

REPORT BY THE U.S. RELEASED

# General Accounting Office

## Procurement Practices In DOE's Office Of The Assistant Secretary For Conservation And Renewable Energy

Delays have been occurring in processing procurement requests for building energy conservation research and development projects and activities in the Department of Energy's Office of the Assistant Secretary for Conservation and Renewable Energy. This report addresses concerns over these delays and specifically discusses the

- Assistant Secretary's financial planning for fiscal year 1983,
- Assistant Secretary's approval of these procurement requests,
- delegation of procurement responsibility by the Assistant Secretary,
- disposition of any funds remaining at the end of the fiscal year, and
- causes and effects of delays in approving procurement requests.



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RESOURCES, COMMUNITY,  
AND ECONOMIC DEVELOPMENT  
DIVISION

B-212916

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

The Honorable Marilyn Lloyd  
Chairman, Subcommittee on Energy  
Research and Production  
Committee on Science and Technology  
House of Representatives

The Honorable Norman Y. Mineta  
House of Representatives

Your May 19, 1983, letter expressed concerns about apparent delays in processing procurement requests by the Department of Energy's (DOE's) Office of the Assistant Secretary for Conservation and Renewable Energy and about apparent discrepancies between the Assistant Secretary's procurement practices and applicable DOE guidelines. Accordingly, you requested that we address six specific questions relating to these concerns and provide our responses by September 15, 1983.

Each of your questions<sup>1</sup> as well as a brief summary of our responses are presented on the following pages. Our detailed responses are discussed in appendix I to this report. In conducting our review, we obtained information from DOE headquarters in Washington, D.C.; its San Francisco, California, and Oak Ridge, Tennessee, Operations Offices; the Oak Ridge National Laboratory; the Lawrence Berkeley Laboratory, Berkeley, California; the National Bureau of Standards, Gaithersburg, Maryland; and the Solar Energy Research Institute, Golden, Colorado.

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<sup>1</sup>Based on clarifications obtained from your offices, the questions have been slightly reworded.

To meet your September 15, 1983, deadline, we limited our review primarily to those procurement practices affecting programs administered by DOE's Office of Building Energy Research and Development (hereinafter referred to as the Building Energy Office). Although funding for these programs represents only about 4 percent of total funding for all programs under the Assistant Secretary, procurement requests originating within the Building Energy Office seemed to be experiencing the most frequent processing delays. Further details of our review objectives, scope, and methodology are contained in appendix I.

#### SUMMARY OF INFORMATION OBTAINED

Your questions generally addressed the Assistant Secretary's financial planning, procurement request review process, and causes and effects of delays in processing procurement requests. The schedule you requested comparing fiscal years 1982 and 1983 procurement authorizations for the Assistant Secretary's programs is contained in appendix II.

--Does the Assistant Secretary have financial plans for fiscal year 1983 outlining proposed authorization schedules for each of the programs under his jurisdiction?

The Assistant Secretary does have fiscal year 1983 financial plans covering the Conservation and Renewable Energy programs to be funded during the year. The plans, however, appeared to be of questionable value as tools for planning and directing procurements. For the Building Energy Office, the plans were revised frequently and were more like status reports in that planned funding levels and authorization dates for planned projects often changed to reflect project additions, deletions, or modifications based on events occurring during the year. Without detailed review of each revised plan and individual project, tracking these various changes was not possible.

--How do procurement requests and authorizations to date compare with planned actions? With authorization rates for previous years?

Because of the limited usefulness of the Assistant Secretary's financial plans there was no ready way to determine how specific procurement requests and authorizations (the Assistant Secretary's approval for further DOE processing) compared with planned actions. From other financial data available, we were able to compare the overall rates at which procurement requests were being authorized for programs under the Assistant Secretary. We found that requests originating within the

Building Energy Office were being approved at about a 37-percent lower rate in March 1983 than in March 1982; however, the approval activity increased thereafter and, by June 1983, the authorization rate was only about 5 percent lower than in June 1982. In comparison with the Assistant Secretary's other program offices' authorization rates, the Building Energy Office's authorization rates since January 1983 have been consistently lower and as late as June 1983 was still 18.5 percent lower.

--Does the Assistant Secretary delegate procurement responsibility to his subordinates in a manner consistent with DOE guidelines?

We were unable to locate and DOE officials were not aware of any DOE-wide guidelines governing procurement request approval processes. Therefore, it was not possible to determine if the Assistant Secretary's delegation of procurement authority is consistent with such guidelines.

The Assistant Secretary for Conservation and Renewable Energy and his immediate staff began making detailed reviews of all procurement requests generated within the Building Energy Office in fiscal year 1983. These detailed reviews were made regardless of the dollar level of the procurement. This process appeared time-consuming, held up requests for new and ongoing projects, and did not allow for delegation of responsibility below the Assistant Secretary level.

Other program offices under the Assistant Secretary for Conservation and Renewable Energy, as well as other DOE offices, seem to have greater latitude in approving procurement requests originating within their respective offices. For example, DOE officials advised us that the Assistant Secretary for Fossil Energy only approves procurement requests over \$1 million and his Deputy Assistant Secretaries approve requests up to \$1 million.

--What has been the cause of apparent delays in issuing procurement requests from DOE, especially in the areas of the Residential Conservation Service and the Building Energy Office?

Delays in authorization of procurement requests in the Assistant Secretary's office have been primarily for programs in the Building Energy Office. This latter office administers the Residential Conservation Service, which is one of the programs experiencing delays. The Assistant Secretary's staff said that delays in processing requests

were caused by the questionable quality of requests prepared by program managers and changes in the direction or timing of the projects for which the requests were prepared. On the other hand, Building Energy Office officials stated that most of the delays were caused by extensive reviews being made at the Assistant Secretary level and, in the case of the Residential Conservation Service, a proposed deferral of program funds.

Our review of the Building Energy Office's procurement tracking system showed that, at times, over 50 percent of the dollar value of the requests awaiting authorization were either being reviewed by the Assistant Secretary's staff or had been returned to the Building Energy Office for further work. With respect to the proposed deferral, the Assistant Secretary has taken action to defer spending \$2.5 million in Residential Conservation Service program funds from fiscal year 1983 to fiscal year 1984. This amount represents more than half of that program's budget for fiscal year 1983, and this action has left that program in turmoil. The deferral action is currently pending. If it is rejected by the Congress and the funds are made available, much last-minute planning will be needed to commit these funds.

--Has the Assistant Secretary's approval process to date resulted in significant reductions in the amounts planned to be authorized? If so, what actions has DOE taken or does it plan to take to use these funds before the close of the fiscal year?

