



U.S. Department of Energy  
Office of Inspector General  
Office of Audits and Inspections

# Audit Report

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## The Department of Energy's Loan Guarantee Program for Clean Energy Technologies

DOE/IG-0849

March 2011



**Department of Energy**  
Washington, DC 20585

March 3, 2011

MEMORANDUM FOR THE SECRETARY

FROM:   
Gregory H. Friedman  
Inspector General

SUBJECT: INFORMATION: Audit Report on "The Department of Energy's Loan Guarantee Program for Clean Energy Technologies"

BACKGROUND

The goal of the Department of Energy's Loan Guarantee Program (Program), as defined in the Energy Policy Act of 2005, is to provide Federal support, in the form of loan guarantees, to spur commercial investments in clean energy projects that use innovative technologies. The American Recovery and Reinvestment Act of 2009 amended the Energy Policy Act and temporarily expanded the Program by providing loan guarantees for renewable energy systems, electric transmission systems and leading edge biofuels projects. The Department estimates that the Program, one of the largest of its kind in U.S. history, can guarantee up to \$71 billion in loans.

The Department instituted a due diligence process (See Attachment 1) to examine the viability and legitimacy of potential projects and project borrowers, fully identify technical and financial risks, and evaluate and propose risk mitigation strategies. As part of this process, the Department develops a risk rating for each loan guarantee application based on an assessment of the technical and financial risks associated with the project and borrower. According to Program officials, the due diligence process was modeled after proven systems used by other Federal agencies with similar programs.

As of December 2010, the Program had guaranteed loans valued at over \$3.9 billion to 8 recipients and had conditional commitments for an additional \$12 billion in loan guarantees. We initiated this audit to determine whether the Department had implemented effective safeguards to manage the Government's risk of loss and to identify opportunities to improve loan processing activities.

RESULTS OF AUDIT

We found that the Loan Guarantee Program could not always readily demonstrate, through systematically organized records, including contemporaneous notes, how it resolved or mitigated relevant risks prior to granting loan guarantees. Despite a number of positive actions on the part of Program officials, we noted that:

- Decision documents summarizing the results of the due diligence and risk assessment processes did not always describe actions officials told us they took to address, mitigate and/or resolve risks; and,

- Loan origination files, which according to Federal regulations are to contain key documentation to support actions taken as part of the loan guarantee process, were not maintained in the Program's official electronic information repository. Of the 18 projects with loan guarantees or conditional commitments, there was no information archived in the electronic system for 3 of the projects. The system included only limited data for 12 additional projects. Documentation for the remaining three projects was more robust, but did not include all of the information necessary to describe the actions taken to evaluate the applicant's credit worthiness and/or the risks associated with the projects.

As noted in the Program's established policies and procedures, records describing the due diligence and risk assessment process are pivotal pieces of information used to approve or disapprove loan guarantees. Our review of current Federal policy promulgated by the U.S. Department of Treasury (Treasury) and the Office of Management and Budget (OMB) and general business practices, specifically concerning the all important issues of accountability and transparency, confirmed that the maintenance of complete and accurate records, including contemporaneous decision notes, is vitally important to: (a) protect the legal and financial rights of the Government over the life of the loan guarantees; (b) ensure continuity and consistency in the administration of the Program; (c) assist current managers and their successors in making informed decisions; and, (d) provide a reliable source for information needed to respond to inquiries from the OMB, the Congress, financial management agencies, and other oversight bodies.

#### Records Management System

We found that the Program had not developed and implemented a comprehensive records management system. Although the Program's website referenced Federal requirements for loan documentation, the Program had not adopted a records management system that would have imposed structure, consistency and discipline in the development and retention of loan documentation. Symptomatic of this, Senior Investment Officers responsible for many aspects of the loan guarantee process told us that they were unaware of the Program's policy regarding the types of documentation that needed to be kept and, therefore, did not always record the results of analyses conducted during the due diligence process. As previously noted, while the Department had decided to use a formal electronic information system designed to store important loan records, that system had not been completely populated by Program officials. As a result, it did not provide what was intended to be a centralized, accessible and effective source of critically important Program information.

