



U.S. Department of Energy
Office of Inspector General
Office of Audit Services

Special Report

Selected Department of Energy Program Efforts to Implement the American Recovery and Reinvestment Act



OAS-RA-10-03


December 2009



Department of Energy
Washington, DC 20585

December 7, 2009

MEMORANDUM FOR THE SECRETARY

FROM: 
Gregory H. Friedman
Inspector General

SUBJECT: INFORMATION: Special Report on "Selected Department of Energy Program Efforts to Implement the American Recovery And Reinvestment Act"

BACKGROUND

The American Recovery and Reinvestment Act of 2009 (Recovery Act) was enacted on February 17, 2009, to jumpstart the economy by creating or saving millions of jobs, spurring technological advances in health and science, and investing in the Nation's energy future. The Department of Energy received over \$32.7 billion in Recovery Act funding for various science, energy, and environmental programs and initiatives. As of November 2009, the Department had obligated \$18.3 billion of the Recovery Act funding, but only \$1.4 billion had been spent. The Department's Offices of Energy Efficiency and Renewable Energy, Fossil Energy, Environmental Management, Science, and Electricity Delivery and Energy Reliability received the majority of funding allocated to the Department, about \$32.3 billion.

Obligating these funds by the end of Fiscal Year 2010, as required by the Recovery Act, and overseeing their effective use in succeeding years, represents a massive workload increase for the Department's programs. The effort to date has strained existing resources. As has been widely acknowledged, any effort to disburse massive additional funding and to expeditiously initiate and complete projects increases the risk of fraud, waste and abuse. It is, therefore, important for the Department's program offices to assess and mitigate these risks to the maximum extent practicable. In this light, we initiated this review as an initial step in the Office of Inspector General's charge to determine whether the Department's major program offices had developed an effective approach for identifying and mitigating risks related to achieving the goals and objectives of the Recovery Act.

RESULTS OF REVIEW

The Department's program offices included in our review identified risks and planned mitigation strategies that, if successfully implemented and executed, should help achieve the goals and objectives of the Recovery Act. While each office identified risks unique to its respective areas of responsibility, there were a number of risks shared in common. These included the mechanical and substantive requirements related to the award and

distribution of funds; program and project performance monitoring; and, program and project execution activities. In particular, the offices self-identified common risks such as:

- The inability to award and distribute funds in a timely manner to achieve the goals of the Recovery Act;
- The sufficiency of monitoring procedures and resources to, among other things, prevent and detect fraud, waste and abuse throughout the performance period of financial assistance awards and contracts; and,
- The inherent cost, schedule and performance risks associated with first-of-a-kind, innovative research and demonstration projects.

Our review confirmed that the Department had begun to implement a number of strategies designed to mitigate these and other program-specific risks. Our testing, however, identified challenges to the effective implementation of these mitigation strategies that need to be addressed if the Department is to meet the goals and objectives established by the Recovery Act. At the time of our review:

- Program staffing resources, critical to the success of all other mitigation strategies, remained inadequate both in numbers and qualifications (certifications and training) for positions in procurement and acquisition, project management, and monitoring and oversight functions;
- Performance measures for achieving Recovery Act goals such as distributing funds in an expeditious manner had not always been established and included in performance plans, and, in financial assistance and contract documents; and,
- Programs had not consistently demonstrated that previously reported deficiencies, identified through audits, inspections, investigations and other oversight activities, had been considered in designing mitigation strategies for the Recovery Act related risks. As we noted in our *Special Report on the American Recovery and Reinvestment Act at the Department of Energy* (OAS-RA-09-01, March 2009) these sorts of deficiencies, which were described in the March 2009 report, had adversely impacted the success of earlier Departmental projects. We concluded that consideration of these previously encountered internal control weaknesses was essential if the Department was to avoid the same or similar problems in executing the Recovery Act programs/projects.

During the course of our audit we identified other internal control weakness indicators. When brought to their attention by the Office of Inspector General audit staff, program officials acted promptly to address these problems by modifying or improving their risk mitigation strategies. For instance, we found that the Office of Energy Efficiency and Renewable Energy, responsible for \$16.8 billion in Recovery Act program activities, took steps to strengthen its merit review process to avoid potential conflict of interest concerns. Similarly, the Office of Electricity Delivery and Energy Reliability told us that

it had revised and improved its plans to address problems with the insufficient number of merit reviewers needed to evaluate funding proposals. Furthermore, Fossil Energy officials stated that, as a result of our audit, they included additional controls in the funding opportunity announcements and improved the quality of Recovery Act plans and performance metrics. Because officials reacted promptly to the concerns we identified, we did not separately report on issues such as these.

The Department has made significant progress in identifying programmatic risks and preparing mitigation plans which should help increase the likelihood that the Recovery Act goals and objectives will be met. In this regard, the Department established the Office of Risk Management within the Office of the Chief Financial Officer and issued Department-wide guidance for risk management efforts. That Office has worked with program officials to refine program plans and risk mitigation strategies. Additionally, the Department improved information technology systems for tracking financial information and project performance.

While significant advances were noted, the Department's role in strengthening the U.S. economy through its management of billions of dollars in Recovery Act expenditures makes its efforts to manage risk a high priority. To assist in this effort, our report includes a number of recommended actions that the Department should take to address the challenges that remain.

MANAGEMENT REACTION

Management generally concurred with the report's recommendations and agreed to take corrective action. In certain instances, management indicated that actions necessary to satisfy the intent of our recommendations have been completed. Management comments are included in Appendix 3.