By June 1983, about 94 percent of the Assistant Secretary's fiscal year 1983 total funds was authorized. However, only 76 percent of the Building Energy Office funds had been authorized by June 1983, and questions remain concerning the way the rest of the funds are to be spent and the status of the \$2.5 million proposed deferral of Residential Conservation Service funds. Additionally, in some instances, funds which the Assistant Secretary has authorized for expenditure may not be available for researchers because the Assistant Secretary has required that certain conditions, such as additional definition of tasks, be met before funds will be released.

--How have delays in procurement requests affected the operation of conservation and solar energy programs, particularly at the National Laboratories? For example, have contractors been forced to lay-off employees, slow down, or terminate programs?

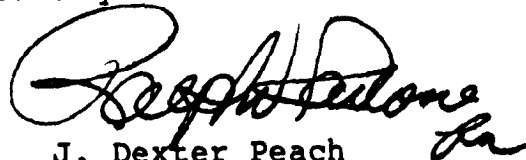
Research institutions covered during our review have had to stop research programs in "mid-stream" because programs have been canceled or funding was not timely, and there was concern that reports, basic research information, and other deliverables may not be available after conducting the research. These institutions have cited examples where they operated during fiscal year 1983 under a threat of employee terminations, although only one institution informed us that it had actually laid-off employees. Laboratory officials stated that better communication with, and less indecision by, the Assistant Secretary's staff could have prevented these problems and are needed to prevent them from continuing into fiscal year 1984.

AGENCY COMMENTS

A draft of this report was provided to DOE for review and comment. DOE did not provide written comments in time to be included in this report. We discussed the material presented in this report with the Assistant Secretary's staff and with program managers in the Building Energy Office and included their views where appropriate.

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Unless you publicly announce its contents earlier, we plan no further distribution of this report until September 21, 1983. At that time we will send copies to the Secretary of Energy and interested committees and Members of Congress. Copies will also be made available to others upon request.

  
J. Dexter Peach  
Director

C o n t e n t s

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ABBREVIATIONS

DOE Department of Energy

GAO General Accounting Office

PROCUREMENT PRACTICES IN DOE'S OFFICE OF  
THE ASSISTANT SECRETARY FOR CONSERVATION AND RENEWABLE ENERGY  
OBJECTIVES, SCOPE, AND METHODOLOGY

The objectives of our review were to obtain information related to six specific questions concerning procurement practices by the Department of Energy's (DOE's) Assistant Secretary for Conservation and Renewable Energy. These questions were raised in a May 19, 1983, letter from the Chairman, Subcommittee on Energy and Power, House Committee on Energy and Commerce; the Chairman, Subcommittee on Energy Research and Production, House Committee on Science and Technology; and Representative Norman Y. Mineta. We were requested to provide our responses by September 15, 1983. The questions have been slightly reworded based on clarifications obtained from the requestors' offices. The questions raised, followed by our detailed responses, are contained in the sections beginning on page 3 of this appendix.

In order to respond to the questions, we obtained and reviewed financial and procurement records at and interviewed officials in the Office of the Assistant Secretary for Conservation and Renewable Energy in Washington, D.C., and at DOE Operations Offices in Oak Ridge, Tennessee, and Oakland, California. As agreed with the requestors, our review included visits to the Oak Ridge National Laboratory in Oak Ridge, Tennessee; the Lawrence Berkeley Laboratory in Berkeley, California; and the National Bureau of Standards in Gaithersburg, Maryland. We also obtained information from officials in DOE's Offices of Energy Research, Assistant Secretary for Fossil Energy, and Assistant Secretary for Management and Administration concerning delegation of procurement responsibility. Additionally, we talked with officials of the Solar Energy Research Institute in Golden, Colorado, to obtain specific information on funding delays and personnel layoffs.

As clarified with the requestors' respective offices, we defined the term "obligations" as the funds authorized for procurement requests approved by the Assistant Secretary's office. We limited our review of his planning efforts to that financial planning available at the start of fiscal year 1983 or shortly after the Assistant Secretary had received that year's appropriations. We limited our discussion on delegation of authority to the procurement request review process used by the Assistant Secretary and compared this with the processes used by the Assistant Secretary for Fossil Energy and the Director of the Office of Energy Research. The Office of Energy Research carries out long-term research in life sciences research and nuclear medicine applications, high energy physics, and nuclear physics. To meet the September 15, 1983, deadline for responding to the questions raised and as agreed with the requestors' respective

offices, we limited our review primarily to those procurement practices related to the programs administered by the Office of Building Energy Research and Development (hereinafter referred to as the Building Energy Office). Programs in this office account for only about 4 percent of the Assistant Secretary's total obligational authority for fiscal year 1983. However, processing delays seemed to be occurring most frequently with respect to procurement requests originating within that office.

In reviewing the Assistant Secretary's procurement request review process, we analyzed monthly planning documents for fiscal year 1983; used available financial documents to compare actual authorizations to total obligational authority available for fiscal years 1982 and 1983; and reviewed correspondence and documentation of problems reported to us by National Laboratory and DOE officials. In addition, we obtained copies of the Building Energy Office procurement tracking file to help us determine where problems in the processing of requests were occurring. We tested the accuracy of this file by reviewing every fourth request on which the office had maintained detailed records. This amounted to reviewing 9 of 39 requests. We reviewed documentation and a manual procurement-logging system to determine the accuracy of dates and actions reported for each of the nine requests.

Finally, we prepared a comparison of financial data for fiscal years 1982 and 1983 (data prior to fiscal year 1982 was unavailable) from DOE records for Conservation and Renewable Energy programs. We did not include capital equipment or programs which had little or no funding for the 2 years.

A draft of this report was provided to DOE for review and comment; however, DOE did not provide written comments in time to be included in this report. We did, however, discuss the material presented with staff of the Assistant Secretary for Conservation and Renewable Energy and with DOE program managers in the Building Energy Office, and included their views where appropriate. Our review was conducted primarily between May 23 and July 15, 1983, and, except as noted above, we made our review in accordance with generally accepted government auditing standards.

#### OVERVIEW OF THE OFFICE OF THE ASSISTANT SECRETARY FOR CONSERVATION AND RENEWABLE ENERGY

The Assistant Secretary's office is organized into three program areas: conservation, renewable energy, and State and local assistance programs. Under the conservation program area--headed by a Deputy Assistant Secretary--research and development is generally conducted through National Laboratories or private contractors and is aimed at achieving energy savings in areas such as buildings and vehicles. Research and development efforts carried out under the renewable energy program area, also

headed by a Deputy Assistant Secretary, are aimed at further developing the various solar energy and other renewable technologies such as geothermal energy. The State and local assistance area consists of a series of energy-related programs, such as weatherization of homes, which are partially funded by Federal grants; this program area is headed by an office director. The Assistant Secretary's total obligational authority for carrying out work related to all three program areas during fiscal year 1983 was \$918 million.

