



# OFFICE OF INSPECTOR GENERAL

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## AUDIT OF USAID/AFGHANISTAN'S POWER SECTOR ACTIVITIES UNDER ITS AFGHANISTAN INFRASTRUCTURE REHABILITATION PROGRAM

AUDIT REPORT NO. 5-306-10-002-P  
November 10, 2009

MANILA, PHILIPPINES



*Office of Inspector General*

November 10, 2009

**MEMORANDUM**

**TO:** USAID/Afghanistan Mission Director, William M. Frej

**FROM:** Regional Inspector General/Manila, Bruce N. Boyer /s/

**SUBJECT:** Audit of USAID/Afghanistan's Power Sector Activities Under Its Afghanistan Infrastructure Rehabilitation Program (Audit Report No. 5-306-10-002-P)

This memorandum transmits our final report on the subject audit. In finalizing the report, we considered your comments on the draft audit report and included the comments in their entirety in appendix II.

The audit report contains eight recommendations to assist the mission in improving various aspects of the program. On the basis of information provided by the mission in response to the draft report, we determined that final actions have been taken on recommendations 2, 3, 5, 6, and 8. In addition, management decisions have been reached on recommendations 1, 4, and 7. A determination of final action will be made by the Audit Performance and Compliance Division upon completion of the planned corrective actions.

I want to thank you and your staff for the cooperation and courtesy extended to us during the audit.

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# SUMMARY OF RESULTS

Providing electrical power to the Afghan population is crucial to Afghanistan's development. As a key to political stability, sufficient, reliable electrical power is especially important for both the capital city of Kabul as well as for the southern agricultural provinces of Helmand and Kandahar (see page 3).

To improve the availability of electricity in these areas, USAID/Afghanistan awarded two major task orders under its Afghanistan Infrastructure Rehabilitation Program to the Louis Berger Inc./Black and Veatch Special Projects Corp. Joint Venture (the contractor).

- One task order, awarded in July 2007, was to build a diesel-powered electricity-generating plant that would provide 105 megawatts of additional power to Kabul—most of which was to be provided in time for the 2008–2009 winter season. This plant had a budget of \$261.8 million and was to be completed by April 2009 (see pages 3 and 12).
- The other task order, awarded in January 2007, was for the completion of work begun under an earlier USAID project at the Kajakai Dam in Helmand Province. The objective of this task order was to increase capacity of the dam's power plant by 35 megawatts (to a total of 51.5 megawatts) by June 2008 (see pages 3 and 16).

As of April 30, 2009, the combined ceiling price for these two task orders was \$305.5 million, and USAID/Afghanistan had obligated \$290.8 million and expended \$249.6 million for the two projects (see page 3).

The Office of Inspector General conducted this audit as part of its fiscal year 2009 audit plan to determine whether USAID/Afghanistan was achieving its main goal for these power sector activities (see page 4). Together, these two activities were expected to deliver 140 megawatts of additional electrical power to two strategically important areas of Afghanistan (see page 3).

The audit concluded that, because of construction delays, the mission had not achieved its goal of providing increased reliable power to these two areas within the planned timeframes (see page 5). For the Kabul power plant, the delays were caused by an initial inability to obtain adequate title to land for the power plant; an ambiguous statement of work resulting in inadequate planning and implementation; subcontractor performance problems; lack of mission onsite quality assurance; and problems in clearing equipment and material through customs (see page 7). For the Kajakai Dam project, deteriorating security in southern Afghanistan and inconsistent contractor performance contributed to the delay on that project (see page 16).

By the end of audit field work, on May 13, 2009, the mission-funded projects had completed construction of generators with the ability to produce only 12 megawatts of power out of the original goal of 140 megawatts—and this increase in power had not actually been delivered to the Afghan population (see page 5). As a result, the economic benefits anticipated for Kabul and the southern provinces of Helmand and

Kandahar are not being realized (see pages 12 and 19). Additionally, the contractor estimated that cost overruns attributable to the delays will amount to \$39 million in order to complete the Kabul power plant by December 31, 2009 (see page 11). As for the Kajakai Dam project, the original subcontractor left after its personnel received kidnapping threats, and the project cannot be completed until a new subcontractor is selected. The mission will have to continue paying the fixed costs of securing and maintaining the facility until work on the plant can be resumed. These fixed costs amount to an estimated \$1 million per month, even though none of the 35 extra megawatts of power has been delivered (see pages 16 and 19).

