requires each agency to conduct energy audits for identifying Federal building retrofit projects and to request budget funds for such projects on a line item basis. While we believe that line item budgeting called for in the new energy legislation will improve Federal conservation efforts, it will not prevent Federal agencies from using energy conservation funds for other needs. An agency could request funds in the name of energy conservation and thereafter, in the absence of some legislative restriction, reprogram the funds for other purposes. We believe that central project approval and funding through DOE would provide more assurance that energy conservation funds are being optimized and effectively used. Our work has shown that some of the most effective conservation projects have not been funded, and we have learned that DOD has also used energy conservation funds for other purposes. Under its Energy Conservation Investment Program, DOD has used about 20 percent, or $68 million, of the funds provided for this program for other purposes.

Additionally, the budgeting and funding processes could be modified to provide more effective monitoring and control over agency energy use. Currently, agencies develop their budgets around proposed programs, with little or no regard for the corresponding energy use. If agencies were required to segregate energy use and costs as a separate line item for both budgeting and funding purposes, this could provide more control. By doing this, programming techniques could be permitted to encourage energy conservation. For example, if an agency was able to reduce its estimated energy costs through an effective energy conservation program, the unused funds could be used for other purposes. Conversely, if the agency's energy costs were greater than the budget, the difference would have to come from other operating funds. By using these techniques, the administration could focus management's attention on energy use and its relationship to agency budgets and mission objectives.

PROCUREMENT STRATEGY

The Federal Government can improve its energy conservation efforts through procurement policies and strategies. The sheer volume of Federal procurement makes it an important process through which energy conservation can be effected. However, the Federal Government has not done enough to make energy consumption a consideration in the procurement process. In our reports, 1/ we found agencies were purchasing new and replacement equipment without considering energy-saving devices and agencies were not implementing procurement strategies which can help reduce energy use.

We believe that procurement techniques and strategies are not being effectively used to promote conservation as intended by legislation because the Office of Federal Procurement Policy (OFPP) has not provided Federal agencies with adequate guidance and direction. The President, by Executive Order 11912, delegated to OFPP the responsibility for carrying out section 381(a)(1) of the Energy Policy and Conservation Act which requires that:

> "The President shall, to the extent of his authority under other law, establish or coordinate Federal

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1/"More Use Should Be Made Of Energy-Saving Products In Federal Buildings," EMD-79-11, Jan. 23, 1979 and "Energy-Saving Strategies For Federal Procurement," EMD-79-68, dated June 19, 1979.

agency actions to develop mandatory standards with respect to energy conservation and energy efficiency to govern the procurement policies and decisions of the Federal Government and all Federal agencies, and shall take such steps as are necessary to cause such standards to be implemented."

In August 1976, OFPP issued Policy Letter 76-1 which

" * * * requested agencies to ensure that the principles of energy conservation and efficiency are applied in the procurement of property and services whenever the application of such principles would be meaningful and practical and consistent with agency programs and operational needs."

However, in reviewing the adequacy of OFPP's direction we found its guidance is too vague to ensure that Federal agencies sufficiently consider energy conservation in making purchases.

To expand procurement's role as a means of reducing Federal energy use, we have recommended that OFPP revise its policy statement to explicitly identify the types of procurement actions and strategies that can be used and require procuring agencies to develop and implement specific procurement procedures, guidelines and strategies. In addition, we recommended that OFPP actively follow up on agency actions to make certain that energy does indeed become a major consideration in the procurement process. In view of DOE's role in overall Federal energy management, we recommended that OFPP coordinate its energy related policies with DOE.

In responding to our reports, OFPP has taken the position that the policy requiring consideration of energy conservation and efficiency in the procurement process is simple, clear, and understandable, and that no revision to the policy, as stated in the OFPP policy letter and in the procurement regulations, is necessary. OFPP did note, however, that it was working with executive agencies to ensure that management is aware of the consideration to be afforded energy-saving products and of their responsibility with respect thereto. OFPP stated that our draft report reinforces the need for such emphasis.

While working with the executive agencies in emphasizing the need to consider energy in the procurement process may be useful, we still believe that strengthening of the OFPP policy letter needs to be done first. This action would provide the basis for OFPP to work more closely with executive agencies to develop uniform and consistent procurement procedures as envisioned by EPCA.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

Energy conservation is the Nation's most important option for reducing the likelihood of oil embargoes being used as a weapon against the United States. The President has described energy conservation as the cornerstone of his National Energy Plan and the Congress has mandated conservation as a national objective. Through an aggressive program, we believe, the Government could reduce its energy consumption by 15 to 30 percent. DOE, however, has chosen to develop the Federal Government's energy conservation program with the lightest touch humanly possible.

CONCLUSIONS

The Federal Government has not made a serious enough commitment to curbing its energy use and has failed to establish a comprehensive and aggressive energy management program. While the Federal agencies have made some progress in conserving energy, the Government has failed to fully and effectively exploit this opportunity. Rather, Federal energy conservation efforts have been carried out by individual agencies on a fragmented and piecemeal basis. Consequently, conservation efforts in many ways have not been exemplary. We believe the absence of a viable and enterprising Government conservation program stems largely from DOE's failure to assume an active leadership role in fulfilling its mandated responsibility. This is evidenced by DOE's lack of commitment to the FEMP and its failure to develop adequate plans and guidance for reducing energy use as required by legislative and executive mandates. We believe the lack of administration commitment and support for a strong program coupled with Federal agency resistance to DOE's influence over their programs have also contributed significantly to the inadequacy of the Federal conservation effort.

In previous reports we have consistently recommended a strong Federal energy conservation program, including central funding control, and suggested specific ways to improve conservation efforts. Despite the importance of energy conservation DOE has not made a serious effort to strengthen the FEMP. Nor has OFPP been receptive to our recommendations on ways to use procurement strategies as a means to save energy. In our opinion, this clearly indicates that the Government's

approach to curbing energy use is superficial and inconsistent with the President's National Energy Plan.