Our examination also revealed that the Program had not taken action to ensure that records created by consultants and independent advisors were delivered to the Department and incorporated in its electronic record keeping system. These records are important in that they describe the action taken by the independent advisors and contractors to review and analyze the technical, financial and marketing conditions of applicants' projects. We were told by Program officials that such reviews were critical elements in the loan decision-making process. Yet, we found that the agreements finalizing these relationships did not include records retention clauses that are frequently employed when contractors perform work of this kind for the Federal Government. The agreements we reviewed for independent advisor and contractor services did not require that records created be submitted to the Department or retained for a specified period

of time. Based on our information requests, Program officials, after significant effort, were able to collect and assemble a number of contractor-generated documents related to the loan guarantees we reviewed.

### Addressing Record Keeping Issues

We believe that a sound records management regime can be executed without compromising the desire to award loan guarantees expeditiously. This message has been communicated on at least two occasions to Program officials. Notably, despite previous recommendations by the Office of Inspector General and the U.S. Government Accountability Office, actions implemented by the Department to address records management findings were not completely effective. Specifically, we reported in *The Department of Energy's Loan Guarantee Program for Innovative Energy Technologies* (DOE/IG-0812, February 2009) that the Program had not fully documented or recorded the results of reviews and had not always included relevant documentation and analyses in its management information system. In that report, we recommended that the Program document material aspects of loan application reviews in the official electronic project files. Management concurred, reported that it had resolved the issue, and subsequently closed the audit recommendation. The results of the current audit, however, revealed that corrective actions taken did not fully address these records management issues.

A senior official acknowledged that the Program had not always documented the disposition of risks but explained that the Program had accepted the risks, resolved them through an informal process or considered them immaterial. Officials also told us that Program decisions are based on the professional judgment of experienced staff, many of which resulted from informal deliberations or were documented in e-mails that were not maintained. These assertions notwithstanding, as pointed out in OMB and Treasury instructions, the lack of contemporaneous records may adversely affect the Department's ability to manage loans. It also leaves the Department open to criticism that it may have exposed the taxpayers to unacceptable risks associated with these borrowers. Finally, should individual loan guarantees be subject to legal action, the availability of a complete record is an invaluable tool in supporting the Government's position.

On a positive note, as our audit findings evolved and management was made aware of the status of our review, Program officials acknowledged the need to develop and implement a sound records management system to enhance the transparency of the decision-making process and to update loan related policies and procedures. For example, we were told by a senior official that, as a result of our audit, a comprehensive review of the Program's policies and procedures was underway. Also, the Program had recently retained a Chief Operating Officer. The Chief Operating Officer told us that one of his key objectives was to develop a records management program. Finally, senior Program officials also indicated that they had initiated procedures to document the disposition and closure of all risks identified during the due diligence process.

### Other Needed Program Enhancements

Our review identified other areas of needed improvement in the Department's management of the Program. Specifically, the Department had not:

- Updated its policies and procedures to include improvements in its loan processing to provide for the consistent use of lessons learned; and,

- Provided financial oversight of its independent advisors to ensure the allowability and reasonableness of costs. Improving reviews of billings in this area could help prevent reimbursements of several examples of inappropriate charges for items such as task order overruns and unauthorized first class air travel that we observed during our testing.

These matters were discussed in depth with Program officials during the course of the audit.