Attachment

cc: Deputy Secretary
 Under Secretary of Energy
 Under Secretary for Science
 Assistant Secretary for Energy Efficiency and Renewable Energy
 Assistant Secretary for Environmental Management
 Assistant Secretary for Fossil Energy
 Acting Assistant Secretary for Electricity Delivery and Energy Reliability
 Director, Office of Science
 Chief of Staff
 Chief Financial Officer
 Chief Information Officer

SPECIAL REPORT ON SELECTED DEPARTMENT OF ENERGY PROGRAM EFFORTS TO IMPLEMENT THE AMERICAN RECOVERY AND REINVESTMENT ACT

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RECOVERY ACT IMPLEMENTATION EFFORTS

Background and Results

As part of the American Recovery and Reinvestment Act of 2009 (Recovery Act), the Department of Energy (Department) was appropriated more than \$32.7 billion to support a number of major initiatives and an additional \$4 billion to support its Loan Guarantee Program. Per the Recovery Act, this funding must be obligated by September 30, 2010. In addition, appropriations law requires the expenditure of the funds no later than September 30, 2015. The vast majority of these funds (\$32.3 billion) were provided to five of the Department's major programs. A significant portion of the remaining funding will be provided to existing facility contractors to accelerate ongoing or planned projects. Remaining funds will be distributed through financial assistance agreements and grants to various recipients. In particular, the Offices of:

- Energy Efficiency and Renewable Energy (EERE) received \$16.8 billion to support various programs such as improving the energy efficiency of low-income housing through the Weatherization Assistance Program, conducting energy research and development projects related to energy efficiency and conservation strategies and programs, and studying the use of alternative fuels for vehicles;
- Environmental Management (EM) received \$6 billion that will be used to clean up contamination resulting from Cold War manufacturing activities at 17 sites across the Department complex. The Department anticipates that most Recovery Act-funded work at these sites will be completed by September 30, 2011;
- Electricity Delivery and Energy Reliability (OE) was provided \$4.5 billion to support modernization of the Nation's electrical grid to a Smart Grid that uses technologies to enable communication and overall reliability;
- Fossil Energy received \$3.4 billion to stimulate private sector investment in and accelerate the deployment of Carbon Capture and Storage technology for coal-based energy systems and industrial processes; and,
- Science was provided \$1.6 billion to further enhance ongoing research efforts, to include the addition of 16

Energy Frontier Research Centers. The intent of these Centers is to accelerate basic research to address the Nation's energy challenges.

In March 2009, the Office of Inspector General issued a *Special Report on The American Recovery and Reinvestment Act at the Department of Energy* (OAS-RA-09-01, March 2009) that highlighted specific risk areas discovered during our prior reviews. The report also suggested actions that the Department should consider during Recovery Act planning and program execution to help reduce the likelihood that the same or similar problems would recur. Since the issuance of that report, we have initiated a series of reviews of the programs just identified to evaluate the effectiveness of the Department's efforts to carry out its Recovery Act responsibilities. During the course of our evaluations, we met with program officials and reviewed documentation to determine how each of the programs intended to mitigate known risk areas.

We also identified a number of continuing challenges that the programs must address if they are to effectively meet the goals of the Recovery Act. We recognize that each of the programs face risks and challenges specific to their areas of responsibility. However, our body of work identified a number of issues related to the award and distribution of funds, program and project performance monitoring, and program and project execution activities that, in our judgment, appear to be common to many of the Department's major Recovery Act programs. To that end, we have recommended a number of actions that the Department should take to help overcome these challenges.

Award and Distribution of Recovery Act Funds

The significant increase in funding combined with statutory time constraints for obligation and expenditure have stressed existing mechanisms to award and distribute funds. The Department initiated action to identify the risks associated with, and the steps necessary to, successfully achieve the objectives of the Recovery Act. In general, the Department's efforts in this area were extensive. However, our review identified certain remaining challenges related to awarding and distributing Recovery Act funds that should be addressed.

Recovery Act Funds Award and Distribution Risks

The influx of significant new funding presents a number of challenges and risks to each of the programs reviewed related to awarding projects and distributing funds to the various recipients. In particular, as a result of the Recovery Act and related Office of Management and Budget (OMB) mandates, the programs reviewed reported the following risks:

- Recovery Act funds may not be awarded and distributed to recipients in a timely manner. For instance, in the short time frames mandated under the Recovery Act, EERE must select and award projects that have the greatest chance of meeting programmatic and Recovery Act objectives, including multiple projects with thousands of recipients under the Energy Efficiency and Conservation Block Grants Program. EERE officials noted the awards process for the Block Grant Program was a new initiative that may be challenging to implement because there is no existing infrastructure. Both Fossil Energy and OE officials also identified risks or concerns related to ensuring that financial assistance awards are completely obligated within the coming fiscal year.
- Funds may not be expended by the recipients in a timely manner or satisfy the goals and objectives of the Recovery Act. As an example, EERE officials indicated that previous non-Recovery Act awards had not been fully utilized by Weatherization Assistance recipients and, in fact, some organizations had significant unexpended balances from prior years. In addition to the risk of timely expenditures, concerns about controls over the propriety of expenditures exist. An official with Science's Integrated Support Center at Chicago (Chicago), Office of Acquisitions and Assistance (Office of Acquisitions), expressed concern about the level of documentation required for payments made to financial assistance recipients, since their use of the Automated Standard Application for Payments System (ASAP) does not require recipients to provide detailed support.
- Available staffing levels may not be adequate to award contracts, develop financial assistance tools, and disburse funds to award recipients in a timely

manner. Certain programs reviewed noted that they would need additional staff to handle the increased number of awards and disbursements. Science, EERE, and OE officials disclosed that staffing was a significant issue that needed to be addressed. For example, program officials determined that staffing levels for the Chicago Office of Acquisitions were inadequate and noted that maintaining sufficient trained acquisition personnel is a challenge Department-wide. Similarly, EERE and OE officials disclosed that they lacked sufficient staff in various award and funds obligation functions.

- Requirements of the Recovery Act may not be incorporated into recipient contracts and other financial assistance tools. Science officials commented that one of the program's major risks in implementing the Recovery Act is ensuring that new requirements are included in management and operating contracts, financial assistance agreements, and related subcontracts.