The Federal Government needs a new and serious approach to curbing its energy use. Although present legislation provides direction for a comprehensive and aggressive Federal energy conservation program, the Congress needs to enact legislation which will revitalize and provide for such a program. We believe this new approach should be aggressive and embrace all aspects of Federal energy conservation. The efforts to conserve energy in Federal buildings should fully integrate solar and cogeneration technologies with conventional building conservation measures. While original conservation gains were relatively simple to achieve, further energy reductions will require a more sophisticated and intensive energy management program. The program should integrate available conservation options into a comprehensive strategy for planning, implementing, monitoring, and evaluating a long-term conservation program. DOE, however, has not developed the program necessary for such a sophisticated undertaking.

DOE has responsibility for the Nation's energy program and should be playing an active role with respect to Federal energy conservation efforts. We believe DOE should be interacting with Federal agencies to assure their efforts are coordinated, properly prioritized, and consistent with national objectives. Further, DOE should actively monitor and evaluate agency efforts to assure that the program is being implemented and sufficient progress is being achieved. We believe this type of effort would be more consistent with the strong role Congress intended for DOE, rather than the observer role now being played by the Department.

RECOMMENDATIONS TO THE CONGRESS

Considering the urgent need to establish an aggressive and comprehensive Federal energy program, the Congress needs to recognize that the Federal Government is not fulfilling its energy conservation responsibilities. Specifically, we recommend that the Congress without delay enact new legislation which expresses the priority and emphasis which needs to be placed on the issue of energy use and management in the Federal sector and consolidates various existing laws. The legislation should:

--Require the President to develop and implement through DOE an aggressive and comprehensive FEMP and clearly define the roles, authority, and responsibilities that

DOE and other executive branch agencies are to fulfill in the program.

--Require under FEMP's purview the development and implementation of specific plans and programs which include:

1. EPCA, NECPA, and Executive order requirements.

2. Transportation energy conservation initiatives such as gas rationing or mileage restriction, driver training, vehicle substitution, and employee car pooling and vanpooling programs.

3. Energy conservation training programs for building operating personnel and monitoring programs to ensure buildings and facilities are being efficiently operated.

4. Integration of solar and cogeneration technologies into the plans and programs.

5. Energy awareness programs for Federal employees which will emphasize their role in energy conservation efforts.

6. Energy conservation awards programs such as incentive awards to personnel who operate a building at or below a specific budget, and special awards for conservation-related suggestions.

7. Periodic energy conservation audits of agency operations similar to those now being done by the Defense Contract Audit Agency and the Postal Service.

8. Program monitoring and evaluation plans for assessing the effectiveness of FEMP's development.

--Require the President to complete action on the above items within 18 months after legislation is enacted and submit 6-month progress reports to the Congress following the date of the legislation. The President should also be required to submit reports each fiscal year to the Congress on the overall implementation and effectiveness of FEMP and include suggestions or recommendations for congressional consideration to strengthen and improve the program.

--Provide to DOE central funding and control over energy conservation funds, and earmark and restrict all funds provided for energy conservation so they cannot be used for other purposes.

RECOMMENDATIONS TO THE PRESIDENT

Because of the national importance of energy conservation and the need to immediately establish an aggressive Federal program, we recommend that the President not wait for congressional actions specified in this report and use his existing Presidential authority to develop and issue a new Executive order which incorporates a Federal energy management policy statement and provides for an aggressive and comprehensive FEMP. The order should as a mininum:

--Define clearly the emphasis and priority Federal agencies are to place on conservation efforts.

--Reaffirm DOE's responsibility for FEMP.

--Specify clearly and precisely what DOE's and other agencies' roles, authority, and responsibilities will be in developing, implementing, and managing FEMP.

--Provide for aggressive action to fulfill the mandated requirements of EPCA, NECPA, and prior Executive orders.

--Require OFPP to develop more specific procurement strategies, guidelines, and procedures for considering energy use in Federal purchases and coordinate this effort with DOE.

--Require annual reports from the Secretary of Energy on the status and progress of FEMP.

Upon enactment of new legislation by the Congress, the President should revise the Executive order as appropriate for legislative compliance.

RECOMMENDATIONS TO THE SECRETARY OF ENERGY

We recommend that the Secretary of Energy assist the President in the effort to establish an aggressive and comprehensive program by immediately taking the following actions:

--Establish within DOE a high-ranking office reporting directly to the Under Secretary which will be solely responsible for FEMP.

--Assign to this new office broad responsibility for all aspects of Federal sector energy conservation plans and programs currently assigned to the Department including the integration of solar and cogeneration applications with buildings conservation plans.

--Provide adequate funding and personnel resources to the new office.

--Direct appropriate DOE officials to implement expeditiously adequate energy conservation plans and guidelines as intended under energy legislation and Executive orders. Buildings plans should thoroughly address such areas as leased space, and building operations and maintenance.

--Direct that the new office develop and submit for his approval a management plan for carrying out its assigned responsibilities and, subsequent to his approval, monthly reports on the status and progress of carrying out the plan.

AGENCY COMMENTS

This report was provided for formal comment on August 8, 1979, to DOE, DOD, OMB, GSA, and the White House Staff. Despite our efforts to expedite comments, none of the executive agencies formally responded within the 30-day comment period provided. OMB, GSA, and DOD comments along with our responses are included in appendixes II, III, and IV, respectively. Comments from the Department of Energy and the White House Staff were not received.

