

DOCUMENT RESUME

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[The Department of Energy's Development of a 10-Year Plan for Federal Buildings]. EMD-78-89; B-178205. July 20, 1978. 6 pp. + enclosure (6 pp.).

Report to Secretary, Department of Energy; by Monte Canfield, Jr., Director, Energy and Minerals Div.

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Congressional Relevance: House Committee on Interstate and Foreign Commerce; Senate Committee on Energy and Natural Resources.

Authority: Energy Policy and Conservation Act of 1975 (P.L. 94-163). National Energy Act. Executive Order 11912. Executive Order 12003. OMB Circular A-94.

The Energy Policy and Conservation Act, enacted in 1975, required the President to develop and implement a 10-year plan for energy conservation in buildings owned or leased by the Federal Government. The Department of Energy (DOE) has the responsibility, originally delegated to the Federal Energy Administration, for coordinating development of the plan. As of June 1978, DOE still had no document which can be called "the 10-year plan." Although the original draft plan prepared in June 1977 would have substantially met requirements of the act, it has been discarded, and DOE is now trying to place much of the development burden on other executive agencies. This approach will probably result in a plan that will not be as comprehensive as the original draft plan. Also, DOE is delaying issuance of guidelines pending passage of the proposed National Energy Act. Energy used in the 399,000 buildings owned and operated by the Federal Government amounts to about 39% of the energy used by the Federal Government. The Secretary of Energy should focus DOE's efforts to develop a 10-year plan along the original lines, reevaluate the response to recommendations contained in a previous report and incorporate items recommended into the plan, and evaluate the existing Federal Energy Management Program structure in terms of its responsibilities and funding level.

(HTW)



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UNITED STATES GENERAL ACCOUNTING OFFICE  
WASHINGTON, D.C. 20548

ENERGY AND MINERALS  
DIVISION

B-178205

July 20, 1978

The Honorable  
The Secretary of Energy

Dear Mr. Secretary:

We have received the comments the Department of Energy (DOE) provided to the House Committee on Government Operations and the Senate Committee on Governmental Affairs on our report "Evaluation of the Plan to Conserve Energy in Federal Buildings Through Retrofit Programs" (EMD-78-2, Dec. 22, 1977). Based on our evaluation of the comments and discussions with your staff, we have concluded that the comments are generally not responsive to the matters discussed in the report.

We are particularly concerned that the development of the 10-year plan for energy conservation in Federal buildings, as required by the Energy Policy and Conservation Act (EPCA), is not being aggressively pursued. In this respect, DOE has discarded the original draft plan and is now trying to develop limited guidelines for carrying out a program of energy conservation in Federal buildings. In our opinion, this new approach will not be as comprehensive as the original draft plan and will not adequately fulfill the requirements of EPCA. In addition, there appears to be a lack of DOE leadership and support of the Federal Energy Management Program. These specific items are discussed in more detail in the following sections of this report. Our evaluation of DOE's comments on each recommendation set forth in our previous report is included as Enclosure I.

A COMPREHENSIVE 10-YEAR  
PLAN IS NOT BEING DEVELOPED

The Energy Policy and Conservation Act (P.L. 94-163), enacted on December 22, 1975, required the President to develop and implement a 10-year plan for energy conservation in buildings owned or leased by the Federal Government. Section 381 (a) (2) of the Act provides that

"The President shall develop and, to the extent of his authority under other law, implement a

EMD-78-89  
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10-year plan for energy conservation with respect to buildings owned or leased by an agency of the United States. Such plan shall include mandatory lighting efficiency standards, mandatory thermal efficiency standards and insulation requirements, restrictions on hours of operation, thermostat controls and other conditions of operation, and plans for replacing or retrofitting to meet such standards."

To implement this mandate, Executive Order 11912 was issued on April 13, 1976. This order delegated the responsibility for coordinating the development of the 10-year plan to the Administrator of the Federal Energy Administration (FEA). 1/

Executive Order 12003, amending Executive Order 11912, was issued on July 20, 1977. Section 1 of the earlier Executive Order was superseded and the responsibilities of the Administrator of FEA were redefined in a new section 10. Section 10 (a) (1) of Executive Order 11912, as amended, states:

"The Administrator of the Federal Energy Administration, hereinafter referred to as the Administrator, shall develop, with the concurrence of the Director of the Office of Management and Budget, and in consultation with the Secretary of Defense, the Secretary of Housing and Urban Development, the Administrator of Veterans' Affairs, the Administrator of the Energy Research and Development Administration, the Administrator of General Services, and the heads of such other Executive agencies as he deems appropriate, the ten-year plan for energy conservation with respect to Government buildings, as provided by section 381 (a) (2) of the Energy Policy and Conservation Act \* \* \*." (Underscoring added.)

