

DOE F 1325.B  
(08-93)

United States Government

Department of Energy

# memorandum

DATE:

MAY 02 2003

Audit Report No.: OAS-L-03-17



REPLY TO

ATTN OF:

IG-34 (A03PR013)

SUBJECT:

Audit of the Distributed Energy Resources Program

TO:

Assistant Secretary for Energy Efficiency and Renewable Energy, EE-1

The purpose of this report is to inform you of the results of our review of the Distributed Energy Resource program (DER). This review was initiated in February 2003 and fieldwork was conducted through March 2003 at Department Headquarters. The review methodology is described in the attachment to this report.

## INTRODUCTION AND OBJECTIVE

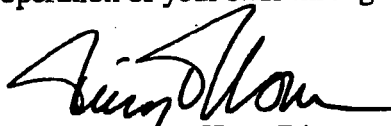
The Distributed Energy and Electricity Reliability program's mission is to strengthen America's electric energy infrastructure and provide utilities and consumers with a greater array of energy efficient technology choices for the generation, transmission, distribution, storage, and demand management of electric power and thermal energy. The DER portion of the program received appropriations totaling about \$55 million in Fiscal Year (FY) 2003. Our objective was to determine whether the DER program has established long-term goals and implemented a spending strategy to meet its goals.

## CONCLUSIONS AND OBSERVATIONS

We have decided to close this audit because management has recently changed its long-term program goals. Previously, the program's goal was to deploy distributed generation technologies. Specifically, the program indicated that its investment in distributed energy generation (e.g., microturbines, reciprocating engines, and cooling, heating and power technologies) would provide nearly 20 percent of the nation's new power by 2020. However, a peer review questioned whether this goal could be achieved. Furthermore, program officials recognized a disparity between the deployment goal and the program's funding focus on improving technology efficiencies, reducing operating cost and environmental improvements. These issues were addressed in FY 2003 when the program modified its goals to address the shift in focus. Because the extent of these changes, we believe it is too early to measure the program's strategy towards achieving the new long-term goals. We may revisit this issue in the future.

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Since no recommendations are being made in this letter report, a formal response is not required. We appreciated the cooperation of your staff throughout the audit.



Rickey R. Hass, Director  
Science, Energy, Technology,  
and Financial Audits  
Office of Audit Services  
Office of Inspector General

**Attachment**

cc: Director, Office of the Distributed Energy and Electricity Reliability Program, EE-2D  
Audit Liaison, Energy Efficiency and Renewable Energy, EE-03  
Team Leader, Audit Liaison, ME-2.1

## Attachment

**METHODOLOGY**

To accomplish the audit objective, we:

- Compared program goals to regulations to identify any areas of non-compliance;
- Held discussions with Department Headquarters personnel to determine the program's goals and how they were formulated, barriers to implementation, applicable laws and regulations, and how funding is prioritized and disseminated;
- Analyzed data from Energy Information Administration to determine total power usage in the nation, what part of total power usage came from distributed energy, and projections of power usage for distributed energy;
- Held discussions with Federal Energy Regulatory Commission officials to determine the viability of implementing the Distributed Energy Resource program (DER) on electric grids and the impact of recent regulatory efforts on the deployment of DER technologies;
- Held discussions with Edison Electric Institute, National Rural Electric Cooperative Association, National Association of Regulatory Utility Commissioners, National Association of State Energy Officials, American Council for an Energy-Efficient Economy, Northeast Midwest Institute, and Resource Dynamics Corporation officials to identify the barriers to successful implementation of distributed energy technologies according to each organization; and,
- Held discussions with U.S. Environmental Protection Agency and U.S. Department of Housing and Urban Development officials to determine what types of DER-related programs exist in other federal agencies.

We conducted the audit according to generally accepted Government auditing standards for performance audits and included tests for internal controls and with laws and regulations to the extent necessary to satisfy the audit objective. Accordingly, we assessed the Department's internal controls with regard to the DER program. We did not use computer processed data during this review. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of the audit. Management waived the exit conference.