OMB disagrees with our view of the Federal Government's program to conserve energy and indicates that a decentralized management approach to Federal energy conservation is preferable. We do not concur with OMB's position and believe that unless the Federal Government establishes a more centralized approach it will not be possible to effectively manage and control energy use. Moreover, we find OMB's position most unusual for an agency with basic responsibility for assuring

that Federal funds are well spent and programs well managed. Both the Congress and the President have mandated that the Federal Government be the Nation's leader in energy conservation. In our work we have found that DOE has established only a token Federal Energy Management Program and that energy conservation plans required years ago have not been developed and implemented. While we recognize that there are some excellent examples of energy conservation by individual agencies, overall, we have found serious problems with Federal efforts. Unless the Government moves to a more centralized approach, there will be no assurance that energy conservation funds are allocated in the most efficient manner and the most effective conservation projects or actions are funded or taken. Further, it will not be possible to effectively eliminate duplication of efforts in areas such as testing energy conservation products as pointed out on page 10.

GSA said it was not opposed to DOE's central leadership and coordination but indicated that the report misleads the reader to conclude that Federal agencies are not practicing energy conservation. We disagree with GSA's view that the report misleads the reader. On pages 3 and 27 we recognize that Federal agencies have made some progress and cite specific examples throughout the report. However, our report points out and the record is clear that the Government has not established a comprehensive and aggressive Federal energy management program including the development of required energy conservation plans. Further, we have found that agencies have used energy conservation funds for other purposes and there are many areas where energy conservation can be more effectively and aggressively pursued. We do not believe that the report implies Federal agencies are not practicing energy conservation. Rather, the report points out that, in total, Federal efforts to conserve energy are not sufficient

DOD, similarly to OMB, said it disagrees that DOE should "manage" the Federal Government's conservation program. While agreeing there are some activities which seem appropriate for DOE, DOD stated that each Federal agency should manage its own program with the President holding his cabinet accountable. As noted in our response to OMB above, we believe the Federal Government needs a more comprehensive approach to Federal energy conservation. Further, we do not believe DOD's suggested approach is realistic or consistent with energy conservation legislation and the creation of DOE. In our view, an active DOE role in overseeing Federal conservation efforts would provide the President with an independent review and appraisal of the Government's progress.

LISTING AND SUMMARY OF GAO REPORTS ON ENERGY CONSERVATION IN THE FEDERAL SECTOR

1. "The Solar In Federal Buildings Demonstration Program" (EMD-79-84, Aug. 10, 1979).

This program was proposed in the National Energy Plan as a major initiative to demonstrate the Federal Government's leadership in promoting energy conservation and the use of renewable resources in its own buildings. However, because the Department of Energy has not developed a comprehensive strategy or assumed its mandated leadership responsibilities, this new program is being carried out in isolation from other conservation and solar efforts for Federal buildings. Further, DOE does not appear to be giving the program the support necessary to achieve its ambitious objectives.

This report includes recommendations for DOE to

--develop a comprehensive strategy and plan for guiding and integrating conservation and solar efforts for Federal buildings and

--implement a Federal buildings solar program on the scale envisioned by the National Energy Plan and the Congress.

2. "Energy-Saving Strategies For Federal Procurement" (EMD-79-68, June 19, 1979).

This report discusses what Federal agencies have done to develop and implement procurement techniques which result in reduced energy consumption.

The Office of Federal Procurement Policy has issued a policy letter calling for the application of energy conservation and efficiency principles in the Federal procurement of goods and services. Federal agencies were to establish specific procedures for implementing this policy. In response, DOD and GSA have added a general policy statement to their procurement regulations. Federal procuring agencies, however, have not developed specific procedures for considering energy in the procurement process.

This report identifies a number of potential procurement practices for reducing energy use and suggests what OFPP could do to ensure that some of these practices are implemented.

3. "Evaluation Of DOE's Activities To Develop Mandatory Lighting And Thermal Efficiency Standards For Federal Buildings" (EMD-79-32, Mar. 8, 1979).

We evaluated the Department of Energy's activities to develop mandatory lighting and thermal efficiency standards for Federal buildings. Such standards are to be developed by DOE as part of the 10-year plan for energy conservation in Federal buildings called for in section 381 of the Energy Policy and Conservation Act.

We found that mandatory lighting and thermal efficiency standards have not been established. We concluded the that DOE needs to promptly address certain issues concerning the establishment of such standards before an aggressive energy conservation program for Federal buildings can be pursued.

4. "Transportation Energy Conservation In The Federal Government" (EMD-79-3, Jan. 25, 1979).

This report discusses DOE's efforts through the Federal Energy Management Program to develop and promote a transportation energy conservation program in the Federal Government.

While significant reductions have been reported in the Federal Government's use of energy since fiscal year 1973, DOE has not provided the leadership necessary for a strong, structured transportation energy conservation program. The reported reductions, to a great extent, are the result of operational changes and not the result of conservation activities. This report recommends, and provides some suggestions for, a stronger, more structured transportation energy conservation program.

5. "More Use Should Be Made Of Energy-Saving Products In Federal Buildings" (EMD-79-11, Jan. 23, 1979).

Many products are available from commercial sources which, when installed in buildings and facilities, can save significant amounts of energy. While Federal agencies are presently using some of these energy-saving devices, they could expand that use and profit accordingly.

This report identifies factors impeding the use of energy-saving products by Federal agencies and discusses several ways in which DOE could improve its management of the Federal energy conservation effort.

6. "Improvements Needed In Department of Defense Energy Conservation Investment Program" (EMD-78-15, Jan. 18, 1978).

The Energy Conservation Investment Program afforded DOD, the Government's largest energy user, an excellent opportunity to make its existing buildings more energy efficient.

However, the program as conceived and currently structured does not insure that its primary objective of conserving DOD's energy resources will be achieved in the most efficient, effective, and economical manner because:

--The program structure excludes some facilities that are large energy users.