The amended order also requires DOE to issue guidelines to Federal agencies for preparation of individual agency energy conservation plans.

Each of these legislative and executive actions clearly imply strong management and policy direction with respect to energy conservation in Federal buildings and facilities. Both

1/FEA programs and functions were transferred to the Department of Energy effective October 1, 1977.

the statute and the executive orders implementing the statute contemplate a single 10-year plan that must include certain specific mandatory standards governing energy efficiency in Federal buildings.

Development of this plan was well underway in June 1977 when a consultant provided DOE with a draft 10-year plan. The plan addressed new and existing buildings, leased space, building operations, and development of standards for thermal and lighting 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 our December 22, 1977, report evaluating the retrofit portion of the draft plan, we concluded that the plan was generally very comprehensive and provided agencies with detailed guidance for developing a retrofit program. However, there were several areas where we thought the plan should be improved before it was submitted to the President for final approval.

In DOE's response to the report, they stated that "Before this draft plan could be formally circulated for comment, it became outdated by the promulgation of Executive Order 12003 and the proposed National Energy Act (NEA)." In further discussions with program officials and officials from DOE's General Counsel and Policy and Evaluation staffs, we were told that the draft plan is no longer under active consideration and that the focus has shifted from the development of a single comprehensive plan by DOE to the preparation of guidelines for individual agencies to develop their own plans applicable principally to federally owned buildings. Since the guidelines are being prepared on the basis of the amended executive order and selected provisions of the proposed NEA, DOE is awaiting passage of the NEA before issuing the guidelines.

We believe that DOE's initial approach to preparing a 10-year plan and the strategic planning concepts embodied in the draft plan represented a more effective and practical management approach for achieving energy conservation in the Federal Government. Moreover, agency plans prepared pursuant to the guidelines that DOE is now preparing cannot be consolidated into a 10-year plan that meets the requirements of EPCA because the guidelines do not address all the issues set forth in the statute. For example, EPCA requires that mandatory lighting and thermal efficiency standards be included in the 10-year plan. Whereas the draft 10-year plan recognized the requirement for these standards and outlined a strategy for their development, the guidelines do not mention the standards.

Similarly, although EPCA requires development and implementation of a 10-year plan for energy conservation in buildings owned or leased by the Federal Government, the guidelines address only federally owned buildings. In comparison, the draft 10-year plan required that agencies specify the same environmental conditions in leased buildings as for Government-owned buildings, and that any leased building built specifically for Federal occupancy should meet the energy performance targets applicable to federally owned buildings.

The guidelines also specifically prohibit agencies from using energy reductions achieved in leased buildings for meeting the energy reduction goals that have been established for Federal buildings. Such a restriction not only fails to fulfill EPCA requirements, but, we believe, will discourage agencies from taking effective energy conservation measures in leased space.

PROGRAM MANAGEMENT AND LEADERSHIP  
RESPONSIBILITIES NEED TO BE FULFILLED

We are also concerned about the lack of direction and overall management effort that DOE is giving to the Federal Energy Management Program (FEMP). The Executive Branch initially established FEMP to manage and control the Federal Government's energy use and to demonstrate to the Nation that the U.S. energy problem is of major concern. The 25 most energy-intensive agencies of the executive branch participate in the program. The responsibility for policy development, overall program coordination, promotion, monitoring, and reporting of FEMP rests with DOE. While the legislative and executive mandates discussed above clearly imply strong management and policy direction with respect to energy conservation in the Federal sector, DOE has not placed sufficient emphasis on FEMP to support such a role. The current shift from the development of a comprehensive 10-year plan to the issuance of limited guidelines for agencies to formulate their own plans is an example of DOE's failure to provide adequate leadership and management of Federal energy conservation efforts.

