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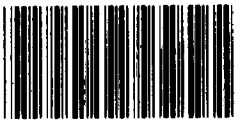
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STATEMENT OF
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DIRECTOR, ENERGY AND MINERALS DIVISION
BEFORE THE
SUBCOMMITTEE ON ENVIRONMENT, ENERGY
AND NATURAL RESOURCES
OF THE
HOUSE GOVERNMENT OPERATIONS COMMITTEE
ON
ENERGY CONSERVATION WITHIN THE FEDERAL GOVERNMENT:
THE DEPARTMENT OF ENERGY'S ROLE

Mr. Chairman and Members of the Subcommittee:

GAO welcomes the opportunity to be here today to discuss with you the results of our examinations of the Department of Energy's (DOE) efforts to manage Federal energy conservation. During the past two years, we have issued numerous reports in this area. A list of these reports is included as Attachment I and copies are being supplied for the record.

LACK OF A NATIONAL ENERGY CONSERVATION PROGRAM

Before discussing what DOE is doing to manage Federal energy conservation efforts, let me spend a few moments addressing the Nation's continuing reluctance to develop an effective energy conservation strategy. Our reliance on crude oil imports has increased substantially in recent years and could reach 12 or 13 million barrels per day by 1985.

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The Iranian oil situation, which once again jarred our complacency, is still only one of a series of events which underscores the importance of moving forward in the energy conservation area.

The world is likely to continue to experience periods of tight supply and upward pressure on prices in the next few years. The time is approaching when crude oil production capabilities will peak. While we now are faced with the need for quick actions to meet the problems created by the Iranian oil shortfall, we also must face up to the reality that we can not continue to rely on short-term crisis management in the energy area and that now is the time to get our energy conservation act together.

We believe a strong, coordinated national energy conservation program cannot only mitigate the adverse impacts of future Iranian-type situations, but more importantly it would reduce the likelihood of oil embargoes being used as a weapon against the United States. Further, a strong conservation program is also needed to allow an orderly transition to renewable resources. Our February 13, 1979, letter to the Chairmen of Energy-Related Committees and Subcommittees highlighted the following three overriding problems which, in our opinion, must be solved before the Nation will achieve any significant level of energy conservation:

--A lack of specific planning and direction from the Government in the energy conservation area. In our June 30, 1978 report (EMD-78-38), we concluded that the Federal Government had not developed an overall energy conservation strategy for the Nation. While DOE generally agreed with our position, no strategy has been forthcoming.

--The failure to develop, and have approved by the Congress, emergency energy conservation and gasoline rationing plans.

--The absence of an aggressive, coordinated effort by the Government to conserve energy in its own operations and facilities.

In view of the importance of energy conservation as part of the Nation's energy policy, let me discuss briefly the need for Federal conservation efforts.

THE NEED FOR FEDERAL ENERGY CONSERVATION

The Federal Government has a unique opportunity not only to conserve vast amounts of energy but to serve the Nation as an example by aggressively pursuing conservation throughout its many and varied operations. Today, the Government is the Nation's largest single energy user, accounting for over 2 percent of U.S. energy consumption. This represents

the equivalent of about 282 million barrels of oil worth almost $4 billion a year. This energy is used within the Federal sector by almost six million people, in more than 400,000 buildings, and in operating more than 650,000 vehicles of all types.

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.

To date, most Federal Government energy savings have been achieved through relatively simple measures such as reducing equipment operating hours, adjusting thermostats, turning off lights, and some actions to retrofit existing buildings to make them more energy efficient. DOE has reported that Federal energy use between 1973 and 1975 was reduced by over 26 percent. Since 1975, however, energy use reductions have not been so dramatic. In fact, 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 upward trend in energy use indicates to us that the Federal Government is not doing enough to conserve energy.

THE FEDERAL ENERGY CONSERVATION PROGRAM IS IN DISARRAY

We believe the Federal Government's efforts to conserve energy have not achieved their full potential largely because DOE has made an insufficient commitment to the Federal Energy Management Program. This program is the Government's response to its own need to manage and control energy use. DOE has failed to fulfill the planning requirements mandated by legislation and executive orders and has failed to fully embrace its role in Federal energy conservation, as envisioned by the Congress. This has resulted in a weak uncoordinated program lacking specific management direction.

While we have been reporting these problems for the last two years, DOE has taken no corrective action and, in fact, seems to be deemphasizing its role in the Federal Energy Management Program. This inaction was underscored on February 2, 1979, when the President 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. All these actions were required several years ago and, in our opinion, should have been accomplished long before now.

ENERGY CONSERVATION PLANS NEED TO BE DEVELOPED AND IMPLEMENTED

The means through which DOE can first exercise its leadership role in Federal conservation is the planning process. Although the basic framework for planning energy conservation has been established by both legislation and executive orders, DOE has not yet fulfilled its planning responsibilities.

The Energy Policy and Conservation Act (Public Law 94-163), dated December 22, 1975, requires the President to develop and implement a 10-year plan to reduce energy use in Federal buildings. This plan is to include mandatory lighting efficiency standards, mandatory thermal efficiency standards and insulation requirements, restrictions on hours of operation, thermostat controls, and other conditions of operation. 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. Further, Executive Order 12003 establishes energy reduction goals of 20 percent for existing buildings and 45 percent for new buildings. Each of these legislative and executive actions clearly implies strong management and policy direction with respect to energy conservation in Federal buildings and facilities. As of today, however,

over three years since the law was passed, the Federal Government has no approved 10-year plan for its buildings and facilities.