In addition, the audit found that the host government may not be able to afford to operate the Kabul power plant once it is completed. Specifically, the host government may not be able to meet its commitment to pay for diesel fuel to operate the plant because of the rising cost of diesel fuel and the government's inability to collect revenue for the generated electricity. Further complicating operation of the power plant is the configuration of the Kabul transmission system, which does not allow for the use of other power sources at certain times of the year when those power sources are lower in cost (see page 13).

Although the mission has not succeeded in providing the electrical power in accordance with its original schedule, the mission has experienced some successes. With regard to the Kabul power plant, seven engineering interns had completed training designed to help maintain the plant, and the transmission line from the plant to the main power grid had been completed and tested (see page 5). With regard to the Kajakai Dam power plant, some equipment and parts that were too large to be moved by air had been kept in storage since June 2006, and the mission coordinated with the International Security Assistance Force to move them via road to the dam to restart the project (see page 6).

However, with regard to subcontractor performance on the Kabul power plant, the audit found that the contractor had charged USAID for subcontractor costs that the contractor had not paid the subcontractor. The contractor had not paid these costs because of disputes and questionable claims in subcontractor invoices. The total amount the contractor received from USAID for these questionable costs (including contractor overhead, fixed fees, and imputed interest) amounted to an overbilling of USAID by \$2.1 million (see page 21).

The audit made eight recommendations, which include advising USAID/Afghanistan to develop implementation plans that address the critical tasks that must be accomplished to complete both projects successfully (see pages 13 and 19), develop a comprehensive sustainability plan for the Kabul power plant (see page 15), and recover approximately \$2.1 million overbilled by the Kabul power plant contractor (see page 21).

On the basis of an evaluation of the mission's response to the draft report, the Office of Inspector General determined that final actions have been taken on recommendations 2, 3, 5, 6, and 8 while management decisions have been reached on recommendations 1, 4, and 7 (see page 22). The mission's written comments on the draft report are included in their entirety, without attachments, as appendix II to this report (see page 25).

# BACKGROUND

The utilities sector in Afghanistan is among the least developed sectors in the economy. Only about 15 percent of the population has access to electricity. Most of the country's domestically produced electricity is generated by 11 hydroelectric plants. A small, gas-fired power plant near Mazar-e-Sharif is partially operational and produces less than 30 megawatts. Some additional electricity is supplied to villages along border areas by Afghanistan's neighboring countries, including Turkmenistan, Uzbekistan, Tajikistan, and Iran. Providing electrical power to Afghans is crucial to the development of Afghanistan and key to its political stability.

To promote political stability, providing sufficient electrical power has been important for both the capital city of Kabul as well as for the agricultural provinces of Helmand and Kandahar. The Governments of Afghanistan and the United States became increasingly concerned that Afghanistan's North East Power System might not be able to provide sufficient power to Kabul by the winter of 2008–2009. Furthermore, the Kajakai Dam hydroelectric power plant has been considered a vital component of the South East Power System in Afghanistan, which provides electricity primarily to the provinces of Helmand and Kandahar—the agricultural breadbaskets of the country.

In an effort to assist the Afghan Government and to make electricity more available within Kabul and within the southern provinces of Helmand and Kandahar, USAID/Afghanistan awarded two task orders under its Afghanistan Infrastructure Rehabilitation Program to Louis Berger Inc./Black and Veatch Special Projects Corp. Joint Venture. One task order (task order 9) was awarded in July 2007,<sup>1</sup> with an objective to build a diesel-powered electricity generating plant that would provide 105 megawatts of additional generating capacity in Kabul by the 2008–2009 winter season. This task order had a completion date of April 2009. The other task order (task order 2), awarded in January 2007 for the completion of work at the Kajakai Dam in Helmand Province, included refurbishment of an existing turbine, installation of a new turbine, and various supporting services. The objective of this task order was to increase capacity of the dam by 35 megawatts (to a total of 51.5 megawatts) by an estimated completion date of June 30, 2008. These two projects were to deliver a total of 140 megawatts of additional electrical power to two strategically important areas of Afghanistan.

As of April 30, 2009, the combined ceiling price for these two task orders (including \$2.8 million for related activities, such as demining and building a perimeter wall, specified under another task order) was \$305.5 million. By that date, USAID/Afghanistan had obligated \$290.8 million and expended \$249.6 million for the two projects.

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<sup>1</sup> A definitive contract issued in July 2007 for task order 9 superseded the letter contract initially issued in May 2007.

## **AUDIT OBJECTIVE**

The Regional Inspector General/Manila conducted this audit as part of its fiscal year 2009 annual audit plan to answer the following question:

- Is USAID/Afghanistan achieving its main goal of improving the availability of electrical power to Kabul and the southern provinces of Helmand and Kandahar, through power sector activities under the Afghanistan Infrastructure Rehabilitation Program?