Within the Office of the Deputy Assistant Secretary for Conservation is the Building Energy Office, which is responsible for Federal research and development efforts directed at conserving energy used in buildings. These efforts are expected to be funded at about \$34 million during fiscal year 1983, not including \$2.5 million in funds which has been proposed for deferral to fiscal year 1984.

Detailed responses to the requestors' questions concerning procurement practices of the Assistant Secretary are presented below and on the following pages.

DOES THE ASSISTANT SECRETARY HAVE FINANCIAL PLANS FOR FISCAL YEAR 1983 OUTLINING PROPOSED AUTHORIZATION SCHEDULES FOR EACH OF THE PROGRAMS UNDER HIS JURISDICTION?

The Assistant Secretary does have fiscal year 1983 financial plans. These are generally prepared at the beginning of the fiscal year and consist of a Procurement Execution Plan which lists, by budget and reporting number (these numbers generally equate with individual programs within program areas), each research and development project to be funded during the fiscal year. The Procurement Execution Plan is designed to include each project's total estimated costs, funding planned for the fiscal year, and expected and actual dates those funds are to be authorized by the Assistant Secretary. It is intended to help provide guidance for the procurement actions of program managers within their respective areas. According to the Assistant Secretary's budget and finance officials, the plan represents the Assistant Secretary's official financial plan.

In reviewing the Building Energy Office's portion of the plan, covering the period November 1982 through May 1983, we noted that the plan was revised frequently (at least once per month) and was more of a status report in that planned funding and authorization dates often changed to reflect project additions, deletions, or modifications. The plan did not function as intended and was of questionable value as a management tool for guiding procurements within program areas. In reviewing the various revisions to the plan, we found the following:

- Projects in the plan were frequently listed without estimated costs.
- Projects with funding increases had changes in projected authorization dates without reference to original funding levels or original planned authorization dates.
- Each successive plan had projects not previously listed but without reference to projects they were replacing.
- Projects which were canceled during the year were dropped from the plan without any reference that they had ever been included.

Without detailed review of each revised plan and individual project, tracking these projects was not possible.

Our view as to the questionable value of the plan was shared by program officials at DOE headquarters. Building Energy Office officials pointed out that they believed the plan was unreliable as a planning tool, and the Assistant Secretary's own immediate staff stated that it was inaccurate and not up-to-date. The Assistant Secretary's staff said that they have attempted to turn the Procurement Execution Plan into a more effective planning tool but agreed that it is now a status report which is not effective in tracking individual projects. The staff added that they have begun exploring ways to make future plans more useful as planning tools.

HOW DO PROCUREMENT REQUESTS AND AUTHORIZATIONS  
TO DATE COMPARE WITH PLANNED ACTIONS? WITH  
AUTHORIZATION RATES FOR PREVIOUS YEARS?

Because of the problems previously noted with the Procurement Execution Plan we did not determine how specific procurement requests and authorizations compared with planned actions for fiscal year 1983. The Assistant Secretary's finance officials could not readily provide us with a list of all changes that had been made in the Procurement Execution Plan this fiscal year. These officials said that such a list could be made, but would involve a lengthy process of comparing each project from each updated plan and could not be done in time to meet our deadline for responding to the questions. In attempting to make such a comparison we found that, in many cases, specific transactions in the plan could be interpreted only by program managers or others familiar with the programs.

We were able to compare overall procurement request authorization rates for the various programs under the Assistant Secretary, but only for fiscal years 1982 and 1983; data prior to 1982 was unavailable. Appendix II shows, as requested, a monthly comparison of fiscal years 1982 and 1983 authorizations for

January through June as a percentage of total funds available for the year (appropriations plus funds carried-over from the prior year). Each conservation and renewable energy program is listed as well as total percentages for the various groups of programs. Each group is the responsibility of an office under the Assistant Secretary for Conservation and Renewable Energy.

The comparison shows that procurement request authorization rates for Building Energy programs, all of which are administered by the Building Energy Office, from March through June were lower in 1983 than in 1982. In March, April, and May the 1983 rates were from 27 to 37 percent lower than the 1982 rates; however, by June, the gap had narrowed to about 4 percent, as shown below.

Comparison of Fiscal Years 1982 and 1983  
Authorization Rates for Procurement Requests from the  
Building Energy Office

<u>Fiscal</u> <u>year</u>	<u>Percent authorized</u>			
	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>
1982	64.3	72.4	78.0	80.3
1983	<u>27.3</u>	<u>43.6</u>	<u>50.7</u>	<u>75.9</u>
Differences	<u>37.0</u>	<u>28.8</u>	<u>27.3</u>	<u>4.4</u>

Appendix II also shows that the Building Energy programs' authorization rates since January 1983 have been consistently lower than the average rate for all conservation and renewable programs. As late as June 1983, the rate for Building Energy programs was still 18.5 percent below the overall average, as shown on the following page.

Total Fiscal Year 1983 Authorization Rates for  
Conservation and Renewable Energy Versus  
Authorization Rates for the Building Energy Office

<u>Month</u>	<u>Percent of total funds authorized by the Assistant Secretary</u>	<u>Percent of Building Energy funds authorized</u>	<u>Differences in percents</u>
January	15.0	17.3	+ 2.3
February	38.1	24.3	-13.8
March	53.1	27.3	-25.8
April	67.9	43.6	-24.3
May	90.9	50.7	-40.2
June	94.4	75.9	-18.5

Additionally, during March, April, May, and June of 1983, Building Energy programs, as a group, had the lowest authorization rates of any other group of programs under the Assistant Secretary.

DOES THE ASSISTANT SECRETARY DELEGATE  
PROCUREMENT RESPONSIBILITY TO HIS SUBORDINATES  
IN A MANNER CONSISTENT WITH DOE GUIDELINES?

This question refers to the process being used by the Assistant Secretary for Conservation and Renewable Energy to review procurement requests submitted to his office by program officials. The Assistant Secretary approves or designates someone to approve procurement requests to be forwarded to the appropriate procurement official in the DOE procurement office. We were unable to locate any DOE guidelines governing how the various assistant secretaries are to administer procurement request review processes. Officials from DOE's Office of Organization and Management Systems, Assistant Secretary for Management and Administration, stated that they were responsible for knowing about such guidelines, but were unaware that any existed. Thus, determining whether the Assistant Secretary's delegation of procurement responsibility is consistent with DOE guidelines was not possible.