Risk Mitigation Strategies

As part of a comprehensive strategy to address Recovery Act requirements and related risks, each of the programs reviewed had taken a number of steps to help alleviate known risks, as necessary. For example:

- Additional guidance and contracting terms were developed and implemented related to awarding funds for Recovery Act activities. To assist each of the Department's programs, the Office of Procurement and Assistance Management (Procurement) developed guidance on funding acquisition and financial assistance activities with Recovery Act appropriations to help maximize the effective use and management of those funds. Procurement also developed special contractual terms and conditions for programs to use to ensure project compliance with new Recovery Act requirements. Science modified the terms and conditions of its financial assistance agreements and management and operating contracts to include Recovery Act requirements and stipulated that these requirements be included in proposed flow-down clauses for subcontracts. To help meet Recovery Act requirements for timely execution of

projects, EERE specified in funding opportunity announcements that grantees would have only limited timeframes to complete expenditure of Recovery Act funds.

- Several programs developed acquisition and/or funding strategies to decrease the risk of awarding and distributing funds to recipients that could not successfully complete projects. In particular, Fossil Energy divided the application process for one of its major projects into two steps. The first step was development of a seven-month feasibility and project definition phase that will allow the Department to evaluate and select final awardees. The second part of this acquisition process will be the selection of awardees and progression into the design, construction and operation phase. Fossil Energy officials also noted that they hope to utilize lessons learned to streamline the negotiation process, with a goal of reducing the negotiation time for Clean Coal Power Initiative cooperative agreement awards from 14 to 7 months. In addition, EERE plans to restrict the release of funding pending a recipient's demonstration of satisfactory progress toward achieving Recovery Act goals and objectives.
- A number of the programs reviewed had taken steps to increase or reallocate staffing levels to support the award and distribution of Recovery Act funds. In particular, EERE officials disclosed that they intend to either subcontract Recovery Act work or hire procurement staff in an attempt to award and distribute funding as quickly as possible. In addition, Science used contractor personnel and reassigned staff at its Chicago Office of Acquisitions to assist with the negotiation, execution, administration, and oversight of Recovery Act awards. EERE reported that it had met its goals for awarding and obligating funds in a timely manner by using procurement staff from other programs and rehiring federal annuitants on a temporary basis.
- Certain programs had modified language for awarding Recovery Act projects to help ensure that funds are awarded and distributed to meet Recovery Act goals and objectives. For example, OE plans to

apply merit criteria to awards that measure the extent to which projects will advance Smart Grid functionality.

Remaining Award and Distribution Challenges

Although programs had taken, and continue to take, actions to address many potential issues related to awarding and distributing Recovery Act funds, a significant challenge remains that requires resolution to help satisfy Recovery Act goals and objectives. In particular, while we recognize that it takes time to address inadequate staffing levels, we believe that this will continue to be a challenge encountered by most programs in the foreseeable future. For example, Science stated it had analyzed staffing levels and released administrative funds to help address staffing issues, but the Chicago Office of Acquisitions was still in the process of hiring additional contractor personnel needed to perform the anticipated work. Further, Chicago had not taken steps to improve the accountability of financial assistance recipients using ASAP, such as considering placing holds on portions of the funding until high risk recipients demonstrate they are accounting for their funds satisfactorily.

Recommended Actions

As part of its ongoing and planned activities related to awarding and distributing Recovery Act funds, the Department should:

1. Continue to focus management attention on hiring qualified personnel to meet program needs and consider reallocating staff where appropriate; and,
2. Develop controls to improve accountability of financial assistance recipients using ASAP.

The actions described above, when completed, should help the Department address the risks associated with awarding and distributing funds to meet Recovery Act goals and objectives.

Program and Project Performance Monitoring

With the unprecedented number of contracts, grants, and cooperative agreements for new projects that the Department has awarded and will continue to award, performance

monitoring and oversight will be a key element in determining the ultimate success or failure of the Recovery Act. As has been consistently demonstrated in the past, project management weaknesses across the Department represent risks that, if not mitigated, are likely to increase the potential for fraud, waste and abuse of Recovery Act funds. Planning activities for all five programs included in our review identified risks related to managing and monitoring Recovery Act projects. While we observed that efforts had been made to develop and implement mitigation strategies to address these risks, challenges remain that could impact the effectiveness of Recovery Act program and project performance monitoring.

Performance Monitoring and Oversight Risks

Subsequent to awarding Recovery Act projects and distributing the appropriate funds, the Department's focus will need to shift to providing effective performance monitoring and oversight throughout the entire performance period to ensure the goals of the Recovery Act are met. However, due to the large number of new projects and the additional requirements placed on the use of Recovery Act funds, program offices will need to address a number of risks and challenges associated with their monitoring and oversight activities. Based on our discussions with program officials and examination of risk assessments, we noted that programs are likely to face certain common or shared risks in this area. For example, significant risks identified included:

- Existing or yet to be developed performance monitoring procedures and controls may not be sufficient to ensure that the requirements of the Recovery Act are met. EERE, in particular, noted that, based on monitoring reports and past experience, certain Weatherization grantees may not have adequate internal controls, reducing the likelihood of preventing or detecting fraud, waste, or abuse.
- As with the funds award and distribution process, staffing may not be adequate to meet the program monitoring and oversight demands created by the Recovery Act. Specifically, all five programs reviewed initially reported that they did not have sufficient resources to provide adequate monitoring

and oversight of Recovery Act projects. In one instance, EERE determined that staffing was its most significant risk to the successful implementation of Recovery Act activities. EM sites identified a shortage of facility representatives, the primary points of contact with contractors for operational and safety oversight, as a vulnerability. Furthermore, OE specified that the large volume of work generated by the Recovery Act will result in the need for additional staff to review invoices and quarterly reports for compliance with Recovery Act requirements.