--The program criteria does not require proper economic analyses for evaluating and selecting projects.

--Program directors have not established adequate guidelines and controls to identify energy saving projects on the basis of consistent and reliable data.

7. "Evaluation Of The Plan To Conserve Energy In Federal Buildings Through Retrofit Programs" (EMD-78-2, Dec. 22, 1977).

Buildings consume about 39 percent of the total energy used by the Federal Government. Energy conservation in these facilities, therefore, is essential in any program to reduce the Government's energy use.

DOE has developed a comprehensive plan to reduce energy use in existing Federal buildings through retrofit programs. However, several areas should be further developed before it is submitted to the President for for final approval, including:

--Better procedures and criteria for evaluating, selecting, and approving retrofit projects.

--Improved funding mechanisms for energy conservation retrofit projects.

--Improved procedures for evaluating Energy Management Systems.

--Better marketing and use of the retrofit handbook.

8. "Evaluation Of The Plan To Conserve Energy In Federal Buildings Through Retrofit Programs" (EMD-78-89, July 20, 1978).

In this report, we evaluated the comments DOE provided to the House Committee on Government Operations and the Senate Committee on Governmental Affairs on our first report on "Evaluation Of The Plan To Conserve Energy In Federal Buildings Through Retrofit Programs" (EMD-78-2, Dec. 22, 1977).

We concluded that the comments were generally not responsive to the matters discussed in the report. We expressed our concern that the development of the 10-year plan for energy conservation in Federal buildings, as required by the Energy Policy and Conservation Act (Public Law 94-163), is not being aggressively pursued.

9. "Federal Agencies Can Do More To Promote Energy Conservation By Government Contractors" (EMD-77-62, Sept. 30, 1977).

Although the Federal Government has been promoting energy conservation since late 1973 and several agencies have programs that deal with industrial energy conservation, these programs and actions have had little effect at Government contractors' plants.

All contractors had taken some conservation actions at the facilities reviewed. Very few, however, had viable energy management programs.

Contractors can do more to save energy. The potential for achieving additional reductions in energy use is more than 20 percent in some plants.

Because of possibly high energy savings, the Government must work effectively as a unit to foster and promote energy conservation.

10. "Energy Conservation At Government Field Installations--Progress And Problems" (LCD-76-229, Aug. 19, 1976).

We visited 77 Government installations to determine how effectively they were undertaking the Federal energy reduction program.

Generally, installations have been active in efforts to reduce energy consumption. However, much more can and should be done to save energy through improved program management, more internal reviews, better energy-use information systems, stricter compliance with Federal standards and regulations, and modifications to existing facilities.

EXECUTIVE OFFICE OF THE PRESIDENT
OFFICE OF MANAGEMENT AND BUDGET
WASHINGTON, D.C. 20503

SEP 25 1979

Mr. Allen R. Voss
Director, General Government Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Voss:

Thank you for your letter of August 8, enclosing for our review and comment the General Accounting Office draft report entitled "Energy Use in the Federal Government--A Perspective for Leadership."

We disagree with the characterization that the Federal Government's program to conserve energy is in "disarray." Active energy conservation programs exist in the major energy consuming agencies, and substantial budget resources have been allocated to retrofit Federal buildings with energy conservation measures. The President's Budget for FY 1980 included a total of $234 million for such retrofits in the six major agencies that account for 92 percent of total Federal building energy consumption. Including FY 1980, cumulative resources authorized and requested for such retrofits total over $900 million. The Administration plans to continue this massive effort and expand it to include energy conservation in agency general operations as well as in buildings.

GAO Response:

In light of legislative and Executive order requirements, we believe our report presents a fair perspective of the Federal Government's program to conserve energy. The Congress and the President have both mandated that energy conservation is of national importance and that the Government should be leading the way. However, the Federal Government has not fulfilled this responsibility. As pointed out in chapter 2, Government-wide plans for conserving energy, which were mandated 4 years ago, have not been developed. While we recognize that there are some excellent examples of energy conservation by individual agencies, overall we have found serious problems with Federal efforts.

For example, as pointed out on pages 21 and 22, energy is being wasted in the operation of Federal buildings and we have seen Federal consumption of gasoline increase 18 percent between 1974 and 1977. We note that OMB in its comments focuses only on building retrofit programs and does not cite energy conservation potential in other areas such as transportation.

In disputing our characterization of the Federal program, OMB indicates that significant resources have been authorized and requested for buildings energy conservation retrofit measures and that the Administration plans to continue the massive effort and to expand it to include agency general operations as well. We have found, however, as pointed out on page 24, that some of the most effective conservation projects have not been funded, and that DOD has used under its Energy Conservation Investment Program 20 percent, or $68 million, of the funds provided for this program for other purposes. In addition, funds requested by GSA for energy conservation were used for projects in other areas.

We believe that central project approval and funding would provide more assurance that energy conservation funds are being optimized and effectively used. Further, we believe the fact that the energy conservation efforts have not already been expanded to include agency general operations only serves to support our point that the overall direction of Federal conservation efforts has been lacking.

Agency comment:

The central difference in views between GAO and the Executive Branch would appear to be the extent of centralization or decentralization in the management of this effort. The Executive Branch has long favored some degree of decentralized management since each agency is most familiar with its own buildings and operations and can best decide how to meet the President's energy conservation objectives. This approach can achieve, in our view, the most rapid results while minimizing the possible negative impacts on the accomplishment of agency missions. Considering that there are over 400,000 Federal buildings, 650,000 Federal vehicles, and highly diversified operations throughout the numerous agencies and programs of the Federal Government, we believe it inappropriate to suggest that "DOE should develop a program that will embrace, under one roof, all Federal energy conservation efforts."