Appendix I contains a discussion of the audit's scope and methodology.

# AUDIT FINDINGS

The mission did not achieve its goal of providing increased available power within the planned timeframes. Of the original goal of 140 megawatts, the mission-funded projects were able to deliver only 12 megawatts of power. As a result, the economic benefits anticipated from having a consistent and stable power supply for the city of Kabul and for the southern provinces of Helmand and Kandahar have not been realized. The table below summarizes the delivery goals and actual megawatts delivered by task order.

**Table 1. Power Delivery Goals and Actual Delivery as of April 2009**

Task Order	Megawatts Delivery Goals	Milestone Delivery Dates	Actual Megawatts Delivered	Actual Delivery Date
Kajakai Dam power plant (Task order 2)	35	06/2008	0	N/A
Kabul 105-megawatt plant (Task order 9)	70	12/2008	12	4/2009
	35	04/2009	0	N/A
Subtotal	105		12	
Total	140		12	

As of May 13, 2009, when audit field work ended, the mission-funded projects were able to deliver only 12 megawatts of power, far less than the original goal of 140 megawatts. Moreover, this modest increase in power had not actually been delivered by the new Kabul power plant to the city's population. By that date only 3 of 18 planned generators had been installed at the plant, 2 of which could generate the 12 megawatts of power. The third generator installed at the plant—which the project had expected to generate 5.8 megawatts—had yet to undergo startup and testing activities. As for the Kajakai Dam project, none of the 35 extra megawatts of power had been delivered to the local population as of May 13, 2009.

Although the mission-funded projects have not succeeded in providing the electrical production in accordance with its original schedule, USAID/Afghanistan has experienced some successes under each task order. With regard to the 105-megawatt plant, the mission has funded ongoing training, and to date seven engineering interns, three mechanical and four civil, have been trained to maintain the plant. The interns perform tasks that include maintaining a detailed material control and inventory of equipment, monitoring civil installation, performing materials testing, preparing daily construction reports, and interpreting technical drawings. Also, the transmission line from the power plant to the main power grid has been completed and tested. With regard to the



activities under the task order for the Kajakai power plant, parts that weighed approximately 200 tons had been in storage since June 2006 because they could not be moved by air. The mission coordinated with the International Security Assistance Force to deliver the parts by road, in a large military convoy—a delivery that restarted the stalled project.



**The Kajakai Dam power house in Helmand Province.  
(Photo by the Office of Inspector General, May 2009.)**

Although these successes contributed to advancing both projects, the audit nonetheless identified the following issues that the mission needs to address to further the results and impact of the project:

- The delay in the construction of the Kabul 105-megawatt power plant
- The host government's ability to meet its commitment to provide fuel to operate the Kabul power plant
- The delay in the Kajakai turbine renovations
- The recovery of \$2.1 million in contractor overbilling

## Construction of 105-Megawatt Power Plant for Kabul Is Behind Schedule

**Summary.** The contract with the Louis Berger Group, Inc./Black and Veatch Special Projects Corp. Joint Venture specified that the power plant would be ready to provide 70 megawatts of power by the end of December 2008, with an additional 35 megawatts to be provided by April 2009. However, because of construction delays, at the end of April 2009 only 12 megawatts of power were available to add to the power grid. The delays resulted from various causes—some of which were beyond the mission’s control—including (1) an inability to obtain adequate title to land for construction, (2) an ambiguous statement of work resulting in inadequate planning and implementation, (3) a delay in subcontractor award and mobilization, (4) subcontractor performance problems, (5) a lack of mission onsite quality assurance, (6) inconsistent communication between the contractor and the mission, (7) delays in getting timely approvals from the contracting officer, and (8) transportation problems. As a result, costs are estimated to increase by \$39 million, and economic benefits from the added power are not being realized.

According to the contract, Louis Berger Group, Inc./Black and Veatch Special Projects Corp. Joint Venture was expected to complete two of three diesel power generation blocks (blocks A and B) by the end of December 2008. These two power blocks—consisting of six generators per block—should have been ready to provide 70 megawatts of power to the Kabul power grid when completed by that date. The third block (block C) should have been completed by the end of April 2009, to provide an additional 35 megawatts of power. In all, the three blocks were expected to provide 105 megawatts of electricity.

Because of construction delays described below, the contractor did not meet the established milestone dates. At the time of the audit, the contractor estimated that it would be able to deliver only the initially promised 70 megawatts of electricity from blocks A and B by the end of September 2009—9 months behind schedule. The remaining 35 megawatts from block C are anticipated to be delivered by December 2009. However, as of the end of April 2009, only block A was substantially complete—85 percent complete with two of six generators available for producing approximately 12 megawatts of electricity.