The procurement request review process currently being used by the Assistant Secretary is generally as follows. Early in the fiscal year (and throughout the year) program managers prepare individual procurement requests for projects expected to be started or continued during the year. These requests, which are

based in part on proposals from National Laboratories and other outside sources, are forwarded with revisions and modifications through management channels to the Assistant Secretary's office where they are reviewed and approved, rejected, or returned to program managers for further modification. When each project is approved, and it is determined that funds are available, the Assistant Secretary's office authorizes the procurement request to be forwarded to the DOE procurement office for actions necessary to consummate the procurement and provide funds.

Procurement requests are prepared by program offices under both the Deputy Assistant Secretary for Renewable Energy and the Deputy Assistant Secretary for Conservation. However, we found that two different procurement request review procedures were used to determine which requests would be approved.

Procurement requests under the Deputy Assistant Secretary for Renewable Energy are reviewed by the Deputy Assistant Secretary who depends on program managers for technical reviews. After his review the requests may be subject to a general review by the Assistant Secretary's staff but usually are not delayed before approval. The Assistant Secretary usually does not review in detail requests below \$1 million.

In contrast, all requests<sup>2</sup> under the Deputy Assistant Secretary for Conservation are funneled through one of three persons (one of whom is assigned to review Building Energy Office requests) in the Assistant Secretary's office for detailed review regardless of the dollar level of the procurement. The requests are then reviewed by the Deputy Assistant Secretary and are subject to review by the Assistant Secretary.

National Laboratory officials complained that this detailed review process for requests originating in the Building Energy Office (1) takes too much time when one person must review many requests in detail and (2) holds up funds for new and ongoing projects. They said that it is unreasonable to deal with the Assistant Secretary's staff on individual procurement request segments, which can be as low as \$25,000, when a laboratory budget for these programs is several million dollars. Laboratory officials stated that they should deal with technical people such as program managers on these segments. Building Energy Office program managers stated that this detailed review at the Assistant Secretary level is actually duplicative of the technical review done within the Building Energy Office. The program managers

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<sup>2</sup>Not only are all conservation procurement requests reviewed by the Assistant Secretary's office, but key portions of all incoming/outgoing official mail are reviewed as well, a practice not followed with respect to renewable energy.



further said that, under the previous assistant secretary, an office director (for example the Director of the Building Energy Office) would provide detailed review and recommend approval (such recommendation usually meant no subsequent review) for procurement requests up to and including \$100,000 and the Deputy Assistant Secretary would review and recommend approval for requests ranging from over \$100,000 to \$1 million. Only requests exceeding \$1 million were reviewed at the Assistant Secretary level.

To gain a perspective on how procurement requests are handled in other DOE research and development program areas, we talked with DOE officials representing the Office of Energy Research and the Assistant Secretary for Fossil Energy to determine their procedures for reviewing procurement requests. According to Energy Research officials, the Director, Office of Energy Research, does not become involved in detailed reviews of procurement requests except for high dollar value requests of over \$10 million. On the other hand, the Assistant Secretary for Fossil Energy approves procurement requests over \$1 million and Deputy Assistant Secretaries approve requests up to \$1 million. In the fossil energy area there is a staff at the assistant secretary level to provide some technical review; however, the Assistant Secretary primarily relies on the program managers for technical reviews.

The Assistant Secretary for Conservation and Renewable Energy's staff stated that the detailed review process currently being used for requests originating within the Building Energy Office may not be needed over the long term. The staff pointed out that detailed reviews had been necessary because of the high congressional and public interest in the conservation area and the Assistant Secretary's desire to reflect the administration's policy of leaving conservation research and development activities to the private sector.

WHAT HAS BEEN THE CAUSE OF APPARENT DELAYS  
IN ISSUING PROCUREMENT REQUESTS FROM DOE,  
ESPECIALLY IN THE AREAS OF THE RESIDENTIAL  
CONSERVATION SERVICE AND THE BUILDING ENERGY OFFICE?

Delays in issuing procurement requests in the Office of the Assistant Secretary for Conservation and Renewable Energy during fiscal year 1983 have involved primarily requests covering programs within the Building Energy Office. This latter office administers the Residential Conservation Service which is one of the programs experiencing delays. Delays have occurred in processing procurement requests originating within other offices as well; however, these delays have been more routine, less disruptive to normal operations, and fewer in number. For requests originating within the Building Energy Office, most delays can be attributed in some way to either the request preparation process within the Building Energy Office or to the

process under which requests are reviewed by the Assistant Secretary's staff, and in the case of the Residential Conservation Service Program, to a proposed deferral of funds. The Assistant Secretary has proposed that \$2.5 million of the \$4.9 million total funds for this program be deferred to fiscal year 1984. As of August 1, 1983, this proposed deferral was still pending before the Congress. The delays that have occurred in the Building Energy Office and the Residential Conservation Service are discussed below.

### Building Energy Office

The Assistant Secretary instructed his staff to review all procurement requests from the Building Energy Office before making final approval and forwarding to the DOE procurement office for funding. Our examination of this review process indicates that the Assistant Secretary's staff was questioning the quality of requests originating within that office due to

- insufficient description of the scope of work provided in the request,
- unanswered key technical questions,
- lack of justification for using a National Laboratory rather than another contractor to perform the work,
- wrong timing for the request,
- insufficient general or specific information,
- necessity of adding or more clearly stating research tasks, and
- requests needing changes in direction.

Because it was experiencing delays in obtaining authorization for its procurement requests, the Building Energy Office established a procurement tracking file to keep track of procurement requests and help isolate problems in processing the requests. The tracking file showed the dates, actions, current status, and persons involved in each step of the processing from the time a request was initiated until it was authorized or denied. Officials within the Building Energy Office contend that the tracking file clearly shows that delays in obtaining authorizations are caused by the Assistant Secretary's detailed review process.

We reviewed nine procurement tracking file summaries dated from March 15, to May 31, 1983. The summaries showed, on those particular dates, the status and/or who had possession of procurement requests prepared within the Building Energy Office.

The schedule below shows the percent of (1) the total number of Building Energy Office requests completed or in preparation and where they were in the review process and (2) the dollar value of all requests completed or in preparation and where the requests were in the review process.