The Administration has made the head of each major energy-consuming agency responsible for conserving energy when carrying out agency activities. Such an approach is appropriate since much agency energy use depends directly upon agency activities controllable by agency management. The Department of Energy (DOE), on the other hand, is not in a position to make sound judgments about the worthiness of activities carried out by other agencies. DOE, for example, cannot reasonably dictate to the Department of Defense the appropriate number of aircraft flying hours--which is a major factor influencing total Federal oil use--since many factors beyond DOE's purview and understanding are important when deciding the extent and nature of military aircraft use.

DOE can and should actively monitor Federal Government energy consumption trends and conservation opportunities and assist agencies needing help in developing retrofit and other energy conservation programs. Toward this end, DOE is nearing publication of new guidelines for agency energy management in both buildings and general operations. Therefore, we do not believe any new legislation or Executive orders are necessary at this time in order for DOE and the other Federal agencies to continue to implement their energy management programs.

GAO Response:

We disagree with OMB's position on decentralization and believe the Federal Government needs a more centralized approach to fulfill its national leadership role in energy conservation as mandated by the Congress and the President. Without an approach which is comprehensive and aggressive, it will not be possible to effectively manage and control energy use. For example, it will not be possible to eliminate duplication of efforts in testing energy conservation products and assure that the most effective projects are undertaken and important conservation opportunities are not missed. OMB states that the President's Budget for fiscal year 1980 includes $234 million for retrofitting buildings in six agencies. However, because the Government has no central approach or comprehensive program, there is no assurance that the funds will be used for the most effective projects, for energy conservation or even focus on reducing petroleum consumption.

OMB states that the Executive Branch has long favored some degree of decentralized management. We believe this comment is misleading because it implies that there is centralization and that any

further movement in this direction could impair accomplishment of agency missions. With respect to Federal energy conservation, management is for all practical purposes completely decentralized as evidenced by the lack of resources, status, and influence of DOE's Federal Energy Management Program.

OMB states that DOE is not in a position to make sound judgments about the worthiness of activities carried out by other agencies. On this latter point, we agree that DOE should not judge the worthiness of agency activities or, for example, dictate to the Department of Defense the number of hours its aircraft should fly. And, we do not indicate in our report that DOE should have this authority. We do believe, however, that DOE should monitor the agencies' mission-related energy use and work closely with the agencies to assist them in improving their overall energy-use efficiency. Improvements suggested by DOE and not given due consideration by the affected agencies could be reported to the Congress and the President by DOE in its annual reports.

DOE has, as one of its missions, the responsibility and obligation for insuring that the Federal Government's approach to curbing its energy use is exemplary. OMB's comments ignore this point and seem to indicate that an active management role by DOE would have a negative impact on agency missions. We strongly disagree with this view. We find it difficult to believe, in most cases, that DOE's direction of Federal energy conservation efforts could hinder an agency in accomplishing its mission. For example, DOE central funding of an energy conservation retrofit program for buildings could not possibly affect agency missions. Nor, realistically, would DOE insistence upon agency participation in energy conservation driver training programs affect agency missions.

We believe it is not proper to assume that DOE's role would conflict with agency missions. Rather, this role should be viewed as complementary and supportive, leading to more effective mission

accomplishment. We recognize it is only natural for Federal agencies to oppose DOE's involvement in their activities. However, we believe it is inappropriate to deny DOE its mandated responsibility and authority to carry out its mission. The Government's failure to move to a more centralized effort, and the continuation of a token DOE Federal Energy Management Program, will only further serve to undermine the seriousness of the energy problems facing the Nation.

Agency comment:

We appreciate this opportunity to comment on the draft report and hope that you will share our view that the vast size and diversity of the Executive Branch requires a substantial degree of decentralized management of the Federal energy conservation effort.

Sincerely,

Executive Associate
Director for Budget

APPENDIX III

UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION
WASHINGTON, DC 20405

SEP 24 1979

Honorable Elmer B. Staats
Comptroller General of the United States
General Accounting Office
Washington, DC 20548

Dear Mr. Staats:

Thank you for the opportunity to comment on your draft report on the Energy Use in Federal Government -- A Perspective for Leadership.

The General Services Administration's comments on the report are fully discussed in the attached fact sheet.

We will be glad to submit any further information you may require concerning the comments.

Sincerely,

R. G. FREEMAN III
Administrator

Enclosure

APPENDIX III

GSA FACT SHEET
Public Buildings Service
August 29, 1979

COMMENTS ON DRAFT REPORT
"ENERGY USE IN THE FEDERAL GOVERNMENT -- A PERSPECTIVE FOR LEADERSHIP" (EMD-79-86)

The report uses a number of pejorative words that mislead a reader about the energy conservation efforts of Federal agencies. Using "Federal Government" synonymous with "DOE," conditions the reader to conclude that Federal agencies are not practicing energy conservation. Words like "disarray, fragmented, a precious product, a plentiful resource" are overstatements that imply a very unfavorable position, particularly when DOE and Federal Government are used interchangeably. The study states, "The Federal Government needs a totally new and serious approach to curbing its energy use." This statement fails to recognize the many ongoing energy programs in DOD, NASA, GSA, ERDA, DOI, DOC, VA and the Postal Service and implies their efforts are insincere. The energy initiatives of the various agencies are diverse and in most cases effective.

GAO Response:

We do not believe our report misleads the reader regarding the Federal energy conservation effort or implies that agency efforts are insincere. Our report on pages 3 and 27 recognizes that the Federal Government has made some progress and cites positive individual agency examples throughout the report. For example, on page 8 of the report we note that "GSA requires non uniform lighting and specific energy-conserving heating and cooling requirements, and considers energy use as an award factor for any lease over 30,000 gross square feet." Other similar individual examples are cited throughout the report. While the report points out a number of unfavorable examples and numerous areas needing improvement, we believe, in view of congressional and

presidential mandates, the Government has not fulfilled its leadership role with respect to energy conservation.