The delays in construction resulted from issues such as (1) an inability to obtain adequate title to land for construction, (2) an ambiguous statement of work resulting in inadequate planning and implementation, (3) a delay in a key subcontractor award and mobilization, (4) subcontractor performance problems, (5) a lack of mission onsite quality assurance, (6) inconsistent communication between the contractor and the mission, (7) delays in getting timely approvals from the contracting officer, and (8) transportation problems. Each issue is described in more detail below.

- **Land Issues.** The project was delayed in part because USAID/Afghanistan did not obtain a commitment of land from the host government prior to the obligation of funds, a land ownership issue that took almost a year to resolve. The mission

initially awarded a letter contract<sup>2</sup> for task order 9, with an effective date of May 2007, even though it did not actually receive a formal commitment for the land from the Ministry of Energy and Water until August 2007—3 months after the effective date of the letter contract. The mission worked with the ministry for several months, trying to identify an appropriate tract of land. Several parcels were considered but ultimately rejected, either because the land was already promised to another donor or the site was inappropriate for construction. Compounding the delay, once work had begun, a local tribe told the contractor in February 2008 that the tribe owned the land. The ministry was contacted to resolve the issue, and the contractor had to stop work during April 2008, while negotiations were taking place. It was not until the end of April, after ownership issues were resolved, that the contractor could continue work at the site.

- **Ambiguous Statement of Work.** Under the pressure of political urgency, the mission wrote a vaguely worded statement of work. Mission officials commented that they had been under extreme political pressure to deliver a specified amount of additional power before the Afghan elections in the winter of 2008–2009.<sup>3</sup> Specifically, the original statement of work was not comprehensive and did not require specific deliverables with concrete delivery dates. For example, although the statement of work required the prime contractor to obtain construction schedules from each of its subcontractors, it was not required to provide a consolidated schedule. Furthermore, the contract contained no consequences for failing to provide power by the specified milestone dates. These contract flaws were compounded by the inexperience of the original mission personnel tasked with preparing the statement of work.

As a result, the planning process and ultimately the implementation of the project were fragmented. The contractor commented that, under normal circumstances, it would have submitted a comprehensive schedule, detailing the required resources along with a list of critical tasks that must be implemented on time to prevent delays in the project. However, to complete the project by the required date, the project was carried out as a series of separate tasks specified by the mission. For example, the initial award included only the purchase of equipment to be manufactured, such as the 18 generators and supporting equipment, and an initial search for potential bidders for other critical tasks, such as the transmission line to the main power grid. Modifications were made subsequently, as the project progressed. At no point, however, did the mission develop a comprehensive construction schedule or require one from the contractor.

Furthermore, to expedite project tasks, the mission approved quick-response task orders under another task order (task order 3) to move certain projects forward, such as demining the land and building a security perimeter wall. Quick-response task orders were incorporated into task order 3 as a means of approving low-cost tasks. However, these individual quick-response task orders were never integrated into an

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<sup>2</sup> A mutually binding legal instrument where the principal purpose is the acquisition, by purchase, lease, or barter, of property or services for the direct benefit or use of the Federal Government. In this instance the letter contract was used to begin work on the facility until a permanent contract could be negotiated.

<sup>3</sup> Subsequently postponed to August 2009.

overall plan or included in the original award. As a result, there was no comprehensive schedule against which to assess progress.



**One of the generator blocks under construction in Kabul.  
(Photo by the Office of Inspector General, April 2009.)**

In retrospect the mission agreed that much more time should have been dedicated to preparing the statement of work and to the planning process. However, given the political pressures involved, the mission commented that it did what it could to keep the project moving toward the required completion date. Moreover, the mission said that a lack of staffing has contributed to its problems. Contracting officers and their technical representatives carry a heavy load and constantly work on multiple portfolios and projects. The mission is in the process of hiring additional technical and support staff to address the lack of staffing.

The mission also commented that it had developed a statement-of-work template and training to assist the technical offices. This training is meant to supplement the initial training provided to contracting officer's technical representatives in Washington, DC. However, this local training is not required, nor is the use of the template.

- **Delays in Subcontract Award and Mobilization.** Numerous delays occurred in the award and mobilization of the subcontract. The contractor subcontracted the construction of the power plant to Symbion Power, a U.S.-based firm. Symbion Power stated that it was told that the award of the subcontract would occur in April 2008 and that its original schedules assumed mobilization in May 2008. However, the final subcontract was not signed until early June 2008, putting the subcontractor a month behind schedule from the start.