# memorandum

DATE: MAY 29 2003

REPLY TO  
ATTN OF: IG-34 (A03PR013)

SUBJECT: Final Report Package for Audit of the "Distributed Energy Resources Program"  
Audit Report Number: OAS-L-03-17

TO: Frederick D. Doggett, Deputy Assistant Inspector General for Audit Services

Attached is the required final report package on the subject audit. The pertinent details are:

1. Actual Staff days: 90

Actual Elapsed days: 67

2. Names of OIG and/or contractor audit staff:

Assistant Director: George W. Collard  
Team Leader: Robert W. Lewandowski  
Auditor-in-Charge: James M. Powell  
Audit Staff: Matthew J. Pollock

3. Coordination with Investigations and Inspections:

Investigations: Brenda L. Froberg - March 7, 2003

Inspections: Henry C. Minner - March 11, 2003



Rickey R. Hass, Director  
Science, Energy, Technology,  
and Financial Audits  
Office of Audit Services  
Office of Inspector General

Attachments:

1. Final Report (3)
2. Monetary Impact Report
3. Audit Project Summary Report
4. Audit Database Information Sheet

**MONETARY IMPACT OF REPORT NO.: OAS-L-03-17**

- 1. Title of Audit: "Distributed Energy Resources Program"
- 2. Division: Science, Energy, Technology, and Financial Audits
- 3. Project No.: A03PR013
- 4. Type of Audit:

Financial: \_\_\_\_\_ Performance: X  
 Financial Statement \_\_\_\_\_ Economy and Efficiency X  
 Financial Related \_\_\_\_\_ Program Results \_\_\_\_\_  
 Other (specify type): \_\_\_\_\_

5.

FINDING		BETTER USED				QUESTIONED COSTS			MGT. POSITION	POTENTIAL BUDGET IMPACT
(A)	(B) Title	(C) One Time	Recurring			(G) Questioned Portion	(H) Unsupported Portion	(I) Total	(J) C=Concur N=Noncon U=Undec	(K) Y=Yes N=No
			(D) Amount Per Year	(E) No. Yrs.	(F) Total Amount					
	None	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTALS--ALL FINDINGS										

6. Remarks: There is no current monetary impact or potential future savings.

7. Contractor: \_\_\_\_\_  
 8. Contract No.: \_\_\_\_\_  
 9. Task Order No.: \_\_\_\_\_

10. Approvals:  
 Division Director & Date [Signature] 5/29/03  
 Technical Advisor & Date [Signature] 6/3/03

Office of the Inspector General (OIG)  
Audit Project Office Summary (APS)

Report run on: May 15, 2003 2:40 PM

Audit#: A03PR013 Ofc: PRA Title: DISTRIBUTED ENERGY RESOURCES PROGRAM

\*\*\*\* Milestones \*\*\*\*

	Profile	Planned End of Survey	Revised	Actual
Entrance Conference:	01-AUG-03	24-FEB-03	24-FEB-03	24-FEB-03
Survey Completed:			07-MAY-03	
Field Work Complete:				
Draft Report Issued:		30-JUL-03		
Exit Conference:				
Completed with Report:	28-JAN-04			02-MAY-03 ( R )
-----Elapsed Days	180			67
-----Staff Days:	0	0		90
Date Suspended:		Date Terminated:		
Date Reactivated:		Date Cancelled:		
DaysSuspended(Cur/Tot):	0 (	) Report Number:	OAS-L-03-17	
Rpt Title: DISTRIBUTED ENERGY RESOURCES PROGRAM				

\*\*\*\* Audit Codes and Personnel \*\*\*\*

Aud Type:	Not Found	AD:	376	LEWANDOWSKI
Category:	OTH OTHER	AIC:	675	POWELL
DOE-Org:	Not Found	HDQ-Mon:	421	SCHULMAN
Maj Iss:	103 PERFORMANCE MANAGEME	ARM:	459	COLLARD
Site:	SSA SINGLE-SITE AUDIT			

\*\*\*\* Task Information \*\*\*\*

Task No:	
Task Order Dt:	CO Tech. Rep:
Orig Auth Hrs:	Orig Auth Costs:
Current Auth:	Current Auth Cost:
Tot Actl IPR Hr:	Tot Actl Cost:

\*\*\*\* Time Charges \*\*\*\*

<u>Emp/Cont Name</u>	<u>Numdays</u>	<u>Last Date</u>
WILSON, A	0.4	03-MAY-03
LEWANDOWSKI, R	6.9	03-MAY-03
POWELL, J	33.1	03-MAY-03
POLLOCK, M	49.3	03-MAY-03
<b>Total:</b>	<b>89.7</b>	

**AUDIT DATABASE INFORMATION SHEET**

1. Project No.: A03PR013
2. Title of Audit: Distributed Energy Resources Program
3. Report No./Date: OAS-L-03-17/May 2, 2003
4. Management Challenge Area: Performance Management
5. Presidential Mgmt Initiative: R&D Investment
6. Secretary Priority/Initiative: Energy Resources
7. Program Code: EE
8. Location/Sites: SSA/HER
9. Finding Summary: No findings. This was a letter report.
10. Keywords: 

distributed generation	Distributed Energy Resource
Energy Efficiency	DEER
DER	EE
microturbine	reciprocating engine
CHP	cooling, heating and power