To establish a leadership position the Government must have a comprehensive and unified energy conservation program which is aggressive. While positive individual agency examples in energy conservation are to be commended, a Government-wide commitment which aggressively pursues energy conservation is needed. The Government should not present the appearance that it is not 100 percent committed to energy conservation if the public is to be expected to aggressively pursue energy conservation. To follow past practices and not establish a meaningful Federal Energy Management Program, will only continue to foster distrust of Government policy.

Agency comment:

Many energy actions of various agencies are regularly published in the Building Research and Advisory Board (BRAB) of the National Academy of Science and issued to key energy and technical personnel in the Federal agencies for interagency coordination. In view of the significant gains made by the major energy consuming Federal agencies since 1973, it is unrealistic to expect a quick 30 percent additional reduction. The stated 10 year goal of 20 percent reduction in Executive Order 12003 will be extremely difficult to meet, but is considered achievable.

GAO Response:

Our report does not state or imply that the Government could achieve "a quick 30 percent additional reduction." Rather, the report shows that through an aggressive program, we believe the Government could reduce its energy consumption 15 to 30 percent. In chapter 3, we outline the actions the Government should take to achieve such results. On page 16, we point out that "Actions that should be taken to establish a comprehensive program for planning, implementing, monitoring, and evaluating a long-term conservation effort include an array of legislative, policy, and program initiatives; conservation measures; funding controls;

APPENDIX III

and procurement strategies to assure the Government receives the most benefits for its investment." While it is commonly recognized that some energy reductions can be quickly achieved through improved building operations, it is obvious that energy reductions through more complex measures such as solar and cogeneration technologies will take more time.

Agency comment:

GSA is not opposed to the central leadership and coordination by DOE. We are opposed to the tendency to establish unnecessary rules, regulations, overreporting and bureaucratic controls that may slow down the progress made by agencies. GSA is totally opposed to the inevitable delay that would occur from DOE reviewing and approving each energy retrofit project.

GAO Response:

We recognize that establishment of a comprehensive and aggressive Federal Energy Management Program with DOE central leadership and coordination would result in more administrative review and approval. However, we believe if properly managed, this burden need not be excessive and the benefits would far exceed any costs. For example, an effective management program would assure energy conservation funds are allocated to the most attractive projects and eliminate needless duplication in testing energy conservation devices as pointed out on page 10 of this report. We do not believe DOE's review and approval of retrofit projects would necessarily result in an inevitable delay. For example, it has a 5-year inventory of scheduled alteration and major repair work items including energy conservation retrofit projects. Since energy conservation projects are considered along with all types of work items,

central funding would actually remove them from the normal GSA review and scheduling process. This would eliminate energy projects from competition with other work items, and consequently expedite their implementation. In any event, central funding on a Government-wide basis would provide more assurance that energy conservation funds go to the most worthy projects.

Agency comment:

The GAO report does not identify the potential conflict whereby the Federal Supply Service and other Federal agencies are currently mandated by OMB Circular A-76 to purchase a greater percentage of common use items from the commercial market without using detailed Federal specifications. Unless the commercial sector is committed to producing energy efficient items for general use, the Federal Government will be forced back into procurement of common use items via detailed specifications in order to emphasize energy savings.

GAO Response:

We do not agree with this view. OMB Circular A-76 does not mandate Federal agencies to purchase a greater percentage of common use items from the commercial sector without using detailed Federal specifications. Rather the circular provides criteria for determining whether Federal agencies should operate an activity to provide a product or service, or obtain the product or service from the private sector.

Agency comment:

In keeping with the observations contained in the GAO report "Transportation Energy Conservation in Federal Government" (EMD 79-3), January 25, 1979, this report should recognize the contribution of the Acquisition of Fuel Efficient Vehicle Program to conserve gasoline by Federal executive agencies. This program was established by Section 510 of the Motor Vehicle Information and Cost Savings Act and was subsequently expanded by Executive Order 12003. The Federal Government is required to acquire (purchase or lease for 60 days or more) fuel efficient passenger vehicles and light trucks which must meet specified miles per gallon (MPG) targets based upon Environmental Protection Agency (EPA) MPG ratings. This program is the specific responsibility of GSA and has been very

successful for the entire Federal fleet. The following is the summarization of the results for passenger vehicles acquired since the program's inception in fiscal year 1977.

FISCAL YEAR	MPG REQUIREMENTS	MPG ACTUAL	NUMBER OF VEHICLES
1977	18	19.3	18,670
1978	20	21.0	15,294
1979	22	22.4*	16,792*

*Through August 3, 1979

This program has resulted in the Government's acquisition of virtually all compact and subcompact passenger vehicles. The majority (69.1 percent) of those being 4-cylinder sedans.

GAO Response:

While we do not specifically address GSA's procurement of more fuel efficient vehicles, we do note in chapter 2 some positive Government examples of energy conservation efforts in the transportation sector. Although positive examples of energy conservation can be found throughout the Government, we are very much concerned with the absence of a comprehensive and aggressive Federal Government conservation plan and program. Without such an effort, it will not be possible to effectively manage and control energy use, eliminate duplication of efforts in testing energy conservation products, and assure important conservation opportunities will not be missed. We believe the increase in Federal gasoline consumption of 18 percent between fiscal years 1974 and 1977 demonstrates this point.

Agency comment:

In the report, GAO recommends that a mileage reduction program should be established in order to reduce energy consumption (page 21). It should be noted that a fixed percentage mileage reduction will not necessarily result in a corresponding reduction of gasoline consumption. This is because the miles traveled by a subcompact sedan uses far less fuel than a heavy truck; yet each mile is treated equally. Recording and controlling the number of miles traveled by Government-owned vehicles, commercially leased and rented, privately owned, and Interagency Motor Pool System vehicles entails a significant administrative paperwork burden which should be recognized prior to implementation of such a recommendation.