Status of Procurement Requests  
Prepared by the Building Energy Office

Date of status report	Requests not yet submitted to the Assistant Secretary		Requests awaiting approval by Assistant Secretary officials		Requests returned to the Office by Assistant Secretary officials		Requests proposed for deferral		Requests in procurement office or already awarded	
	Number <sup>a</sup>	Value <sup>b</sup>	Number <sup>a</sup>	Value <sup>b</sup>	Number <sup>a</sup>	Value <sup>b</sup>	Number <sup>a</sup>	Value <sup>b</sup>	Number <sup>a</sup>	Value <sup>b</sup>
(percent)										
3/15/83 <sup>c</sup>	26	22	19	41	12	6	0	0	43	32
3/23/83	27	15	23	46	10	6	(d)	6	40	28
4/01/83	22	15	23	45	8	7	(d)	6	47	28
4/12/83	21	11	22	44	9	12	10	6	37	27
4/19/83	20	15	31	38	11	16	(d)	(d)	48	33
4/26/83	17	13	14	21	7	11	15	14	47	42
5/10/83	15	14	14	14	7	13	13	14	51	46
5/13/83	14	11	16	21	3	1	12	14	52	47
5/31/83	14	6	12	17	3	1	12	14	55	57

<sup>a</sup>Percentage of total number of procurement requests in process or being prepared by the Building Energy Office as of date of status report.

<sup>b</sup>Percentage of total dollar value of procurement requests in process or being prepared by the Building Energy Office as of date of status report.

<sup>c</sup>Information not available before this date. Status reports were set up because of delays in processing procurement requests.

<sup>d</sup>Information not provided on status report.

Comparison of the performance at the Assistant Secretary level and at the Building Energy Office level during the review process shows that, on these nine dates, the percent of the number of requests at both levels was generally about the same; however, the percent of the dollar value of the requests was consistently greater at the Assistant Secretary level as shown below.

--The percent of the number of requests at the Assistant Secretary level ranged from 7 percent less to 11 percent more than those in the Building Energy Office.

--The percent of funds at the Assistant Secretary level was higher eight of the nine dates (from 8 to 33 percent higher) than those in the Building Energy Office.

- The Assistant Secretary level had reviewed other requests which had been returned to the Building Energy Office for further work. These ranged from 3 to 12 percent of total requests representing 1 to 16 percent of total funds.
- On four of the nine dates, over 50 percent of the dollar value of the requests awaiting authorization were either awaiting approval at the Assistant Secretary level or had been returned to the Building Energy Office for further work.

Our further review of the individual requests listed in the tracking files disclosed instances of actions at the Assistant Secretary level which delayed authorizations, but in order to meet the September 15, 1983, deadline for our report, we did not take the time to determine the extent they were happening. In this regard, we noted the following examples:

- Procurement request packages were being lost at the Assistant Secretary level. New packages were prepared and the lost packages were found 2 weeks to 2 months later.
- One request was returned twice to program managers by the Assistant Secretary and his staff, questioned verbally 2 or 3 more times, misplaced, and finally approved almost 2 months after the Deputy Assistant Secretary had recommended approval.
- Briefings were given to the Assistant Secretary's staff which later could not remember the briefings had been given and the information had to be provided again.
- Requests frequently sat at the Assistant Secretary's level for 1 to 2 months with no final actions taken.

Building Energy Office and National Laboratory officials complained about indecision at the Assistant Secretary level on requests and stated that the procurement review process has created much uncertainty as to what research will be conducted and at what level it will be funded. Building Energy Office officials stated that they have no idea what types of programs the Assistant Secretary's staff will approve even though much time is spent in providing briefings and answering questions. To illustrate the indecision and uncertainty created by the review process, Building Energy Office officials provided the following example. The Buildings System Division of the Building Energy Office had \$6.5 million of \$10.3 million in unawarded procurements awaiting concurrence by the Assistant Secretary's staff in early May 1983. Procurement requests amounting to an additional \$3.2 million had been returned previously by the staff to the Division for rework.

On the other hand, the Assistant Secretary's staff stated that they have invested many hours providing clear guidance to the Building Energy Office on administration policy and procurement requests. They contended that the Building Energy Office's tracking file was inaccurate and biased against the Assistant Secretary's staff. We tested a sample of nine procurement requests from the tracking file and found that those dates and actions which were documented were accurate, and many of those which were not documented could be tracked to a manually maintained procurement logging system in the Building Energy Office.

The Assistant Secretary's staff said that its own tracking system (started in May 1983) does not show the problems mentioned above but shows that the Assistant Secretary's staff processed requests rapidly in June and July. We did not review this tracking system in detail because (1) the Assistant Secretary's staff did not inform us as to its existence until after we had completed our review and (2) it was not in a format that presented procurements in a manner that could be readily tracked by actions and dates. However, we did note that the authorization rate of Building Energy Office funds for May (51 percent) had increased to nearly 76 percent in June. (See app. II.)

#### Residential Conservation Service

As a result of the 1978 National Energy Conservation Policy Act (Public Law 95-619), DOE established the Residential Conservation Service, a program in the Building Energy Office designed to provide homeowners and others better information on conservation and energy use in various types of buildings. Portions of the program were to be implemented in all States.

Total funds for the program for fiscal year 1983 were \$4.9 million (\$3.4 million in fiscal year 1983 appropriations and \$1.5 million in carry-over funds from 1982). In fiscal year 1983 the Assistant Secretary and his staff reviewed the Residential Conservation Service program and proposed a deferral of \$2.5 million. This deferral has been requested from the Congress because, according to the Assistant Secretary's staff, the funds were not needed to support activities carried out under the program. They said that the DOE statutory obligations, including monitoring, technical assistance, and technical transfer, could be fully supported with the remaining funds. As of August 1, 1983, this deferral was pending before the Congress.

Building Energy Office officials stated that some activities are not being carried out as planned in fiscal year 1983, due to the proposed deferral for the Residential Conservation Service. They said that all research in the area of developing techniques to determine energy use of single family, multifamily, and small commercial buildings was terminated, and many activities associated with the implementation of the Residential Conservation

Service will now take place in fiscal year 1984 rather than fiscal year 1983.

As a result of the proposed deferral, the program seems to be in a turmoil since no one knows whether there will be \$4.9 million or \$2.4 million available. Fiscal year 1983 procurement plans were based on the smaller amount. If funds do suddenly become available, there will necessarily be much last-minute planning to utilize them especially since there is no approved alternative plan for authorizing these Residential Conservation Service funds. The Assistant Secretary's staff said that there "are no good legitimate ways to spend the money" while, on the other hand, program managers have developed their own plans for the \$2.5 million. At our request, the Building Energy Office provided the following statement concerning these plans.

"Plans for use of the \$2.5M if the deferral is rejected by Congress includes use of \$0.9M for regulation development activities and \$1.6M for research to support the [Residential Conservation Service/Commercial and Apartment Conservation Service] programs. The research will include individual retrofit measures for single family residences, apartments, and commercial buildings; assessments of their impact on energy use and utility peak loads; study of the effect of energy retrofits on the efficiency of [heating, ventilation, and air conditioning] systems; development of specifications and cost estimates for renewable energy retrofits; balance point research; and expansion of the building energy retrofit data base."