Program Monitoring Mitigation Strategies

Recognizing the importance of effectively monitoring Recovery Act projects, the program offices reviewed had developed and, in some cases, had initiated specific actions to mitigate the risks identified. In particular:

- Each program had made at least some progress in evaluating and/or revising its existing monitoring and oversight procedures for Recovery Act projects. For example, EERE revised its monitoring procedures to address the risks and requirements associated with the implementation of the Recovery Act. In addition, EERE initiated reviews of certain states' readiness to meet Recovery Act requirements. Furthermore, Science was developing monitoring and oversight plans for its activities at Oak Ridge and Chicago. OE also indicated that it had reviewed the National Energy Technology Laboratory's (NETL) – one of its Project Management Centers – existing project management procedures and intended to use them to meet their Recovery Act objectives. In addition, EM had revised its process for managing Recovery Act cleanup projects that fall under the jurisdiction of the Department's Order 413.3A, *Program and Project Management for the Acquisition of Capital Assets*.
- All programs reviewed had initiated action to address monitoring and oversight staffing shortages, including hiring additional personnel or reassigning staff to higher priority tasks. For example, programs were actively involved in the process of

recruiting and hiring candidates to fill both temporary and permanent positions. In particular, EERE plans to significantly increase its monitoring staff by hiring additional Federal and contractor workers. Additionally, EERE requested and was granted direct hire authority in an effort to fill critical field staffing needs quickly. EERE senior management reported receiving weekly updates on the progress of meeting hiring goals. In addition, EM and Science both plan to reassign current staff to assist with the increased oversight responsibility. For example, EM has assigned certified Federal project directors to all Recovery Act capital asset projects commensurate with the level of project they are assigned to manage. In some cases, EM has assigned a Level 4 project director until a new project director can complete certification requirements. Science released Recovery Act funds to the Chicago Office of Acquisitions to hire additional contractors to assist in monitoring financial assistance agreements. OE hired additional contractor staff to conduct an initial review of invoices and to make recommendations to invoice approving officials. Furthermore, Fossil Energy's project management documents identified plans to address its projected funding shortfall of \$45 million for Recovery Act program direction in out-year budget requests.

- Programs had also developed plans to train staff to perform monitoring and oversight activities for Recovery Act projects. For instance, OE reported that it had coordinated with other Departmental elements to increase the number of contracting officer representative training classes and that the number of certified personnel had increased as a result of this effort. OE also noted that a project management handbook and standard operating procedures to guide program and project managers are under development. Also, EERE indicated that it had held several training classes for grant reviewers, NEPA and procurement staff, and project officers. Further, many of the programs disclosed that they had also taken advantage of the many fraud awareness briefings (84 briefings reaching over 8,000 individuals) provided by the Office of Inspector General. These briefings serve to educate

individuals on specific vulnerabilities within the program, contracts, and grants they oversee. Additionally, they alert recipients to the Office of Inspector General's oversight role, and expose them to potential adverse ramifications of the misuse of Recovery Act funds.

Remaining Performance Monitoring Challenges

While current mitigation strategies should help improve the programs' oversight and monitoring of Recovery Act projects, additional challenges will need to be addressed to increase the likelihood that goals and objectives of the Recovery Act will ultimately be achieved. In particular:

- In accordance with OMB guidance, the Department must take steps to implement additional oversight controls to mitigate the unique risks of the Recovery Act. However, we noted that several of the programs had not yet completed this action. For instance, Science had developed plans to review contractor compliance with Recovery Act provisions, but had not finalized the extent of grantee and financial assistance awardee reviews at Chicago to ensure that new priorities such as transparency are achieved.
- While there has been progress related to this issue, the programs reviewed still face daunting challenges in recruiting adequate monitoring and oversight staff. For example, EERE is still in the process of filling positions at the NETL and Golden Field Office. Thus far, using direct hire authority, EERE reported that it had filled roughly half of the 288 positions authorized. We also noted that OE had only hired about 36 percent of needed employees identified on its Recovery Act staffing plan. Staffing shortages could also be exacerbated by the loss of the authority to retain temporary hires beyond 2011, even though the projects will likely extend well beyond that date. In addition, Science stated that it had analyzed staffing levels, but was still in the process of securing personnel to perform anticipated monitoring and oversight of Recovery Act projects. Finally, while Fossil Energy had

identified its staffing needs, officials noted that the program is short of the funding needed to ensure adequate oversight between 2011 and 2015.

- In our opinion, and as emphasized in OMB guidance, performance measures designed to aid in monitoring accomplishments specific to Recovery Act activities, such as distributing Recovery Act funds in an expeditious manner, need to be included as modifications to the Performance Evaluation Measurement Plans in existing management and operating contracts. In this way, contractors' performance on Recovery Act projects may directly affect the fees they can earn. Science officials noted that the existing performance measures contained in the management and operating contracts are broad enough to encompass Recovery Act projects and that performance measures from the individual Recovery Act projects would be considered during the evaluations of the contractors' performance. Science also stated that the focus on project performance and transparency to the public is achieved by weekly contractor reports on obligations and costs and regular reports to Recovery.gov. However, we concluded that reliance on the existing performance measures in the Performance Evaluation Measurement Plans may not provide the focus needed for Recovery Act project performance and transparency to the public. Furthermore, we noted similar difficulties at the Department level in our recent report on *The Department of Energy's Efforts to Meet Accountability and Performance Reporting Objectives of the American Recovery and Reinvestment Act* (OAS-RA-09-04, September 2009). Many of the performance measures reviewed were either not quantifiable or did not always correspond to Recovery Act requirements.