GAO Response:

In our report we recommend that a gas rationing or a mileage restriction program be established.

We recognize that both options would have advantages and disadvantages and believe both should be studied before an option is selected. Regardless, implementation of either option should be thoroughly planned to minimize potential problems and excessive administrative work.

Agency comment:

The remark contained on page 20 that "... the Government has apparently determined that all of its activities are more important than the collective activities of the nation," does a real disservice to many of the activities being performed by Federal employees. The importance of these services such as mail delivery, mission readiness defense activities, law enforcement, mass transit, emergency service, meat inspections by the Department of Agriculture, safety inspection by the Occupational Safety and Health Administration and the Mine Enforcement Safety Administration have been recognized by the Economic Regulatory Administration of the Department of Energy. Increased allocation priorities to these activities, over that given to the normal commercial and industrial activities, certainly seems to be justified in these instances.

GAO Response:

We do not agree that this statement does a disservice to Federal activities. The statement contained in the report is in the context that the Government has not developed plans for emergency situations. In the event of severe energy supply constraints, the criteria for determining if activities are essential must change to reflect the limited energy resources available for carrying out activities in both the public and private sectors. The Government must have plans to curtail its activities which under the energy supply constraints are no longer considered to be essential. If the Government does not develop such plans, it will not be fulfilling its leadership role and will not be acting in a manner that is consistent with actions being avocated for the private sector.

We believe as a minimum, the Government must have gas rationing plans for its activities during a severe energy shortage. Federal activities need to be evaluated to determine if they should be temporarily discontinued or reduced. For example,

given a 20 to 30 percent cut in petroleum imports should the U.S. mail be delivered everyday. By establishing plans now, sound and reasonable decisions will be much easier to make during emergency conditions. Failure to do this could very well lead to wasting energy resources on non-essential Federal activities should emergency situations materialize.

GAO note: Page numbers of the draft report were changed to correspond with those in this final report.

ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, D.C. 20301

MANPOWER,
RESERVE AFFAIRS
AND LOGISTICS

17 OCT 1979

Mr. Dexter Peach
Director
Energy and Minerals Division
U.S. General Accounting Office
Washington, D.C. 20548

Dear Mr. Peach:

This is to provide Department of Defense (DoD) comments on the GAO draft report entitled "Energy Use in the Federal Government -- A Perspective for Leadership" (EMD 79-86) (OSD Case No. 5253). This is also to formalize comments which Department of Defense representatives made during a meeting with Michael Kline of your office on August 28, 1979.

The major thrust in the draft GAO report is that the federal government's program to conserve energy is in "disarray" and that efforts have been "fragmented and piecemeal, because the Department of Energy (DoE) has not taken an active leadership role." The report recommends that DoE "manage federal (energy) conservation efforts" with "one comprehensive umbrella type program". It further recommends expanding the Federal Energy Management Program Office in DoE to "consolidate" federal conservation programs, including "central funding and control over energy conservation funds".

The Department of Defense cannot judge energy conservation programs in other federal agencies, but within the DoD, there is a strong, coordinated, and aggressive program to meet the President's energy goals on or before 1985. Many installations are well ahead of the two percent per square foot per year reduction timeline. To date, $645 million has been programmed in the energy conservation investment program, and it is projected that as much as $1.5 billion will be earmarked by 1985. An energy management information system is in effect and provides commanders and headquarters activities with data to assure compliance with Presidential goals. Incentive programs are working and have resulted in innovative ideas which have saved substantial energy. Other initiatives are in the process of implementation. Since DoD consumes some 80 percent of the federal government's energy, the GAO report, as written, misrepresents both the magnitude and success of the federal government's energy conservation program. There is no lack of commitment to energy conservation within the DoD.

GAO Response:

We do not concur that our report misrepresents the success and magnitude of the Federal Government's energy conservation program. As pointed out in the report, despite legislative and executive direction, a comprehensive and aggressive Federal energy conservation management program has not been established by DOE. While we recognize that Federal agencies including DOD have made some progress in conserving energy, our work since 1976 has shown that much more can be done and should be done in view of the Federal Government's mandated leadership role. For example, as pointed out in chapter 3, cogeneration technology which will improve Federal energy use efficiency has hardly been pursued in Federal agencies. In addition, energy is being wasted in the operation of Federal buildings and Federal consumption of gasoline has been increasing significantly. In our opinion, examples such as these, demonstrate that much can be done to improve the Federal conservation program.

With respect to magnitude, DOD's comments address its Energy Conservation Investment Program which focuses only on existing buildings and facilities. However, nothing is specifically mentioned regarding conservation in the transportation sector which is an area of great potential. While DOD projects $1.5 billion will be earmarked for its program by 1985, it is interesting to note that this is less than two percent of its annual budget and, as pointed out on page 24 of this report, that $68 million for the program was reprogrammed for other purposes.

Agency comment:

The report states that "GAO believes the government could reduce its energy consumption by as much as 30 percent", and that if the government does not develop a program of greater "management guidance and control. . ., past conservation gains may be lost." The rationale for each of these assertions is missing. With current technology, the DoD cannot reduce energy use by 30 percent without a severe and dangerous degradation of combat readiness. Approximately two-thirds of DoD energy use is in mobility fuels. The GAO report does acknowledge that future energy reductions will undoubtedly require "intensive capital investments."