In addition, FEMP's organizational placement and low funding level appear to weaken its effectiveness. At the time DOE was established, FEMP was located in an organizational entity titled, "Energy Conservation" with broad responsibility for energy conservation efforts in the Federal Government. DOE's current organizational structure, however, places FEMP within the "Buildings and Community Systems Division" and, as such, FEMP appears to be concerned only with energy use in Federal buildings instead of

fulfilling the role of a comprehensive program manager. With respect to funding, FEMP accounts for only \$500,000 of DOE's proposed budget for fiscal year 1979. This proposed amount is \$115,000 less than was budgeted for fiscal year 1978 and has occurred despite additional program responsibilities assigned to FEMP through Executive Order 11912, as amended.

#### CONCLUSIONS AND RECOMMENDATIONS

The Congress passed EPCA in December 1975, requiring the development of a 10-year plan. Executive Order 11912, as amended, gave DOE responsibility for developing the plan. In June 1978, 2 1/2 years after passage of EPCA and over 2 years after it was given responsibility for developing the plan, DOE still has no document which can be called "The 10-year Plan." In fact, the 10-year plan appears to have been more a reality in June 1977 than it is today.

Although the original draft plan prepared in June 1977 would have substantially met EPCA requirements, it has been discarded, and DOE is now trying to place much of the development burden on other executive agencies. In our opinion, this new approach will result in a plan that will not be as comprehensive as the original draft plan and will not fulfill the EPCA requirements. In addition, DOE is delaying the issuance of the guidelines pending passage of the NEA. When portions of the NEA which affect the guidelines are passed, the guidelines may still have to be reworked to conform with the law.

The Federal Government owns and operates over 399,000 buildings. The energy used in these buildings amounts to about 39 percent of the energy that is used by the Federal Government. With an energy use of this magnitude, the need for developing a comprehensive plan to fulfill the building-related requirements of EPCA becomes clear.

Accordingly, we recommend that you:

- Focus your Department's efforts to develop a 10-year plan along the original lines, and take action to promptly fulfill the requirements set forth in EPCA and Executive Order 11912, as amended.
- Reevaluate your response to the recommendations contained in our previous report and incorporate these items into the 10-year plan.

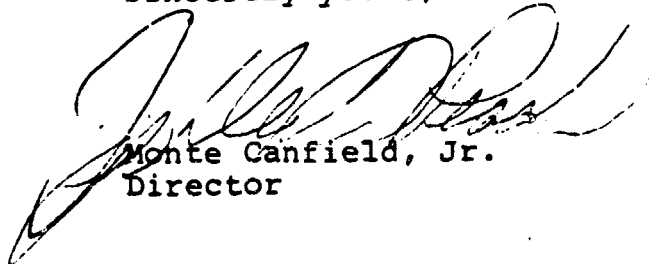
--Evaluate the existing FEMP structure in terms of its responsibilities and funding level to assure that the program is able to provide effective leadership and management of Federal energy conservation efforts.

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As you know, section 236 of the Legislative Reorganization Act of 1970 requires the head of a Federal agency to submit a written statement on actions taken on our recommendations to the Senate Committee on Governmental Affairs and the House Committee on Government Operations not later than 60 days after the date of the report and to the House and Senate Committees on Appropriations with the agency's first request for appropriations made more than 60 days after the date of the report.

We are sending copies of this report to the four Committees mentioned above and to the Chairmen of energy-related congressional committees. We are also sending copies to the Director, Office of Management and Budget.

Sincerely yours,



Monte Canfield, Jr.  
Director

Enclosure - 1

GAO Evaluation of Comments Made by DOE  
On Recommendations Contained In Report No. EMD-78-2

OUR RECOMMENDATION

Develop a method for evaluating and selecting projects which will account for benefits over a project's expected life and consider the time value of money. An analysis, such as the one required by Office of Management and Budget (OMB) Circular A-94, should be made for each proposed project requiring retrofit funds.

DOE comments

In response to Executive Order 12003, DOE is developing life cycle costing methods for use by agencies in developing their 10-year building plans. It provides guidance for estimating and comparing life cycle capital and operating costs of Federal buildings. It also provides a means for selecting the most cost- and energy-efficient projects for funding.

The method under development is consistent with the guidance contained in OMB Circular A-94.