Recommended Actions

To prepare for the unprecedented level of oversight needed to effectively monitor the vast number of Recovery Act projects, the Department and its program directors, as appropriate, should take steps to:

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3. Revise financial assistance guidelines for monitoring awards or create new guidelines that incorporate additional Recovery Act requirements for monitoring and oversight;
 4. Perform staffing reviews, as necessary, to determine the level of personnel needed to oversee Recovery Act projects, prioritize and reallocate staff as appropriate, and continue to provide senior management attention to hiring needs;
 5. Ensure that new staff hires are adequately trained in monitoring procedures; and,
 6. If programs have not already done so, incorporate performance measures related to the goals of the Recovery Act into the Performance Evaluation Measurement Plans included in facility operations contracts and ensure that these measures factor into the performance evaluations of the management and operating contractors.

These recommendations, taken together with planned and ongoing actions, should assist the Department in carrying out its performance monitoring and oversight strategy for Recovery Act activities.

Program and Project Execution

The Recovery Act will provide the Department with over \$36.7 billion of additional funding that must be expended no later than September 30, 2015. While improvements have been made across the Department, projects not achieving their intended objectives within estimated cost, scope, and schedule has been a recurring problem. As noted in our previous reports on management challenges at the Department of Energy, project management weaknesses existed in the management of major projects across the Department. To carry out the programs and projects to the level of accountability and transparency required by the Recovery Act, there are certain barriers and risks that the Department will need to overcome. Although the Department had identified a number of risks and developed various mitigation strategies to address some of these issues, challenges remain that could impact the Department's ability to successfully execute Recovery Act projects.

Project Execution Risks

The number of new projects being initiated by the Department, all in a relatively short timeframe, has created several significant logistical and technical risks which, unless properly managed, may compromise the success of the projects. Based on our discussions with program officials and examination of draft and/or final risk assessments, we determined that programs are likely to face common or shared risks. For example, significant risks identified included:

- Innovative or first-of-a-kind projects carry inherent schedule, cost, and technology risks. Past experience with projects of this nature has shown the potential for cost growth and schedule slippages that are outside the direct control of the Department. Therefore, there is a risk that projects may not be successfully completed before all Recovery Act funds are expended. For example, large scale demonstration programs such as the Clean Coal Power Initiative typically select projects that require more than five years for completion. In addition, program officials noted that in the case of the Smart Grid, there may not be enough specialized equipment and services available to complete demonstration projects.
- Complex coordination and teaming arrangements could negatively impact schedule and completion of Recovery Act projects. Within the Department, for example, EM officials at Oak Ridge noted in their vulnerability assessment that projects must be coordinated with ongoing mission activities to ensure the success of the projects. Specifically, technically challenging projects must be carefully coordinated with the Oak Ridge National Laboratory's (ORNL) base science and energy operations, since many of the projects are located on ORNL's central campus. EM is also funding cleanup work at two National Nuclear Security Administration (NNSA) sites which pose elevated risks, since NNSA contractors cannot be directly managed by EM officials.
- Coordination with project partners who are outside the Department is also critical to success. Fossil

Energy, for example, needs timely access to privately-owned project sites and equipment for the success of Geological Sequestration Site Characterization activities. An inability to gain timely access could cause significant project delays, negatively impact performance, and threaten the ability to expend funds by 2015. In addition, Department teaming arrangements have historically experienced failures due to partner withdrawal. Since 2007 for example, three Clean Coal Power Initiative projects have been cancelled because of a team member's withdrawal from the project. Furthermore, as noted in our *Audit of Selected Energy Efficiency and Renewable Energy Projects* (DOE/IG-0689, May 2005), one geothermal project experienced problems with various partnering arrangements and ultimately failed because of, among other things, a lack of detailed analysis of the partners' resources. Finally, OE disclosed that there may be difficulties in coordinating with various international and state entities specific to interconnection transmission planning.

Program Execution Risk Mitigation Strategies

Although we recognize that much of the funding to support execution of Recovery Act projects has not been expended, we found that certain programs have taken a number of proactive steps to mitigate their known risks related to various issues. Examples of actions taken or planned by programs include:

- Programs had initiated action to help ensure that inherent schedule, cost, and technology risks associated with innovative or first-of-a-kind projects had been addressed. For instance, Fossil Energy intends to ameliorate the inherent risks by closely monitoring performance and distributing Recovery Act funds to the fastest moving projects. In addition, OE and EERE disclosed that they had obtained or plan to require commitment letters from applicants and vendors affirming their ability to supply the necessary equipment and services. EERE officials also noted that they planned to obtain purchase commitments from end users to ensure the availability of customers for the

Advanced Batteries Program. EERE also planned to improve its construction management capabilities to enable better management of the program.

- Certain programs had begun coordination efforts to help ensure the success of Recovery Act projects. For instance, the Department had required commitment letters for its Fossil Energy Geological Sequestration Site Characterization projects from landowners for site access and full disclosure of any known land use issues. In addition, EM had prepared interface documents between programs to alleviate some of the coordination issues. Perhaps most significantly, EM had entered into a formal memorandum of agreement with the NNSA. In the agreement, NNSA concurred with a cooperative arrangement in which EM would monitor and participate in the oversight of the Recovery Act work. NNSA and EM further agreed to use their best efforts to resolve implementation issues and to execute the work efficiently. EM was also placing technical representatives at its Recovery Act sites. Furthermore, OE officials noted that they will facilitate obtaining stakeholder agreements for interconnection transmission planning.
- At least one program had taken action to address certain previously identified weaknesses related to project management. In particular, EM sent several review teams to Los Alamos National Laboratory (LANL) to address performance problems and to ensure that the scope of Recovery Act projects could be completed safely and efficiently. EM officials had been so concerned with the issues identified at the Laboratory that they withheld Recovery Act funds for several months until they were satisfied that LANL would be able to execute the work.