### Path Forward

Balancing the goal of operating an estimated \$71 billion loan guarantee portfolio in innovative technologies that are inherently risky with the Energy Policy Act's mandate to ensure a reasonable prospect of repayment is challenging. To this end, Program officials noted that they had taken a number of relevant actions such as increasing the number of staff supporting the Program and implementing an online portal for submission of loan applications to improve loan processing. However, we believe that additional improvements are both possible and practical, and have made several recommendations designed to help ensure that loan making decisions are transparent. Specifically, we recommend that the Executive Director, Loan Programs Office, take the following actions designed to help ensure success of the Program:

1. Update existing or create new policies and procedures to:
  - a. Establish requirements for a records management system;
  - b. Establish a formal lessons learned process to include loan review process improvements to date; and,
  - c. Ensure that roles and responsibilities, including those for reviewing independent advisors costs, are clearly defined.
2. Revisit loan guarantees that have been closed or that are in conditional commitment to ensure that documentation supporting decisions made during the due diligence process is adequately accounted for and maintained in a central location.

### MANAGEMENT REACTION

Loan Guarantee Program officials commented extensively on the audit findings during the field work and draft report stages of the process, expressing their disagreement with some of the report findings. However, in comments which appeared somewhat inconsistent with this position, management indicated that, prior to the audit, it had begun efforts to improve program operations including actions directly related to these findings.

Management took exception to our finding that records for risk identification and disposition were not fully maintained. Management indicated that the audit did not reflect the nature of due diligence and the negotiation of loan guarantee transactions. Additionally, officials noted that they did not believe that the disposition of transaction risks considered to be immaterial requires

extensive records or a discussion in a credit paper. Management also noted that the report did not question the fundamental quality of the underwriting process and stressed that it had developed a rigorous and extensive due diligence process that included numerous safeguards to ensure that taxpayer funds are protected. Further, management disagreed with the assertion that the results of analyses conducted during the due diligence process were not always recorded. Management indicated that each loan guarantee transaction is supported by an array of records that document and describe the underwriting of the transaction. However, management recognized our concern that their current approach to documentation may leave the Department open to criticism.

## AUDITOR RESPONSE

To be clear, we did not assert that loan-making decisions were flawed. We did, however, conclude that the Program record keeping and documentation policies and practices did not meet standards for Federal financial programs and, as such, did not provide sufficient transparency and accountability, especially given that the Department may guarantee up to an estimated \$71 billion in loans. While we recognize that there may be professional disagreements as to the materiality, relevance and sufficiency of documentation, simply put, in our opinion, the readily available record supporting the due diligence process was not sufficiently organized and maintained. Further, the many separate, inconsistent and ineffective maintenance and archiving practices we observed during our review of thousands of documents on separate servers, individual computers and retrieved from contractor files, demonstrated the importance of adopting a structured and disciplined approach to records management.