Our evaluation

While the action being taken by DOE is responsive to the recommendation, they are apparently ignoring the specific requirement for a 10-year plan required by Section 381 (a) (2) of the Energy Policy and Conservation Act (EPCA).

OUR RECOMMENDATION

Establish a procedure whereby proposed retrofit projects of all agencies will be centrally approved by DOE. This procedure should insure that only those projects generating the greatest benefits are funded. The DOE Secretary should also obtain better control of program funds by (1) seeking legislation which provides that all funds for executive branch energy conservation projects be appropriated to DOE or (2) requiring agencies to identify and dedicate within their budget funds for energy conservation retrofit projects.



DOE comments

There is currently no legal authority for the DOE to centrally fund building retrofit projects. It would appear from reading Section 701, "Conservation Plan Authorization," of the proposed National Energy Act (NEA) that the Congress does not intend that retrofit funds be appropriated to DOE for redistribution to all other agencies. In addition, OMB will have all the budget information available from all agencies to, in effect, serve as the central funding authority.

OMB is also required by E.O. 12003 to consult with DOE on budget items relating to the energy conservation programs of agencies. DOE will, therefore, have an opportunity to make recommendations with respect to building retrofit funding.

With respect to the second recommendation, the proposed NEA contains a requirement that each Federal agency shall set forth and identify in its budget request separate line items for funds requested for energy projects. The cooperation of OMB will be necessary to insure that all Government departments and agencies use this procedure for budgeting for energy conservation projects. This will insure that once a project is approved and funds appropriated by Congress the funds are non-transferable and must be used on the approved energy retrofit project. In addition, the Congress appears to be close to enacting legislation with regards to energy conservation retrofit programs for Federal buildings as part of the NEA. Thus, a master appropriation to DOE does not appear to be needed.

Our evaluation

The DOE comments do not address the initial recommendation that a procedure be established to centrally approve retrofit projects. Without such a procedure, the Government has no assurance that those projects generating the greatest total benefits will be selected and funded first. While it does appear that the proposed NEA intends for energy conservation projects to be funded by line-item budgeting, we believe some procedures are necessary to centrally review and approve such projects.

Currently, there is no procedure to set priorities for project completion on an interagency basis. While OMB gets all agency budget information and, as a result of Executive Order 12003, is required to coordinate with DOE on energy conservation, we do not believe the information currently available to OMB is adequate for them to establish project funding priorities among agencies. For example, in GS.'s

fiscal year 1978 budget only \$782,000 of energy expenditures were identified for specific projects while the total proposed budget for energy conservation was over \$13.4 million. Even for those projects specifically identified, no information was provided on energy savings or economic feasibility. Consequently, these projects could not be compared even within GSA, much less compared to projects from other agencies. Even if agencies were required to submit information to OMB for making decisions on the funding priority of energy conservation projects, we believe that OMB may not evaluate these data on an interagency basis. Traditionally, OMB has reviewed budget submissions on an individual agency basis instead of making comparisons across agency lines, especially at this level of detail.

We believe that DOE's 10-year plan for energy conservation in Federal buildings should, at a minimum, include procedures for centrally reviewing and approving proposed retrofit projects for all agencies. Such a procedure is not precluded by current provisions of the proposed NEA. In fact, in its recognition that the most effective projects should be funded first, the proposed Act appears to encourage such a centralized review and approval process.

#### OUR RECOMMENDATION

Include a section in the 10-year plan that requires that personnel developing bid packages consider energy efficiency when purchasing or replacing building equipment. The life cycle costing techniques could be employed.

#### DOE comments

Section 3 of Executive Order 11912, April 13, 1976, delegated to the Administrator of the Office of Federal Procurement Policy (OFPP) the responsibility contained in Section 381 (a)(1) of EPCA to provide overall direction of procurement policy.

OFPP Policy Letter No. 76-1, "Federal Procurement Policy Concerning Energy Conservation," was issued August 6, 1976. This letter established Federal procurement policy for energy conservation with specific procedural implementations to be promulgated in the Armed Services Procurement Regulations and the Federal Procurement Regulations.

The Armed Services Procurement Regulations have been revised by the Department of Defense, and the General Services Administration is in the process of revising and publishing the Federal Procurement Regulations.