Symbion Power's mobilization encountered delays as well. The contractor was

expected to provide Symbion Power with certain work site infrastructure by the end of June 2008, including office and residential space as well as site preparation. However, when Symbion Power mobilized, it discovered that these items had not been completed. Symbion Power stated that the site preparation was not completed until approximately the end of August 2008 and that its offices were not completed until mid-September 2008.

- **Subcontractor Performance Problems.** Additionally, the contractor experienced performance issues with its subcontractors that contributed to the delays. For example, another subcontractor, Caterpillar—the firm that was manufacturing the 18 generators—notified the contractor that a quality control problem would delay delivery of the generators for blocks B and C. The delivery schedule for block B slipped by 88 days and for block C by 15 days.

Symbion Power also experienced delays resulting from performance issues. Symbion had trouble obtaining qualified local labor, for example, and was slow to respond to the contractor's request to use more foreign labor. Symbion Power finally obtained foreign labor through its subcontractor; however, the subcontractor brought in the foreign workers under tourist visas instead of work visas. As a result, when the workers were notified that they could no longer work under the tourist visas, they left the country, and Symbion Power's difficulty in finding qualified labor continued. The mission commented that, had Symbion Power notified the mission through the contractor that visas were a problem, the mission could have assisted in obtaining the required work visas. The mission also commented that in the future it will require contractors to perform a labor market analysis to determine whether sufficient local labor exists. If sufficient labor does not exist, the mission will incorporate capacity training of local staff as part of future task orders. However, because the mission has no written procedure in place to require this type of analysis, there is no assurance that this type of analysis will be done in the future.

In addition, Symbion Power commented that it had difficulty getting its local staff to work night shifts and during holidays. It stated that overtime pay and other incentives were offered but not accepted. Symbion Power also stated that Ramadan and the Eid holiday<sup>4</sup> set back the schedule drastically. The holiday season resulted in shortened work shifts and delayed the program by approximately 5 weeks.

Although Symbion Power claimed that it had 500 people working on its site, the mission and the contractor contended that additional skilled laborers were required. At the time of audit fieldwork, the contractor was working with Symbion Power on a recovery schedule.<sup>5</sup>

- **Lack of Onsite Quality Assurance.** In normal mission practice, quality assurance oversight of construction activities is conducted onsite, either by independently contracted engineers or the mission's local staff. However, USAID/Afghanistan does not have this practice documented in its procedures, and in this case the mission did not have an onsite presence. The mission stated that it was not sure why an onsite quality assurance engineer had not been assigned to the project, but the mission

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<sup>4</sup> Muslims observe fasting from sunrise to sunset during the month of Ramadan. The month-long fast is concluded with a 3-day festival known as *Eid* or *Eid ul-Fitr*.

<sup>5</sup> A recovery schedule documents how the subcontractor will attempt to catch up on its construction.

agreed that one should have been assigned. Had an onsite engineer been assigned to the project, the mission would have been aware of problems sooner. The mission is in the process of hiring individuals to monitor work for the remainder of the project.

- **Inconsistent Communication Between the Mission and Contractor.** USAID/Afghanistan contended that it was unable to assist the contractor in moving the project forward because the contractor did not convey critical information to the mission promptly enough to be useful. Specifically, a contractor's internal report, dated December 2008 and detailing problems in delivering the completed facility on time, was not provided until mid-January. Further, delays in customs clearance as well as the inability to obtain work visas were not communicated promptly to the mission. The mission contended that, had it known of all the problems the contractor was experiencing, it could have intervened sooner to help resolve the problems. To correct these communication issues, the mission now meets with the contractor weekly.
- **Lack of Timely Approvals.** The contractor contended that approval for critical tasks required for a fast-track project like this was delayed at the mission. For example, the contractor had prepared a detailed analysis of the various transportation options available to transport the generators, which were being built by Caterpillar in Germany. This analysis involved a cost assessment as well as an assessment of security risks in transporting the generators overland through insecure areas. According to the mission, the contractor originally had received approval from USAID's Regional Acquisition Office in Bangkok but then was required to provide additional justification to the contracting officer in Kabul before the contract modification was signed for transporting the generators from Germany to Kabul. The mission agrees that all parties to the process should have been involved from the beginning in deciding how to transport the generators and that this particular approval took longer than expected. This one contract modification took 2 months to approve—a critical delay for a fast-track project.
- **Transportation Delays.** The project also suffered from a series of transportation delays. Specifically, there were problems with clearing items through customs at border crossings and with finding drivers willing to transport items from the Pakistani border to Kabul. Also, items such as transmission towers and raw materials were delayed at border crossings.