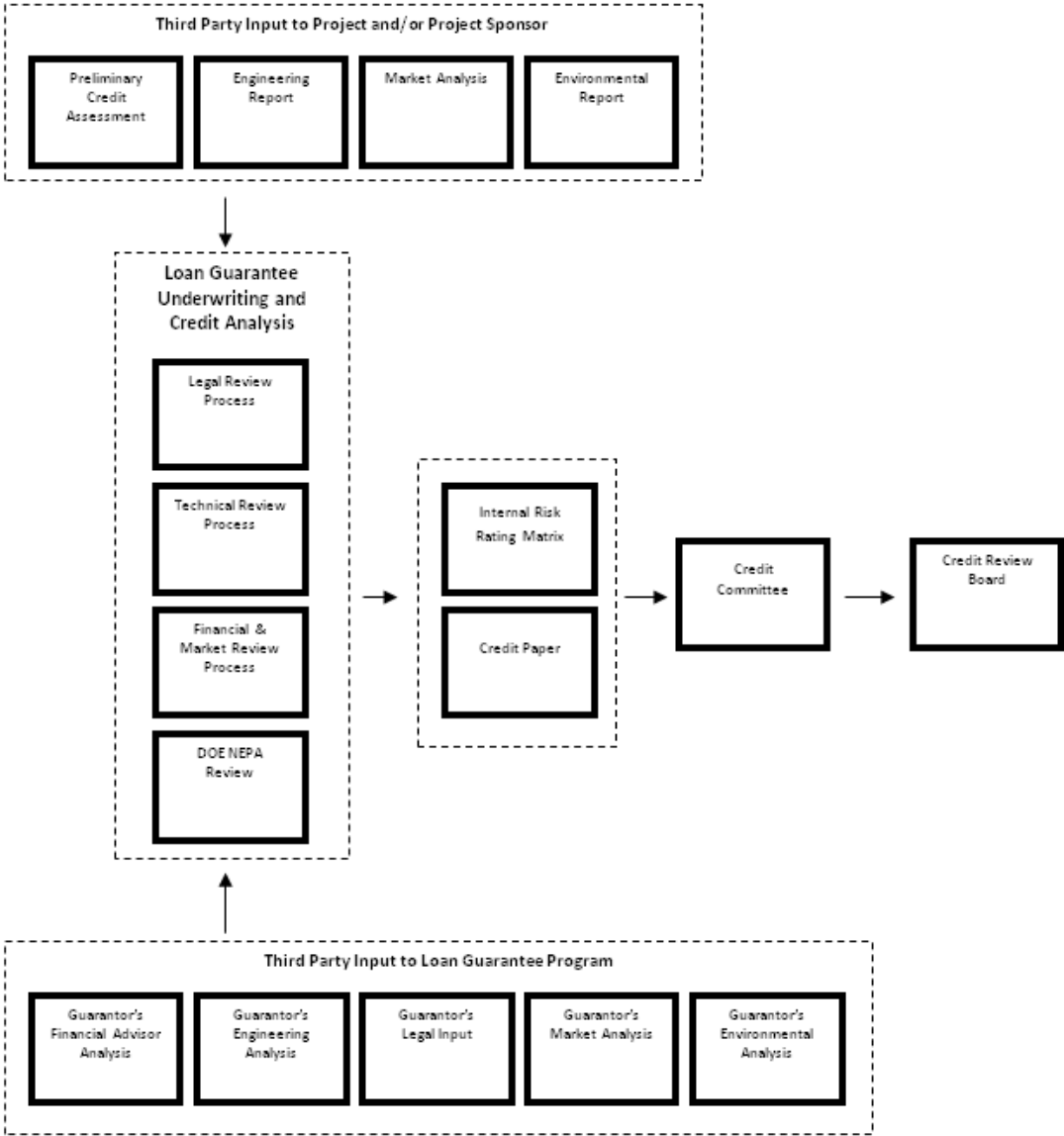
As noted in our report, the audit did capture actions taken prior to and during audit field work to address certain programmatic issues. We found, however, that management had not focused on the important task of ensuring that loan program records were properly archived and accessible. In fact, senior Program officials told us that they were not aware of the fact that the electronic records system was not fully populated. Our examination also revealed that Senior Investment Officers were uncertain about what records needed to be maintained as part of the official due diligence process. Finally, Program officials acknowledged that because of the pressures associated with granting loan guarantees in a timely manner, they had not focused sufficient attention on documentation issues.

Management's response did not directly address all of our recommendations. However, management indicated that it planned to improve its records management system and review its policies and procedures. We are encouraged that actions are being taken to address the issues discussed in our report. While disagreements remain, it appears that management's planned corrective actions are responsive to our recommendations. Management's comments are included in Attachment 4.

### Attachments

cc: Deputy Secretary  
Acting Under Secretary of Energy  
Associate Deputy Secretary  
Chief of Staff  
Chief Financial Officer  
Executive Director, Loan Programs Office

**DUE DILIGENCE REVIEW PROCESS**



Source: Title XVII of the Energy Policy Act of 2005 Loan Guarantee Program Credit Policies and Procedures, March 2009

## **OBJECTIVE, SCOPE AND METHODOLOGY**

### **OBJECTIVE**

The objective of our audit was to determine whether the Department of Energy (Department) had implemented effective safeguards to manage the Government's risk of loss and to identify opportunities to improve loan processing activities.

### **SCOPE**

We conducted the audit from August 2010 to January 2011, at Department Headquarters in Washington, DC. In addition, we conducted an on-site visit to one of the loan guarantee recipient's place of operation.