HAS THE ASSISTANT SECRETARY'S APPROVAL PROCESS TO DATE RESULTED IN SIGNIFICANT REDUCTIONS IN THE AMOUNTS PLANNED TO BE AUTHORIZED? IF SO, WHAT ACTIONS HAS DOE TAKEN OR DOES IT PLAN TO TAKE TO USE THESE FUNDS BEFORE THE CLOSE OF THE FISCAL YEAR?

It appears that for the Assistant Secretary's programs in general, most of the fiscal year 1983 funds will be authorized by the end of the year. Appendix II shows that 94 percent of total funds for all programs was authorized by June 1983, and the Assistant Secretary's staff stated that they expect to authorize the remaining funds by the end of the fiscal year, excluding the \$2.5 million deferral for the Residential Conservation Service. Programs administered by the Building Energy Office had the lowest authorization rate of any under the Assistant Secretary, only 76 percent had been authorized by June 1983. The Assistant Secretary's staff stated that all remaining funds for the Building Energy Office, excluding the \$2.5 million deferral, will be authorized by the year's end.

The Assistant Secretary during fiscal year 1983 did not plan to authorize all funds appropriated for his conservation and renewable energy programs. During his procurement request approval process, \$5.5 million was proposed for deferral for programs under the Building Energy Office--\$3 million for Technology and Consumer Products and \$2.5 million for Residential Conservation Service. The Congress disapproved the \$3 million deferral and, based on an alternative plan that had been formulated, these funds were authorized within a week after the denial. As stated before, the \$2.5 million proposed deferral was still pending before the Congress.

In addition, we noted that the Assistant Secretary's authorization of funds does not necessarily mean such funds would be released for carrying out program activities. For example, at the Oak Ridge Operations Office we found that funds had been committed to a particular budget and reporting number, but the Operations Office had been given no authority by the Assistant Secretary to make these funds available for use by the Oak Ridge National Laboratory or other contractors. In other words, these funds had been authorized by the Assistant Secretary and were being stored by the Operations Office under an account identified as "Available not Authorized." As of the end of May 1983, there were funds under five budget and reporting numbers (two of which were from the Building Energy Office) stored in this account totaling over \$560,000, of which \$160,000 had been there for over a year.

We also found that the Assistant Secretary and his staff were putting conditional terms in letters authorizing National Laboratories to use program funds. The conditional terms in effect state that funds which have been authorized by the Assistant Secretary cannot be used until some other action is accomplished. For example, actions required in May 1983 for an Oak Ridge National Laboratory \$100,000 Residential Conservation Service program included the following:

"The expenditure of any significant amount of these authorized funds (more than 10 percent) is conditioned on the approval of a specific task plan by the Director, Office of Building Energy [Research and Development], Headquarters."

Actions required in July 1983 for the Lawrence Berkeley Laboratory to use \$630,000 to continue the Building Envelope and Ventilation Program included:

"These additional funds are not to be committed by [Lawrence Berkeley Laboratory] prior to receipt of written approval by DOE Headquarters of detailed work plans for specific research projects."

Assistant Secretary officials stated that setting such conditions was, in their view, a good management practice. Laboratory officials stated that these conditions have been made as late in the year as July, which is too late in the fiscal year to be working out procurement details, especially in light of delays already occurring in the procurement request approval process.

HOW HAVE DELAYS IN PROCUREMENT REQUESTS AFFECTED THE OPERATION OF CONSERVATION AND SOLAR ENERGY PROGRAMS, PARTICULARLY AT THE NATIONAL LABORATORIES? FOR EXAMPLE, HAVE CONTRACTORS BEEN FORCED TO LAY OFF EMPLOYEES, SLOW DOWN, OR TERMINATE PROGRAMS?

Oak Ridge National Laboratory, Lawrence Berkeley Laboratory, the Solar Energy Research Institute, and the National Bureau of Standards were concerned about procurement request processing delays and the negative impact of these delays on the programs they were carrying out for the Building Energy Office. Although these institutions were also concerned about the negative impacts on employment, only one stated that it has actually laid-off employees due to the delays. Additionally, officials from the institutions believed that the Assistant Secretary's review process, accompanied by poor communications with his staff, have set in motion a host of uncertainties about the future of the institutions' research roles.

Impact of delays on programs

Officials from the institutions complained about not being provided the necessary and expected research funds in a timely manner to accomplish work for the Building Energy Office. Examples officials from the institutions cited were as follows.

- The Lawrence Berkeley Laboratory contract with DOE has a clause which states that DOE is to provide, at all times, sufficient funds to support contract operations at a level authorized by the DOE for a period of not less than 90 days. Laboratory officials said these funds, called "Goods and Services on Order," are to pay for termination costs if a program is canceled and are in addition to funds used to carry out day-to-day program operations. For fiscal year 1983, funds available for "Goods and Services on Order" were \$2.9 million. According to laboratory officials, during the first 9 months of fiscal year 1983 the laboratory had to draw on these funds 8 of those months in order to continue its operations in the conservation area; by May the laboratory spent over \$1.4 million of these funds in order to "stay alive." Laboratory officials stated that this occurred because processing of procurement requests, even for modifications of ongoing programs, had been slowed down by the Assistant Secretary's staff.



- At the Oak Ridge National Laboratory, \$3 million was not being made available for an ongoing program--Building Equipment Research. The funding decision was apparently being held up by the Assistant Secretary's staff. This delay prompted the Oak Ridge Operations Office to send a letter dated March 30, 1983, to the Assistant Secretary saying "Delays in receipt of FY 1983 funding for this program necessitate early action by Headquarters if discontinuation of this program is to be avoided." Funds were subsequently provided for this program in April at the same time the Laboratory Director went to DOE/headquarters to talk to the Assistant Secretary about releasing the funds.
- The Solar Energy Research Institute has a Residential Conservation Service program which had experienced few funding problems until fiscal year 1983 when it began to be funded on a month-to-month basis. The program began experiencing funding difficulties and Institute officials asked for an emergency allocation to be available by April 1, 1983. Funds did not arrive until April 28, 1983, and were so conditional that part of the funds were still not available to the Institute in mid-August.
- The National Bureau of Standards had difficulty in obtaining funds under an interagency agreement with DOE/Oak Ridge National Laboratory for a research program on Building Thermal Envelope Systems and Insulating Materials. Bureau of Standards officials discussed the funding with the Assistant Secretary who told the officials not to stop work on any programs. In March 1983, the funding for three of the four tasks in the program was exhausted. The Bureau of Standards sent the Oak Ridge Operations Office a telegram stating that the Bureau had temporarily terminated two of the tasks and reassigned personnel. The Bureau proposed using funds from one task to continue work on that task and one of the other three tasks. Oak Ridge did not respond to the telegram until June. Bureau of Standards officials stated that, at this time, they were notified that the Assistant Secretary's staff had approved an agreement to provide funding through September 1983 and that Oak Ridge would no longer be involved in this agreement.