Our evaluation

Although DOE may legitimately avoid duplicating or contradicting policy responsibilities delegated to OFPP, delegation of section 381 (a)(1) authority to OFPP does not preclude DOE from including procurement procedures in the 10-year plan. EPCA stipulates that, among other things, the 10-year plan shall include certain mandatory conservation standards with plans for replacing or retrofitting to meet such standards. Since this will necessitate purchasing new or replacement items, we believe the 10-year plan should include provisions for insuring that the most economical and energy-efficient items are purchased.

One method of accomplishing this objective is to require that agencies use life cycle costing when purchasing new or replacement equipment. In our opinion, including such a requirement in the 10-year plan would not contradict or duplicate policy issued by OFPP.

OUR RECOMMENDATION

Include a requirement for agencies to use the retrofit handbook developed by DOE for performing initial building surveys. Also, involve DOE regional offices in the retrofit handbook marketing effort through, for example, demonstrations at the regional Federal Executive Board meetings.

DOE comments

Over 5,000 copies of the handbook, "Identifying Retrofit Projects for Buildings," were distributed to agencies and departments for their use in performing building surveys. In a letter from the FEA Administrator to the heads of departments and agencies dated April 22, 1977, the Administrator requested that agencies further distribute the handbook within their organization, as appropriate. Copies of the handbook were also distributed to the then-FEA Regional Offices.

Contrary to the report, DOE has actively promoted the use of the handbook to other agencies, and has field tested it with the U.S. Coast Guard and the Department of the Interior. However, to require that agencies use the DOE handbook exclusively would be to ignore the similar publications that other agencies have developed for their particular needs.

DOE feels that the handbook is a very useful document and will certainly continue to promote its use, with particular emphasis in meeting the retrofit goals of Executive Order 12003 in

undertaking cost-effective energy surveys to identify potential retrofit projects for inclusion in the energy program.

### Our evaluation

While we agree with DOE that agencies should not be precluded from using other retrofit handbooks, we believe they should be encouraged to use the manual prepared by DOE because of its simple format and detailed procedures for calculating energy savings. We noted in the report that DOE appeared to have done an adequate job of marketing the handbook in the Washington area. Based on our review, however, similar efforts were not undertaken in DOE regional offices. While many copies of the handbook were distributed to agency headquarters, these did not, in many cases, get to agency field offices where the building surveys have to be conducted. We believe that DOE should actively market the retrofit handbook to agency field offices.

### OUR RECOMMENDATION

Develop specific procedures for agencies to follow to support the need for an energy management system (EMS). When reviewing agency plans, DOE should insure that these procedures are included. When DOE participates in decisions to fund these systems, the detailed evaluations should be reviewed to insure that all alternatives have been considered and cost savings associated with energy reductions are clearly identified.

### DOE comments

Under the guidelines to be published, EMS will be subjected to the same cost/benefit analysis as any energy conservation project. We believe that, under the guidelines, agencies will have to do an analysis and justification of energy savings of EMS's in choosing this as an option.

DOE, in its agency plan review, will take special note of EMS's to determine whether the energy savings identified are justified.

### Our evaluation

As discussed in our report, the problem is not that EMS's cannot save money. Rather, the problem has resulted from large projected dollar savings in maintenance, repair, and operations with relatively small energy savings. While such projects should possibly be funded, we believe that funds other than those set aside for energy conservation purposes should be used. Using

only a cost/benefit ratio to set priorities and including all benefits--maintenance and repair as well as energy--can result in EMS projects being selected which save considerable money but little energy. The primary intent of funding an energy conservation retrofit project is to save energy. Without a specific procedure to evaluate EMS projects, this objective may not be achieved.

#### OUF RECOMMENDATION

Develop a definition for retrofit projects, to distinguish them from normal repair and alteration projects.

#### DOE comments

The guidelines implementing Executive Order 12003 and relevant portions of the NEA will promulgate a definition of retrofit projects as one of a number of things aimed at excluding energy retrofit projects from normal repair and alteration projects.

#### Our evaluation

We believe the intent of Executive Order 12003 and the proposed NEA is to reinforce, not replace, the statutory requirement set forth in EPCA. The 10-year plan provides the overall framework for energy conservation in Federal buildings and facilities. As such, it should contain a clear, concise definition of what constitutes an energy conservation retrofit project.