Remaining Program and Project Execution Challenges

Challenges with project execution continue to exist even though the Department had taken a number of positive actions related to this area. These challenges must be addressed to help ensure that the ultimate goals and objectives of the Recovery Act projects are met. In particular:

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- Coordination efforts may not be sufficient to ensure that all involved parties are working toward achieving the required goals and objectives. For example, Fossil Energy's Industrial Carbon Capture and Storage projects can require the collaboration of up to three parties for the successful capture, transport and storage of carbon dioxide. As previously noted, the longevity of the necessary teaming arrangements has been identified as a risk going forward due to historical issues such as partner withdrawal. Although Fossil Energy has implemented additional controls to enhance reviews of teaming arrangements, significant challenges with retaining team members remain. For example, after announcing the Department's intent to build a commercial-scale carbon capture and storage project with the FutureGen Alliance, two FutureGen Alliance members announced they were withdrawing. As a result, the remaining members will either have to find new partners or increase their own project costs. Given the complexity and substantial costs of these projects, business arrangements between teaming partners should be subject to extensive coordination and rigorous Department review.
 - Operational deficiencies previously identified by internal and external entities may not have been adequately considered and/or addressed. Specifically, a number of vulnerability or risk assessments provided to us for review did not affirmatively demonstrate that Science, EERE, and EM had considered deficiencies identified through prior audits. As noted in our report on *The American Recovery and Reinvestment Act at the Department of Energy* (OAS-RA-09-01, March 2009) we believe this to be a critical step in avoiding problems caused by past internal control weaknesses. While documentation supporting this analysis was not included in the original risk assessments we were provided, we noted that recent guidance issued by the Office of the Chief Financial Officer required that programs consider prior weaknesses when planning and carrying out their Recovery Act programs. Although the five programs provided updated risk assessments, the assessments were not consistent in the extent to

which they demonstrated that previous deficiencies had been considered. Fossil Energy, for example, indicated that it had reviewed 22 prior audit reports for identified deficiencies, while some of EM's assessments did not mention prior deficiencies.

Recommended Actions

To meet the requirements mandated by the Recovery Act and to address the risks to project execution identified in our report, the Department should:

7. Ensure that safeguards are sufficient to enhance the likelihood of successful teaming arrangements for cooperative agreements; and,
8. Ensure that all operational and oversight deficiencies previously identified through audits are considered as programs refine their risk assessment and mitigation plans and carry out project execution activities.

In summary, the Department has made substantial progress in identifying risks and preparing mitigation plans to help increase the likelihood that Recovery Act goals and objectives will be met. Much work has been done, however, much remains. Recovery Act efforts will require the continued focus and attention of senior officials across the Department. Our recommendations are designed to help ensure that on-going efforts are successful. Implementation of these recommended actions, when completed, should help the Department successfully execute its Recovery Act projects.

MANAGEMENT REACTION

Management concurred with each of the report's recommendations and indicated that many of the actions suggested have already been initiated or completed. In particular, management stated that it had, and continues to, act to ensure that adequate staff are available who are properly trained to carry out established Recovery Act oversight and monitoring plans.

AUDITOR COMMENTS

We consider management's comments and planned actions to be responsive to our recommendations. We included the full text of management's comments in Appendix 3.

Appendix 1

OBJECTIVE

The objective of this audit was to determine whether the Department of Energy's (Department) major program offices had developed an effective approach for identifying and mitigating risks related to achieving the goals and objectives of the American Recovery and Reinvestment Act of 2009 (Recovery Act).

SCOPE

This audit was performed between March and September 2009 at Department Headquarters in Washington, D.C., and Germantown, Maryland, and at the Department's site offices including: Oak Ridge Office in Oak Ridge, Tennessee; Golden Field Office in Golden, Colorado; Chicago Office in Argonne, Illinois; Fermi Site Office in Batavia, Illinois; Stanford Site Office in Menlo Park, California; Richland Operations Office and Office of River Protection in Richland, Washington; Idaho Operations Office in Idaho Falls, Idaho; Carlsbad Field Office in Carlsbad, New Mexico; Savannah River Operations Office in Aiken, South Carolina; and, at the National Energy Technology Laboratory in Pittsburgh, Pennsylvania and Morgantown, West Virginia. The audit was also performed at National Nuclear Security Administration site offices including Y-12 Site Office in Oak Ridge, Tennessee, and Los Alamos Site Office in Los Alamos, New Mexico.

METHODOLOGY

To accomplish the audit objective, we:

- Reviewed applicable laws, directives, and guidance pertaining to Recovery Act implementation, including OMB M 09-10, *Initial Implementing Guidance for the American Recovery and Reinvestment Act of 2009*; and, OMB M 09-15, *Updated Implementing Guidance for the American Recovery and Reinvestment Act of 2009*.
- Held discussions with program officials to discuss current and ongoing efforts to implement and meet the requirements of the Recovery Act.
- Held discussions with the Offices of the Chief Financial Officer and Management and Administration to discuss their roles in implementing the requirements of the Recovery Act.
- Held discussions with the Department's Office of Procurement and Assistance Management and Office of Program Analysis and Evaluation.

- Analyzed the programs' risk assessments and mitigation plans for the Recovery Act projects and identified remaining challenges.
- Held discussions with site office personnel to determine the controls in place to ensure that Recovery Act funds are segregated from non-Recovery Act funds.

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 objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objective. 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. Also, we considered the establishment of Recovery Act performance measures, which included certain aspects of compliance with the Government Performance and Results Act of 1993 as necessary to accomplish the objective. We did not conduct tests to establish the reliability of computer-processed data because we did not rely on the data to accomplish our audit objective.

Management waived the exit conference.