The effect of these problems can be measured in terms of additional costs to the contract, including incremental operating costs and delay claim costs; additional costs resulting from the lack of a more modern and efficient plant to replace existing inefficient plants; and costs resulting from a delay in the economic benefit of delivering more stable and consistent electrical power to the residents of Kabul.

The delays described above will raise the overall cost of construction higher than expected, amounting to \$39 million in additional costs. The original budget for completion of the facility included items from task order 9 as well as quick-response tasks included in task order 3 to keep the project moving. The total estimated budget for both task orders was almost \$262 million. The contractor estimates that the cost of completing the facility by December 31, 2009, will be nearly \$301 million. That estimate includes anticipated delay claims plus the incremental costs for running the facility, such as security and camp support costs. Although the full costs of the delay claims are

unknown at this point, the contractor commented that it had taken a conservative approach and assumed a worst-case scenario to develop its estimates for these claims. Budgeted costs and the cost overrun are summarized below.

**Table 2. Budgeted Costs and Cost Overruns for the Kabul 105-Megawatt Plant**

<b>Task Order</b>	<b>Description</b>	<b>Amount (\$millions)</b>
Task order 9	Budget for Kabul 105-megawatt plant	\$ 259.0
Task order 3	Budget for “quick-response support” for demining, perimeter wall, etc.	2.8
	<b>Total budgeted costs</b>	<b>261.8</b>
	Contractor estimate to complete	300.8
	<b>Cost overruns attributable to delays</b>	<b>39.0</b>

In addition, the delay in completing this power plant has forced Kabul to rely on a significantly older power plant that consumes more fuel. Kabul receives some of its power from an old diesel-generator plant constructed in the 1970s. A mission analysis shows that the use of this inefficient plant costs an estimated \$100,000 daily in extra fuel.

Finally, the purpose of building the 105-megawatt plant was to provide more reliable power over a greater number of hours per day. The expected impact upon the citizens of Kabul was increased economic growth and a better quality of life overall. The portion of the Kabul power grid that the new plant will feed into now supports approximately 255,000 residential customers. Existing power production capabilities are meeting only about 42 percent of the demand required. The addition of the 105 megawatts from the completed facility will meet an estimated 70 percent of demand in Kabul and is expected to have a positive economic impact of approximately \$640 million in its first full year of operation, according to a study funded by USAID. Besides delaying the longer-term economic impact of the program, the delay in the completion of the facility will forestall any immediate increase in the number of hours per day of electric power available to Kabul residents.

Although some causes of the delay in the program were beyond the mission’s control, and the mission is addressing other causes already, we are making the following recommendations.

**Recommendation 1.** *We recommend that USAID/Afghanistan require that its training on statement-of-work preparation be provided to all new contracting officer’s technical representatives.*

**Recommendation 2.** *We recommend that USAID/Afghanistan develop procedures, such as the use of quality control checklists, to ensure that statements of work include such critical elements as clear deliverables with specified due dates.*

**Recommendation 3.** *We recommend that USAID/Afghanistan establish procedures requiring that a labor skills assessment be performed by a contractor,*

*either upon award of a construction contract or upon the award of a task order under the contract. The assessment would include, as appropriate but not limited to, the availability of qualified local labor, vocational training needed to cultivate local labor, and plans to coordinate with the mission to obtain appropriate visas for non-Afghan labor.*

**Recommendation 4.** *We recommend that USAID/Afghanistan establish written procedures to ensure that all significant construction projects have onsite quality assurance engineers.*

**Recommendation 5.** *We recommend that the mission develop an overall implementation plan for the Kabul power plant project that incorporates updated construction schedules for the contractor and subcontractor, identifies delays in critical tasks, and establishes steps to keep the project on track.*

## **Host Government May Not Be Able to Meet Its Commitment to Provide Fuel to Operate the Kabul Power Plant**

**Summary.** Sustainability is a core element of USAID program design guidance. However, it is unlikely that the host government can afford to pay for the fuel to operate the facility, for reasons such as increases in fuel prices and the inability to collect on utility bills. In addition, the current configuration of the northern Kabul transmission system does not allow for use of cheaper electricity alternatives at certain times of the year, although these alternatives could ultimately reduce overall fuel costs. Without fuel to run the facility, the plant will not be able to produce sufficient electricity to meet consumer demands. As a result, businesses will almost certainly suffer, and the anticipated economic gains from having this reliable power source will not be achieved.