GAO Response:

In view of the actions needed and opportunities to save energy as discussed in chapter 3, we continue to believe there is significant room for improvement in Federal conservation efforts without impairing the mission of any agency. In our report we point out a number of measures for conserving energy which have not been aggressively pursued such as gas rationing or mileage restriction programs, driver training programs, and cogeneration projects. Further, the integration of solar technology with conservation can significantly aid in reducing energy consumption associated with fossil fuels. DOD, however, states that with current technology, it cannot reduce energy consumption by 30 percent without impairing combat readiness. We believe it is incumbent upon DOD, if it cannot achieve the goal of 15- to 30-percent reduction, to demonstrate in other than generalities what it can or cannot do in reducing energy consumption.

We state on page 16 of this report that the Government should set higher energy conservation goals for itself and that we believe the potential, with a thorough and aggressive program, is between 15 and 30 percent. Our opinion is based on our observations of already identified conservation potential in earlier work and estimates of potential from numerous studies that have been done for the Government and the private sector. To reach the high side of this range (i.e. 30 percent) would require a concerted and dedicated effort on the part of all Federal agencies and would go beyond using only current technology. We believe that, considering our current dependence on unstable oil supplies from the Middle East, the Federal Government should do no less.

Agency comment:

The case made in the GAO report against the effectiveness of federal energy conservation efforts rests in large part on the increase of energy consumption in 1977. While this may appear on the surface as irrefutable evidence of a profligate attitude, it fails to address several key elements in the energy equation. Virtually the entire federal government increase in 1977 was due to several previously scheduled, large scale military exercises which used mobility fuel in an amount greater than in 1976. The 1977 mobility consumption was well below the 1975 baseline and was, therefore, within the DoD mobility fuels zero growth target between FY 1975 and FY 1985. Use of energy in 1977 for DoD buildings and facilities decreased slightly in 1977 in spite of the extremely

severe cold weather of 1977 which required heating energy far exceeding the average winter. Without conservation measures, installation energy usage would have been undoubtedly much larger. Therefore, energy efficiency was actually improved. The true measure of energy conservation may be found in examining energy efficiency data such as energy use per degree day in buildings and energy use per flight hour in aviation.

GAO Response:

We do not concur that our assessment of the Federal Government's program to conserve energy rests largely on the increase of energy consumption in 1977. As pointed out on page 4 of the report, our conclusions regarding the adequacy of the Federal energy conservation program are not based primarily on energy use statistics, but on our analysis of the elements comprising a comprehensive and aggressive program. While increases in Federal energy consumption occurred in fiscal years 1975 and 1977, what is more disturbing is the complete absence of any Government-wide comprehensive and aggressive program to conserve energy. We have found, despite legislative and executive guidance to the contrary, as pointed out in chapters 2 and 3 of the report, that Federal energy conservation plans have not been developed, the Department of Energy's Federal Energy Management Program is weak, and opportunities to improve energy conservation are not being aggressively pursued.

DOD singles out the Government's 1977 increase in energy consumption and attributes the increase to several planned large military exercises. However, we believe that this is misleading because it assumes fuel consumption for military exercises should remain the same from year to year and that 1977 was an unusual year. We note, on the other hand, DOD does not point out that signficant energy reductions reported in earlier years resulted in part from reduced operations such as those associated with cessation of operations in Vietnam. We believe the failure to highlight both types of changes is inconsistent and implies that previous energy savings due to operational reductions were actually the result of conservation actions.

In any event, to properly determine the reasons for an increase or decrease in overall Federal energy consumption, it is essential to determine through analysis the "net effect" of all operational changes on energy use.

DOD, however, did not provide us with any data or analysis to support its contention, and DOE's data information system does not provide the basis for this analysis. Consequently, any analysis of Federal energy consumption data is limited to trends. We point out on page 20 of our report that to assure that progress in Federal energy conservation is proceeding at a satisfactory pace and in the right direction more than just an annual Federal agency energy use data collection system is needed.

Agency comment:

The DoD disagrees strongly that DoE should "manage" the entire federal government's energy conservation program. Each federal agency should manage its own program, with the President holding his cabinet accountable to meet his goals. The DoE role which the report recommends will increase bureaucratic layering, with its attendant inefficiencies. No "payoff" in decreased energy use -- the bottom line -- is foreseen with such a system. In fact, there are well-known advantages in pursuing common goals on independent paths. Motivation and commitment are increased when the opportunity for innovation is diffused throughout a system.

There is surely a proper role for DoE in the federal energy conservation program. The following activities would seem appropriate:

GAO's Response:

The substance of this comment is similar to OMB's view that a decentralized management approach to Federal energy conservation is preferable. We do not concur with this view and believe that to effectively manage and control energy use the Federal Government must establish a more central approach.

Also, we do not believe DOD's suggested approach in this respect is realistic or consistent with energy conservation legislation and the creation of DOE. This approach ignores the basic purpose of creating DOE which is to bring together under one roof the previously diverse Federal energy-related functions and activities. DOE's role in actively overseeing Federal conservation efforts would provide the President with an independent review and appraisal of the Government's progress.

DOD's comments regarding bureaucratic layering are similar to comments raised by GSA. As noted in our re-

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sponse to GSA on pages 46 and 47 we continue to believe that the benefits of a comprehensive and aggressive program would exceed the costs.

- Establishment of standards, i.e., how many btu's per degree day a well-constructed building would use;
- Interpretation of Presidential goals and directives, (e.g., gas rationing) after coordination with other departments;
- Dissemination of research and demonstration findings;
- Joint funding of attractive demonstration projects; and
- Recommended procedures to ensure energy standards are met in leased buildings.

The DoD recommends that the GAO report, "Energy Use in the Federal Government -- A Perspective for Leadership", be revised before it is issued. As is, it misrepresents the significant program of the primary federal energy consumer and proposes a solution that could increase activity without improving performance.

Sincerely,

Robert B. Pirie, Jr.
Assistant Secretary of Defense
(Manpower, Reserve Affairs & Logistics)

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