Laboratory Directors from both Oak Ridge and Lawrence Berkeley and the Director from the National Bureau of Standards Center for Building Technology each had a meeting with the Assistant Secretary to discuss these situations. Officials from both laboratories stated that it is unusual for their Director to have to make a trip to Washington, D.C., to ask the Assistant Secretary for funds for ongoing programs in the middle of the fiscal year. Bureau of Standards officials said that it is unusual for the Center's Director to be involved in any way; these

situations are usually taken care of at a staff level much lower than the Director.

The research institutions complained that delays in obtaining authorization for procurement requests results in (1) stopping research in "mid-stream" and, in turn, (2) inefficient use of research funds. For example, Oak Ridge and Lawrence Berkeley officials discussed the following with us. Oak Ridge Laboratory officials stated that termination of the Residential Conservation Service program could result in eight useful reports not being published--total additional costs of the reports would be about \$72,000. Lawrence Berkeley Laboratory officials stated that in three areas (Energy Performance of Buildings, Ventilation and Indoor Air Quality, and Building Energy Simulation) work is being phased out or reduced to a point where certain basic information on saving energy in buildings will not be available.

#### Impact of delays on employment

The four research institutions have operated during fiscal year 1983 under a threat of employee termination; however, only the Solar Energy Research Institute advised us that it has had to lay off employees.

- In April 1983 the Solar Energy Research Institute gave termination notices to employees carrying out work in the Residential Conservation Service program. Since then three full-time employees have been laid off due to lack of funding, and officials said that there continues to be uncertainty about future employment.
- According to Lawrence Berkeley Laboratory officials, because of funding delays, some 12 planned hires are being held in abeyance which in effect reduces the research below the originally planned level of effort.
- Oak Ridge National Laboratory officials stated that decisions to reduce funding in the Residential Conservation Service program would require reassignment or termination of approximately six technical staff members and discontinued support for three subcontractor staff members who are experts in building conservation work and the Residential Conservation Service program. Officials also stated that this would have an irreversible impact on experienced personnel available to DOE. Such personnel, they added, may be needed on relatively short notice in the event the \$2.5 million in DOE's proposed deferral for the Residential Conservation Service program is reinstated by the Congress. Also, according to Oak Ridge officials, if lay-offs occur there may be no experienced staff at Oak Ridge in the spring of 1984 to conduct reviews of State plans for implementing the program.

--The Bureau of Standards reassigned several people as discussed above and said that, without better financial support for mutually agreed upon work next year, employees will have to be laid off.

### Other impacts

Most research officials we talked with agreed that it is not unusual for DOE and researchers to disagree or for DOE to cut back on programs or redirect them. With adequate communications these potential problems can be minimized. However, in fiscal year 1983 these disagreements, cutbacks, and redirections, according to researchers, have been excessive in the Building Energy Office programs and frustrating to those doing the research. Many of the above problems and the procurement delays in general are related to the poor communications which exist at all levels from the Assistant Secretary down to the Building Energy Office program managers and researchers.

Laboratory officials stated that many unusual events had occurred in fiscal year 1983. For example, Lawrence Berkeley Laboratory officials said that they did not know until May 1983 that their funding level for Building Energy programs would be \$7 million instead of \$8 million and that it was unusual to have \$1 million in question over halfway through the fiscal year.

Officials from three of the four research institutions stated that it was not normal, nor was it good business practice, to continue programs on verbal instructions from the Assistant Secretary or his staff as they have done in fiscal year 1983 rather than on written instructions. Researchers are also not clear on who is providing instructions and directions for their work. Where program managers previously directed their work, the Assistant Secretary's staff is now directing it; where they knew in advance that certain programs would be conducted with a set amount of funds, now the programs are uncertain and funding sporadic; where they could plan for next year's work by the summer of the previous year, now they have no idea what to expect in many areas for next year; where they used to communicate with program managers directly, now they write to the Assistant Secretary and receive no response or delayed responses. These uncertainties in turn add to administrative time and frustration for those carrying out the programs and create program instability.

With better communications at all levels, researchers claim that stability could be improved. Lawrence Berkeley Laboratory officials said that with more stability their funds for "Goods and Services on Order" could be reserved for intended purposes and would not have to be used for other ongoing projects where the Assistant Secretary and his staff have delayed funding. Procurement delays, according to Oak Ridge officials, are not a problem if communications are set up and are reliable so that they

know the funds are coming. However, unless communication is improved and indecision is eliminated, problems will continue.

The Assistant Secretary's staff stated that communications at all levels has improved over the past few months; laboratory officials agreed but said that improvements had not been substantial. Most laboratory officials saw little hope that changes will occur and were predicting that procurement delays and program indecision will again occur in fiscal year 1984.

#### AGENCY COMMENTS

A draft of this report was provided to DOE for review and comment. DOE did not provide written comments in time to be included in this report.

COMPARISON OF FISCAL YEARS 1982 AND 1983 AUTHORIZATIONS FOR PROCUREMENT BY BUDGET AND REPORTING NUMBERS FOR DOE ASSISTANT SECRETARY FOR CONSERVATION AND RENEWABLE ENERGY BASED ON PERCENTAGE OF TOTAL OBLIGATIONAL AUTHORITY