Sustainability is a core element of USAID program design, as shown in the Agency's Strategic Plan Checklist, which requires strategic teams within the mission to address two questions:

- (1) Is the achievement of sustainability for these institutions and processes realistic and within the planned timeframe for the completion of USAID's assistance to a specific strategic objective and/or a country's graduation from USAID assistance?
- (2) Will sustainability plans be provided for key institutions and processes that will be necessary beyond the timeframe of the USAID strategy?

Furthermore, section 611(e) of the Foreign Assistance Act of 1961, as amended and codified in 22 U.S.C. 2361, provides that whenever certain types of funds are proposed to be used for a capital assistance project exceeding \$1 million, the head of agency must take into consideration the mission director's certification as to the capability of the country to effectively maintain and utilize the project.



The mission lacks sufficient assurance that the host government can continue operating the 105-megawatt facility once it is completed, despite the government's commitment to do so. While Ministry of Energy and Water employees are being trained in the day-to-day operations of the power plant, the mission lacks sufficient assurance that the host government will provide the fuel needed to run the facility, especially during such peak times as the winter and in view of the host government's previous failure to meet its commitment to provide fuel for this project.

At the start of the project, the mission received a commitment from the Afghan Government to budget and provide for the fuel required to operate the facility. The mission director also certified that the host country had the capability to effectively maintain and utilize the project.

In October 2008, however, the host government notified the mission that it would be unable to purchase fuel for the new facility when it was completed and requested financial assistance to purchase fuel for the upcoming winter when the plant was to have been completed. In response, the mission reduced its contribution to the Afghanistan Reconstruction Trust Fund, a trust fund managed by the World Bank, by \$28 million and used these funds to purchase fuel. However, since the project was not completed on time, the \$28 million was used to purchase fuel for an existing plant. Approximately \$15.6 million for fuel was procured out of the \$28 million, and in April 2009 the host government requested that the remaining funds be reserved for the next winter. The request indicates that the host government is not providing a sufficient budget to cover fuel costs. Although the mission expected another request for the next winter, the mission had not developed a sustainability plan for the power plant that would address the host government's ability to run the plant and to meet its commitment to provide for future fuel purchases.

The host government indicated that it could not provide the fuel because of such issues as increases in fuel prices and the inability to collect on utility bills. Furthermore, the current configuration of the northern Kabul electrical transmission system does not allow for the use of cheaper electricity alternatives that could ultimately reduce fuel prices. These issues are discussed below.

As for increases in fuel prices, according to the mission, the host government had based its initial budget on diesel prices remaining at 70 cents per liter. However, as the winter of 2008 approached and fuel prices increased to \$1.25 per liter, the host government's fuel budget was no longer sufficient.

Complicating matters was the inability of the host government's public utility to collect revenue for electrical services. According to the mission, the public utility does not know who its customers are, and corruption within the utility itself makes collection on bills virtually impossible.

Finally, with regard to the configuration of the Kabul transmission system, the current segregation of Kabul into two distinct power transmission sectors prevents the use of alternative sources of electricity, thereby increasing the need for diesel fuel and increasing overall costs. Kabul is divided into two sectors: one receives power from hydroelectric plants as well as the diesel plants, and the other receives power imported

from Uzbekistan. According to the mission, the preferred priority for using power, from least to most expensive, is to use the hydroelectric plants first, then imported power, and then diesel. However, under the terms of the agreement with Uzbekistan, the power grid in Kabul cannot be united into one grid because Uzbekistan does not trust the Kabul power plants. Uzbekistan fears that electrical problems within a shared grid would cause problems with its own power plants. Moreover, hydroelectric power is in greater supply at certain times of year, when runoff from the snowmelt increases water levels at the dams. During low-water seasons, such as summer and winter, more diesel power must be added to the power grid, with a consequent increase in overall costs.

The mission stated that it is considering moving several projects forward, including privatization of the utility company to assist it in collecting revenue and changes to the transmission systems in Kabul to make them more stable. The long-term goals are to integrate all potential sources of power and to use the most efficient and cheapest combination at any point in time.

The mission commented that it recognizes the need for developing a comprehensive exit strategy for the 105-megawatt plant. The strategy would integrate the mission's future power sector projects and the potential cost of providing fuel.

Without sufficient diesel fuel on hand at the new plant and without the ability to integrate other sources of power into the mix, the power sector may not produce enough electricity to meet consumer demands in Kabul. Businesses will likely suffer as a consequence, and the anticipated economic gains and political stability resulting from a reliable power source will not be achieved.