RELATED REPORTS

Office of Inspector General Reports

- *Report: Department of Energy's Efforts to Meet Accountability and Performance Reporting Objectives of the American Recovery and Reinvestment Act* (OAS-RA-09-04, September 2009). This report found that the Department of Energy's (Department) efforts to develop, refine, and apply the control structure needed to ensure accurate, timely, and reliable reporting to be both proactive and positive. However, the report did identify certain issues relating to the American Recovery and Reinvestment Act (Recovery Act) performance management, accounting and reporting accuracy, and timeliness that should be addressed and resolved. Additionally, a concern was noted that the Department's information systems supporting the Recovery Act activities may be unable to handle significant increases in workload or provide appropriate mechanisms to ensure that funds are accurately tracked and reported.
- *Special Report: The American Recovery and Reinvestment Act at the Department of Energy* (OAS-RA-09-01, March 2009). This report provided the Office of Inspector General's (OIG) perspective to the Department leadership of the risks to be considered as stimulus activities progress. The report is based on a body of work that has been used over time by Department officials to improve operations and management practices. Based on past experience, the OIG believes that a number of activities carried out by the Department need to be closely managed to ensure that they satisfy Recovery Act goals. These areas include funding accountability and reporting, awarding and monitoring of grants and cooperative agreements, contract management, and management of loan programs.
- *Special Report: The Department of Energy's Acquisition Workforce and its Impact on Implementation of the American Recovery and Reinvestment Act of 2009* (IG-RA-09-02, March 2009). As a result of the Recovery Act and its significant impact on Department operations, the OIG updated a prior review to determine if the size of the procurement workforce had changed in the intervening period. Although the Department has made progress in expanding its roster of professionals in this field over the last two years, the OIG remains concerned that sustaining this progress will be exceedingly difficult under current circumstances. The recent increase in the number of contract specialists does not reflect the increased demand for procurement service as a result of the unprecedented additional funding provided to the Department under the Recovery Act. While it is the Department's responsibility to determine the precise staff size needed, the current staffing level appears inadequate relative to current and future needs as the Department's mission responsibilities expand.
- *Special Report: Management Challenges at the Department of Energy* (DOE/IG-0808, December 2008). The OIG identified what it considered to be the most significant challenges facing the Department in Fiscal Year 2009. In particular, the

Appendix 2 (continued)

OIG believed that activities related to contract administration, cyber security, energy supply, environmental cleanup, safeguards and security, and stockpile stewardship represent the most serious challenges for the Department. The report also included a "watch list" of three issues that warrant continued attention by Department managers. Specifically, the OIG concluded that the Department's efforts to better manage human capital, modernize its infrastructure and improve worker and community safety require intense management attention now and in the future.

- *Report: Selected Energy Efficiency and Renewable Energy Projects* (DOE-IG-0689, May 2005). The OIG showed that several cooperative agreement projects with the Department's Office of Energy Efficiency and Renewable Energy (EERE) did not receive proper oversight from management and risk-based systems were not always applied. In particular, project officials in some cases were not aware of the status of their assigned projects, site visits were not conducted, and reviews of the projects were not properly documented. Also, correct procedures in evaluating high risk projects and control were not always followed. Due to the lack of oversight and involvement on the projects, the Department incurred more risk.

Government Accountability Office Report

- *American Recovery and Reinvestment Act: GAO's Role in Helping to Ensure Accountability and Transparency* (GAO-09-453T, March 2009). The Government Accountability Office found that there are many implementation challenges to ensuring adequate accountability and efficient and effective implementation of the Recovery Act. The report specifies that the risk for fraud and abuse grows when billions of dollars are going out quickly, eligibility requirements are being established or changed, and new programs are being created. This suggests the need for a risk-based approach to target for attention specific programs and funding structures based on known strengths, vulnerabilities, and weaknesses such as a track record of improper payments or contracting problems. In recent years, the accountability community has produced a wide variety of best practice and related guides, which are available to agencies to assist them in ensuring they have the needed internal controls in place. These best practice and related guides cover such areas as fraud prevention, contract management, and grants accountability.

MEMORANDUM FOR RICKEY R. HASS

DEPUTY INSPECTOR GENERAL FOR AUDIT SERVICE

FROM: STEVE ISAKOWITZ (508 VERSION NO SIGNATURE)
CHIEF FINANCIAL OFFICER

SUBJECT: Transmittal of Comments to the Office of Inspector General Draft Report – “Selected Department of Energy Efforts to Implement the American Recovery and Reinvestment Act”

Thank you for the opportunity to review and comment on the Office of Inspector General’s Special Report on “Selected Department of Energy Efforts to Implement the American Recovery and Reinvestment Act.” The Department has taken a positive and proactive approach to identify and mitigate risks to the successful implementation of its Recovery Act programs. We concur with your recommendations for further improving the Department’s Recovery Act implementation. Many of the actions suggested by the Office of Inspector General have already been initiated or completed. The attached comments discuss the specific actions relevant to the individual recommendations.

These comments have been reviewed and approved by the Recovery Act team, the Office of the Chief Financial Officer, the Department’s Offices of Energy Efficiency and Renewable Energy, Fossil Energy, Environmental Management, Science, and Electricity Delivery and Energy Reliability. We are also providing separate technical comments for your consideration in preparing the Final Report.

Attachment

Response to Inspector General Draft Report
Selected Department of Energy Program Efforts to Implement the American Recovery and Reinvestment Act
(A09HQ003, A09RA001, A09RA002, A09RA005, A09RA007)

As part of its ongoing and planned activities related to awarding and distributing Recovery Act funds, the Department should:

Recommendation 1

Continue to focus management attention on hiring qualified personnel to meet program needs and consider reallocating staff where appropriate.

Response

Concur

The Department continues to focus management attention on ensuring the availability of qualified personnel to meet staffing needs. Several offices within the Department have received direct hire authority for Recovery Act positions and are using that authority as appropriate to fill critical Recovery Act personnel needs. Additionally, Program Offices have reallocated personnel and retained contractor support as necessary to meet immediate staffing requirements. Senior Departmental managers will have an opportunity to review staffing issues for individual Recovery Act projects as part of the Recovery Program Reviews, which began this past October.

Estimated Completion Date: Completed.

Recommendation 2

Develop controls to improve accountability of financial assistance recipients using ASAP.