### **METHODOLOGY**

To accomplish the audit objective, we:

- Reviewed applicable Federal and Departmental regulations related to the Loan Guarantee Program (Program);
- Reviewed loan guarantee documentation maintained in the Program's official data repository and shared network drive, as well as documentation maintained on individuals' hard drives;
- Analyzed initial project risks identified by applicants and/or third-party advisors and compared the risks to risks identified in Credit Papers to determine whether all risks had been addressed;
- Interviewed Program officials to gain an understanding of the loan guarantee review process and to determine the level of interaction with independent advisors;
- Interviewed Senior Investment Officers and performed a walkthrough of documentation for selected loan guarantees to determine the types of risk assessments performed and how identified risks were addressed;
- Reviewed statements of work for independent advisors to determine the scope of work to be performed;
- Analyzed invoices submitted for services provided by independent advisors for one loan guarantee project;



- Interviewed a loan guarantee applicant to determine impediments in the application and due diligence processes; and,
- Interviewed an independent advisor to determine their responsibilities in support of the Program.

We conducted this performance audit in accordance with generally accepted Government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objective. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. Accordingly, the audit included reviews of Department and regulatory policies and procedures related to the Department's management of the Program. We assessed performance measures in accordance with the *Government Performance and Results Act of 1993* and concluded that the Department had established performance measures related to the Program. Because our review was limited, it would not necessarily have disclosed all internal control deficiencies that may have existed at the time of our audit. We conducted an assessment of computer-processed data relevant to our audit objective and found it to be sufficiently reliable.

The exit conference was held with management on February 22, 2011.

## **PRIOR REPORTS**

### **Office of Inspector General**

- *The Department of Energy's Loan Guarantee Program for Innovative Energy Technologies*, (DOE/IG-0812, February 2009). This report found that while the Loan Guarantee Program (Program) had developed and implemented some key programmatic safeguards, the Program had not completed a control structure necessary to award loan guarantees and to monitor associated projects. Specifically, the Program had not finalized policies and procedures, formally documented portions of its applicant reviews, and formalized procedures for disbursing loan proceeds.
- *Loan Guarantees for Innovative Energy Technologies*, (DOE/IG-0777, September 2007). This report concluded that there were a number of steps that should have been taken to foster the success of the Program. These included finalizing a staffing plan, developing risk mitigation strategies, implementing and executing a monitoring system, and promulgating procedures relating to loan defaults.

### **Government Accountability Office**

- *Further Actions Are Needed to Improve DOE's Ability to Evaluate and Implement the Loan Guarantee Program*, (GAO-10-627, July 2010). This report found that performance measures developed for the Program did not reflect the full scope of program activities. In addition, the report noted that the Program had treated applicants inconsistently and lacked mechanisms to identify and address their concerns.
- *New Loan Guarantee Program Should Complete Activities Necessary for Effective and Accountable Program Management*, (GAO-08-750, July 2008). This report concluded that the Department of Energy was not well positioned to manage the Program effectively and maintain accountability because it had not completed a number of key management and internal control activities. The report noted that the Program had not sufficiently determined the resources it would need or completed detailed policies, criteria, and procedures for evaluating applications, identifying eligible lenders, monitoring loans and lenders, estimating program costs, or accounting for the program. Also, the Program had not established key measures to use in evaluating program progress.



**Department of Energy**  
Washington, DC 20585

**MEMORANDUM FOR**

Rickey R. Hass  
Deputy Inspector General  
for Audits and Inspections  
Office of Inspector General

**FROM:**

*JS* Jonathan M. Silver *JS* 2/28  
Executive Director  
Loan Programs Office

**SUBJECT:**

Office of Inspector General Report  
The Department of Energy's Loan Guarantee Program for  
Clean Energy Technologies (Project Number A10RA017)

This memorandum constitutes the response of the Loan Programs Office (LPO) to the Office of the Inspector General's (OIG) draft audit report on, "The Department of Energy's Loan Guarantee Program for Clean Energy Technologies".