Budget and reporting title	Percentage authorized by the Assistant Secretary's office											
	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983	1982	1983
Building Systems	17.2	20.1	30.3	26.8	82.0	26.8	82.0	26.8	82.0	26.8	82.0	26.8
Application Standards	5.3	69.2	65.3	69.2	67.3	69.0	68.8	69.0	67.3	69.0	68.8	69.0
Community Systems	1.0	2.4	26.2	47.8	26.0	47.8	26.0	47.8	26.0	47.8	26.0	47.8
Technology and Consumer Products	9.7	16.2	9.7	20.1	88.4	25.0	89.0	57.2	91.2	63.7	92.1	94.8
Analysts and Technology	16.1	20.7	16.1	20.8	93.2	26.2	93.2	41.6	93.2	41.6	97.0	88.3
Transfer Conservation	16.1	20.7	16.1	20.8	93.2	26.2	93.2	41.6	93.2	41.6	97.0	88.3
Residential Conservation	16.1	20.7	16.1	20.8	93.2	26.2	93.2	41.6	93.2	41.6	97.0	88.3
Federal Energy Management	21.9	29.1	54.5	70.0	86.9	82.7	72.7	84.5	73.0	84.5	83.0	84.5
Building Energy Funds	9.7	17.3	18.2	24.3	64.3	27.3	72.4	43.6	78.0	50.7	80.3	75.9
Power Delivery	34.2	21.4	34.2	37.7	69.7	84.6	73.2	88.7	82.6	88.3	94.3	97.3
System Architecture and Integration	11.5	29.5	13.1	29.5	60.1	43.5	61.1	47.0	73.6	57.1	88.9	83.8
Generation and Storage	0.0	97.9	0.0	97.9	42.9	97.9	100.0	47.3	81.8	87.7	90.4	90.4
Battery Storage	19.9	25.1	20.2	57.4	44.0	81.8	44.3	81.8	47.3	87.7	90.4	90.4
Thermal and Mechanical Storage	38.1	39.3	42.0	67.3	77.2	91.0	86.4	92.3	90.5	93.0	94.9	97.4
Energy Conversion Technology	17.0	23.7	62.4	57.8	83.1	73.1	84.1	85.6	96.8	98.1	96.8	98.1
Energy Systems Funds	24.2	26.1	30.9	50.8	61.1	79.4	63.8	83.9	71.9	88.3	93.0	94.1
Waste Energy Reduction	21.1	21.2	28.8	24.0	44.4	35.0	55.4	57.6	78.1	69.6	80.3	77.7
Industrial Process Efficiency	60.2	18.9	61.9	32.5	57.2	36.0	57.2	36.0	69.9	88.3	70.8	96.8
Industrial Cogeneration	4.4	6.0	17.7	6.0	20.3	11.1	45.6	82.0	48.3	88.3	87.5	97.0
Implementation and Commercialization	0.0	8.7	0.0	9.6	39.5	12.7	41.2	38.2	39.2	94.1	50.3	94.1
Percentage of total Industrial Programs Funds authorized	14.4	28.9	21.6	30.6	35.2	35.0	47.0	64.6	56.1	83.0	69.0	88.3
Geopressured Resources	2.6	6.6	3.8	16.2	82.1	16.2	82.1	16.2	82.5	16.2	83.4	16.3
Geothermal Technology Development	19.8	77.9	70.9	87.0	90.7	88.4	96.0	89.4	96.3	98.1	99.7	99.7
Hydrothermal Energy Resources	0.0	0.0	0.0	18.9	22.7	18.4	22.7	20.1	81.1	19.8	81.1	61.6
Hydrothermal Commercialization	0.0	0.0	0.0	0.0	37.3	5.8	37.4	7.4	37.4	39.5	40.9	39.3
Geothermal Resources Development	0.0	4.3	0.0	4.3	0.0	4.3	0.0	4.3	0.0	4.3	0.0	93.5
Small Scale Hydrothermal Development	3.0	95.6	20.1	96.2	112.1	96.2	112.1	150.8	112.1	77.0	112.1	77.0
Fast-Track Studies Loan Program	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Urban Waste Biomass	3.9	18.3	18.1	18.3	68.8	60.1	91.0	84.4	91.0	84.9	97.9	96.1
Percentage of total Renewable Technologies funds authorized	11.2	23.0	44.7	32.1	72.4	47.7	75.2	78.9	81.1	80.3	84.1	89.7
International Solar	0.0	41.0	97.5	95.0	100.0	95.0	100.0	95.0	100.0	95.0	100.0	95.0
Solar Program Support	61.6	61.1	29.6	68.3	29.6	68.3	73.4	68.3	73.4	68.3	73.4	68.3
Solar Reserve	15.6	24.6	26.2	24.6	36.9	40.0	48.5	40.3	50.3	40.3	56.2	40.3
Percentage of total Solar Electric Funds authorized	21.8	19.2	43.1	20.9	88.9	76.0	91.0	82.0	94.9	92.7	99.3	94.8
Active	4.2	10.2	26.0	67.5	40.9	68.5	75.4	86.5	82.9	98.8	93.5	93.5
Passive	9.4	16.0	35.9	76.1	35.9	89.5	79.1	90.1	82.9	98.8	93.5	93.5
Thermal	1.0	12.9	14.4	92.8	77.1	97.3	90.6	97.9	90.5	100.1	99.5	99.5
Solar Thermal Systems	0.0	100.0	49.9	110.3	99.8	110.8	99.8	113.2	99.8	113.2	99.5	99.5
Percentage of total Solar Heat Funds authorized	2.7	11.6	51.6	17.6	89.7	69.7	95.2	88.3	98.6	91.0	101.4	91.8
Hospital and School Grant Program	2.7	1.7	3.6	2.0	6.5	2.1	6.6	26.7	76.6	96.5	77.5	97.2
Other Local Governments	0.0	27.6	0.0	27.6	0.0	24.3	0.0	24.3	69.5	24.3	69.5	24.3
Medicaid Assistance Program	0.0	63.9	57.9	85.6	57.9	86.3	58.2	91.6	91.6	91.6	98.9	98.9
State Energy Conservation Program	0.0	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3	98.3
Supplemental ETO4	0.0	1.0	0.0	4.6	0.0	4.6	0.0	4.6	0.0	4.6	0.0	4.6
Appropriate Technology	0.0	87.3	9.9	87.3	41.1	86.0	57.8	84.4	57.8	119.8	58.2	120.9
Energy Conservation Service	19.9	26.8	37.2	52.5	42.1	55.0	47.3	55.0	52.2	72.8	77.2	72.8
Inventions Program	19.9	26.8	37.2	52.5	42.1	55.0	47.3	55.0	52.2	72.8	77.2	72.8
State and Local Assistance	14.0	1.4	51.0	36.8	64.7	37.5	65.5	52.2	87.0	97.2	87.9	98.0
Vehicle Population R&D	26.0	33.0	90.8	95.1	90.9	95.5	95.1	99.0	98.2	99.1	99.9	99.6
Alternative Fuels Utilization	20.4	28.9	40.8	33.4	45.6	48.7	65.1	69.0	66.9	61.0	71.8	90.0
Electric Hybrid Vehicle Program	25.8	32.4	30.6	45.8	82.3	90.1	92.2	92.6	92.2	92.6	114.8	96.8
Advanced Materials Development	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Transportation Utilization Program	31.3	5.8	31.3	5.8	31.3	13.4	0.0	13.4	0.0	13.6	0.0	13.6
Vehicle and Engine Funds authorized	25.5	31.3	66.8	78.2	83.4	91.6	90.0	95.3	92.0	95.4	100.8	97.8
Conservation and Renewable Energy Funds authorized	15.1	15.0	43.5	38.1	69.8	53.1	73.0	67.9	83.7	80.9	88.7	94.4

# Total Obligational Authority listed on schedules provided by the Assistant Secretary's office.

# Budget and reporting number not listed on schedules provided by the Assistant Secretary's office.

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