In addition to the requirements for a 10-year plan for buildings and facilities, 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 all operations of the agency. Each agency is also required to annually report 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 have reported 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. Further, DOE has not assisted agencies in establishing individual agency conservation

goals. As a result, no Federal agency has formally submitted a conservation plan to DOE even though it is required by the Executive Order. In the absence of these plans DOE cannot measure the progress being made.

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 the U.S. Postal Service has evaluated and is using electric vehicles. The agencies, however, are operating independently of one another. Even within DOE, demonstrations of energy conservation measures have not been integrated with the overall Federal Energy Management Program. The result is a fragmented Federal Government energy conservation approach with needless duplication of effort among agencies. For example, we reported that duplicate testing has occurred because no single agency is responsible for coordinating evaluations of energy conserving devices. We found that one device for increasing the efficiency of some air conditioners had been separately evaluated and found effective by GSA, the Air Force, and the Navy. DOE declined to accept responsibility for coordinating evaluations of energy saving products.

Additionally, prior to FY 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 that requires agencies to identify and dedicate within their budgets the specific funds to be used for energy conservation projects.

In November 1978, Congress enacted the National Energy Conservation Policy Act (Public Law 95-169). 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 is beneficial, it will not guarantee that funds requested for energy conservation projects will be restricted for such use. An agency could request funds in the name of energy conservation and thereafter, in the absence of some legislative restriction, such as a line item in an appropriation act, 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 recently 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.

We believe these as well as other problems we have identified demonstrate the need for a comprehensive energy management program. To establish the most effective program possible, DOE needs to develop a strategic approach for managing long-term energy conservation efforts. This includes not only developing and issuing an appropriate plan, but also insuring that agencies implement the plan and then closely monitoring and evaluating progress to insure that the objectives and goals are being achieved in a timely manner.

DOE NEEDS TO FULFILL ITS PROGRAM MANAGEMENT AND LEADERSHIP RESPONSIBILITIES

We are concerned about the lack of direction and overall management effort that DOE is giving to the Federal conservation program. In this regard, DOE is apparently confused over the role it is to play in Federal conservation efforts. This role should be clear, since one reason for establishing DOE, as stated in the DOE Organization Act (Public Law 95-91),

was to achieve effective management of Federal energy functions including coordinating energy policies and promoting energy conservation measures.

In spite of such legislation, the Department has consistently refused to undertake the role of leader and manager for Federal energy conservation efforts. DOE stated this position in commenting on one of our recent reports. We recommended that DOE coordinate the evaluation of energy saving devices, establish demonstration projects using those devices in Federal buildings, and publicize the results of such projects. While some DOE program staff thought demonstration projects would be good, DOE's official response to our report was that representatives of OMB and certain DOE management officials have taken the position that DOE should have no role in 'coordinating' or 'managing' agency energy conservation efforts. DOE noted that this position was obviously inconsistent with our perception of its role as a strong central manager of Federal energy conservation activities and stated that until this issue is settled, it could not positively respond to our recommendations. We believe that if DOE's position is inconsistent with our perception of its role, then its position is also inconsistent with the law.

We believe one reason that the Federal Energy Management Program has lacked overall direction is that DOE has not provided adequate organizational emphasis and funding for the program. Initially, the program was established to manage the Government's overall energy conservation program. Under DOE, however, the program has not been accorded an organizational status which enables it to do much more than collect, compile, and report on Federal energy consumption data.

When we criticized DOE's lack of emphasis of the Federal Energy Management Program, DOE replied that it was meticulously examining its programs and activities and that this would result in the proper organizational structure and staffing levels for accomplishment of assigned responsibilities. We noted that this examination resulted in a 20 percent reduction in the budget request for fiscal year 1980 and the loss of two staff members.

Public Laws, Executive Orders, and Presidential Memoranda dealing with energy, envision and authorize a strong, structured energy conservation program within the Federal sector. If DOE continues to ignore its responsibility, mandated requirements will never be met. We believe that DOE should effectively serve as the lead agency for energy conservation

throughout the Federal Government, and should make this point known to other agencies and departments.

In conclusion, Mr. Chairman, we believe that the Federal Government needs to conserve energy, that its program for doing so is in disarray, and that DOE must accept the responsibility. We have continually reported what we believe to be the major problems, but DOE has not taken corrective action. We are concerned that DOE's lack of leadership and its failure to aggressively pursue energy conservation planning is causing the Government to miss energy conservation opportunities. To put it in perspective, if the Federal Government were to save 20 percent of its total energy use, which we believe is feasible, it could reduce the Nation's energy demand by the equivalent of over 150,000 barrels of oil a day--about 31 percent of the Nation's shortfall resulting from the cutoff of oil imports from Iran.

That concludes my statement, Mr. Chairman. I would be happy to respond to questions.

ATTACHMENT I

Listing and Summary Of GAO Reports On Energy Conservation In The Federal Sector

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

We evaluated the Department of Energy's (DOE'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 (EPCA) (Public Law 94-163).

We found that mandatory lighting and thermal efficiency standards have not been established. We concluded 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.

2. "Transportation Energy Conservation In The Federal Government" (EMD-79-3, January 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.

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3. "More Use Should Be Made Of Energy-Saving Products In Federal Buildings" (EMD-79-10, January 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.

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

The Energy Conservation Investment Program afforded DOE, 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.

5. "Evaluation Of The Plan To Conserve Energy In Federal Buildings Through Retrofit Programs" (EMD-78-2,

December 22, 1977 and EMD-78-89, July 20, 1978).

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 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.

In the second report cited above, we evaluated the comments DOE provided to the House Committee on Government Operations and the Senate Committee on Governmental Affairs on our earlier report. 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 (P.L. 94-163), is not being aggressively pursued.

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

Although the Federal Government has been promoting energy conservation since late 1973 and several agencies have programs that deal

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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.

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

GAO 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.