We appreciate the OIG's acknowledgement of the challenges associated with underwriting the deployment of the innovative technologies needed to advance the Nation's economic recovery and to develop our energy infrastructure. The OIG conducted an extensive audit and, although the audit team noted some opportunities to improve LPO's record keeping, it is important to note that the report's findings do not implicate, or question, the fundamental quality of the underwriting of the transactions. The LPO undertakes rigorous and extensive due diligence to review applications for loan guarantees, from receipt to close. This includes numerous mechanisms and safeguards that are in place to protect taxpayer funds and, specifically, to meet the statutory mandate to ensure a reasonable prospect of repayment by the borrower.

While the audit findings are overly broad, we agree with the conclusion that the LPO must continue to improve its formal record keeping. In fact, it should be noted that LPO was *already* undertaking efforts not captured by the OIG to improve program operations at the time of the audit, including defining requirements for more robust records management, integrating lessons learned into underwriting activities, and hiring key personnel to bolster management operations. Despite our general agreement with the OIG's recommendations, LPO *disagrees with some of the findings and assertions made in the OIG's audit report. Specifically, the LPO takes issue with the following:*



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**Records for risk identification and disposition were not fully maintained.** The audit does not reflect the nature of due diligence and the negotiation of sophisticated, complex, and large project finance and corporate finance loan guarantee transactions. A typical loan guarantee transaction requires thousands of hours of work from not only financiers, but also lawyers, engineers, and technologists from the private sector, the Department of Energy, and other officials engaged in the inter-agency review process. Loan guarantee negotiations and due diligence, by their very nature, are extremely fluid. One of the products of the due diligence process is the “credit paper” – a document LPO prepares to present the transaction in a succinct, but nonetheless comprehensive, manner to senior decision-makers for their approval. These documents include a presentation of the material risks to the transaction, but, in the interest of brevity do not, by definition, include every conceivable but minor issue.

We do not believe that the disposition of transaction risks considered by professional opinion to be immaterial or trivial requires extensive records and contemporaneous notes, or discussion in a credit paper. To call for such an audit trail does not reflect the operational realities for LPO and would be overburdensome, with little value accruing. However, LPO recognizes OIG’s concern that this approach might leave the Department of Energy open to criticism and commits to reviewing its policies and procedures again in this regard.

The OIG asserts that LPO has made unsatisfactory use of its electronic records system. We recognize that we have outgrown our original document and electronic records management framework. The LPO initially adopted eDocs, the Department of Energy’s corporate records management system, as its preferred system of record. User adoption was poor, primarily due to the awkward user interface and the degree to which it did not meet the needs of LPO. LPO is now developing a tool that will meet its needs, an effort led by LPO’s new Chief Operating Officer and the Management Information team. This process will include consolidating and centralizing LPO records. We believe this effort will address the concerns raised by the OIG during the course of its audit.

**The results of analyses conducted during the due diligence process are not always recorded.** We disagree with this assertion. Every loan guarantee transaction presented for approval to the Department of Energy’s Credit Committee and Credit Review Board is supported by an array of records that document and describe the underwriting of the transaction. This includes, but is not limited to;

- The proposed Term Sheet, setting out the detailed terms and conditions of the transaction;
- The Credit Paper, providing the detailed qualification and justification of the project, including a description of the project, the technology used, sources and uses of funds, off-take arrangements and/or market projections, the mitigation and disposition of material and salient risks, and summary opinions from advisors;
- Relevant reports and studies from outside subject matter experts, usually providing market and product analysis and technical feasibility studies from our independent engineers;
- A summary presentation of the transaction to be made by the LPO Senior Investment Officer; and
- Other relevant information, such as legal opinions for example, pertinent to the decision to approve (or deny) the transaction.

To close, we would like to thank the OIG staff for their work. The LPO is committed to doing its work in an efficient and effective manner, and will look to continually improve program operations.

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