Response

Concur

ASAP is a Treasury Department payments system used to distribute financial assistance awards by some DOE program offices. Obligated funds are made available to recipients through ASAP, but DOE may limit the draw-down of funds from ASAP. Limiting the disbursement of obligated funds through ASAP is one tool for ensuring recipient accountability, and individual offices have developed procedures for releasing funds in ASAP based on the specific requirements of their projects. For example, the Office of Energy Efficiency and Renewable Energy has limited the draw-down of funds obligated through ASAP for its Weatherization program. Other offices making financial assistance awards will consider limiting the draw-down of funds in ASAP as necessary to ensure accountability for their individual projects and awards as appropriate for those projects and as permitted by applicable laws and regulations.

Estimated Completion Date: January 15, 2010

To prepare for the unprecedented level of oversight needed to effectively monitor the vast number Recovery Act projects, the Department and its program directors, as appropriate, should take steps to:

Recommendation 3

Revise financial assistance guidelines for monitoring awards or create new guidelines that incorporate additional Recovery Act requirements for monitoring and oversight.

Response

Concur

Program offices making financial assistance awards have taken numerous steps to develop monitoring and oversight plans for Recovery Act awards. The Office of Energy Efficiency and Renewable Energy has developed a detailed monitoring plan for its three largest Recovery Act programs. The Office of Science has modified its Work Authorization Statements and the Terms and Conditions statements on Recovery Act grants to address Recovery Act requirements. The Office of Electricity Delivery and Energy Reliability has developed a program management handbook with guidance on monitoring and oversight and is developing additional requirements for collecting cost-benefit information regarding the impact of Smart Grid on electricity transmission. All program offices are revising monitoring and oversight plans as necessary to meet specific Recovery Act challenges, and will provide current copies of monitoring and oversight plans to the Recovery Team and the Office of the CFO by January 15, 2010.

Other Department-wide efforts contribute to effective monitoring and oversight of Recovery Act programs. The Office of the CFO and the Recovery Team have initiated Recovery Program Reviews to provide an opportunity for senior managers to review progress on implementing Recovery Act projects and learn about significant issues affecting the individual programs. Additionally, the Office of the CFO has issued guidance on monitoring information reported quarterly by Recovery Act recipients to FederalReporting.gov. More frequent reporting by recipients to DOE would provide an opportunity for enhanced monitoring and oversight.

Estimated Completion Date: January 15, 2010

Recommendation 4

Perform staffing reviews, as necessary, to determine the level of personnel needed to oversee Recovery Act projects, prioritize and reallocate staff as appropriate, and continue to provide senior management attention to hiring needs.

Response

Concur

Most program offices have already conducted staffing reviews to identify their personnel requirements and have developed plans to address identified staffing deficiencies. Program offices will reevaluate their staffing requirements and submit current or revised staffing plans to the Recovery Team by January 15, 2010. As noted in the response to the first recommendation, the Recovery Program Reviews provide a forum for senior managers to learn about significant issues related to staffing.

Estimated Completion Date: January 15, 2010

Recommendation 5

Ensure that new staff hires are adequately trained in monitoring procedures.

Response

Concur

Program offices have developed training strategies for their new hires. These strategies necessarily vary depending on specific job requirements and the existing knowledge and qualifications of newly-hired staff. Ongoing training efforts include:

- Use of the Acquisition Career Management Program for newly-hired acquisition staff.
- Use of Individual Development Plans to identify training needs for individual staff.
- Establishment of a training program for personnel assigned to monitor Recovery Act programs by the Office of Energy Efficiency and Renewable Energy.

As program offices continue to refine their monitoring and oversight plans they will also develop plans for ensuring that new or revised monitoring requirements are communicated to the appropriate personnel.

Estimated Completion Date: Completed

Recommendation 6

If programs have not already done so, incorporate performance measures related to the goals of the Recovery Act into the Performance Evaluation Measurements Plans included in facility operations contracts and ensure that these measures factor into the performance evaluations of the management and operating contractors.

Response

Concur

Existing Performance Evaluation Measurement Plans vary in their applicability to Recovery Act goals, and the various program offices have made different determinations on the need to modify these to ensure that Recovery Act goals are considered in the performance evaluations of their management and operating contracts. Additionally, the role of the management and operations contractors in Recovery Act implementation varies depending on the specific project and program office.

The Office of Environmental Management has made changes to its contracts to ensure that award fee payments are linked to Recovery Act performance metrics. The Office of Science has determined that existing Performance Evaluation Measurement Plans are sufficient to assess contractor performance. The Office of Energy Efficiency and Renewable Energy

has revised several performance metrics for its one management and operations contract to ensure transparency and accountability in all related Recovery Act activities.

Estimated Completion Date: Completed

To meet the requirements mandated by the Recovery Act and to address the risks to project execution identified in our report, the Department should:

Recommendation 7

Ensure that safeguards are sufficient to enhance the likelihood of successful teaming arrangements for cooperative agreements.

Response

Concur

The Department's program offices will continue to review teaming arrangements when initiating cooperative agreements. The Office of Electricity Delivery and Energy Reliability has secured Letters of Commitment for all cooperative agreements, and, as cited in the IG report, the Office of Fossil Energy has implemented additional controls to enhance reviews of teaming arrangements. To ensure sufficient safeguards on teaming arrangements the Recovery Team plans to lead a special review of this issue prior to January 15, 2010.

Estimated Completion Date: January 15, 2010.

Recommendation 8

Ensure that all operational and oversight deficiencies previously identified through audits are considered as programs refine their risk assessment and mitigation plans and carry out project execution activities.

Response

Concur

The IG report notes that three program offices have not definitively demonstrated that three program offices considered audit findings, but it does not identify any relevant risks identified through audits that were not considered by the Department's risk assessment and mitigation plans. All five program offices evaluated by the IG considered operational and oversight deficiencies previously identified through audits in developing their risk assessment and mitigation plans. For any future updates of Recovery Act risk assessment and mitigation plans, program offices will affirmatively state that they have considered prior audit findings.

Estimated Completion Date: Completed

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