***Recommendation 6.*** *We recommend that USAID/Afghanistan develop a comprehensive sustainability plan that includes considerations for anticipated fuel purchases as well as the impact and timing of future mission projects affecting the 105-megawatt plant.*

## Kajakai Project Is Behind Schedule

**Summary.** The contract called for the contractor to complete work at the Kajakai power plant by June 30, 2008, but the contractor is more than 1 year behind schedule. Delays resulted primarily from a deteriorating security situation in southern Afghanistan, inconsistent subcontractor performance, and transportation problems. As a result of the problems encountered and to keep the project moving forward, the mission incurred unexpected transportation costs. Furthermore, until the contractor identifies a new subcontractor to install the new turbine, the mission will continue to incur an estimated \$1 million per month in site security and support costs.

According to task order 2, the contractor was expected to complete installation of a new turbine (turbine 2) and the refurbishment of another turbine (turbine 3) by June 30, 2008, in the Kajakai Dam hydroelectric power plant, thereby adding an additional 35 megawatts of power. In September 2005, turbine 1 was completed under a predecessor program to the current Afghanistan Infrastructure Rehabilitation Program and began providing 16.5 megawatts of power.

Because of the delays described below, the refurbishment of turbine 3 and the installation of turbine 2 had not been completed at the time of the audit. Turbine 3 was scheduled to be completed by July 2009. Moreover, no specific start or completion date had been established for the installation of turbine 2.

The refurbishment of turbines 1 and 3 and installation of turbine 2 were originally supposed to be completed under the Rehabilitation of Economic Facilities and Services Program, the predecessor program mentioned above. Because of deteriorating security, however, the contractor for that program was able to complete only the refurbishment of turbine 1. The remaining work for turbines 2 and 3 was ultimately transferred to the new program. As elaborated below, delays resulted primarily from deteriorating security conditions in southern Afghanistan, inconsistent subcontractor performance, and transportation problems.

- **Security.** In a previous audit (Audit Report No. 5-306-07-004-P, May 21, 2007), OIG noted that after the refurbishment of turbine 1 at Kajakai, the work site had shut down because of deteriorating security conditions, and the contractor's entire staff had evacuated in June 2006. Since that time, the mission has succeeded in overcoming some of the security challenges and has been able to restart some work at the dam. The mission has been able to deliver some of the parts via helicopter and set up base camp operations. However, poor security still affects work at the dam—specifically, the inability to use the road leading to the dam and the demobilization of a subcontractor because of kidnapping threats.

When the upgrades to the Kajakai facility were first planned in 2005, road travel in the area was feasible. However, the road leading to the dam is now impassable. The last successful use of the road to Kajakai was in May 2006 to bring in turbine parts as well as supplies for a base camp. Moreover, when the contractor attempted to reestablish the base camp in January 2007, it could not use the road to supply the facility. Tragically, in a February 2007 attempt to use the road to bring in supplies

and equipment, two individuals died and another person was wounded. The mission and contractor attempted several plans to reopen the road, including issuing a task order to completely rebuild the road with local labor. These plans eventually proved unsuccessful, however. In October 2007 the mission finally was able to establish a temporary base of operations, this time with supplies delivered exclusively by air. The base included an advance party from the Chinese Machine-Building International Corporation (CMIC, a state-owned Chinese company), a subcontractor hired to perform the work on turbines 2 and 3.

Permanent base operations began in January 2008 with the arrival of site support personnel. These were soon followed by regular helicopter support missions to keep the base camp resupplied. On March 28, 2008, the subcontractor at last began disassembling turbine 3, the turbine slated for refurbishment.

Parts for turbine 3 and smaller parts for turbine 2 could be flown in by helicopter, but some parts for turbine 2 were too large—some weighing as much as 30 tons—and therefore an alternative delivery by road had to be explored. To transport these items by road, the mission began coordinating with the International Security Assistance Force (ISAF) as early as March 2007. However, the mission encountered several problems beyond its control. For example, given the nature of the mission's request, the U.S. and British military commanders required permission from their respective national command centers before they could agree to move and escort the equipment along the road. Further complicating the matter were the periodic changes in military commands, when each new commander wanted to alter the proposed plan to move the equipment. In June 2008—14 months later—ISAF at last committed to moving and escorting the equipment. Another 3 months passed while ISAF planned the logistics for the move, such as how to transport heavy equipment still in storage from Kabul to Kandahar before it could be transferred to Kajakai. The convoy departed Kandahar on August 28, 2008, and arrived in Kajakai on September 2 with approximately 200 tons of equipment. Along the route the convoy reportedly encountered and killed approximately 200 Taliban insurgents.

Besides the delays associated with moving the equipment to Kajakai, the mission also encountered the demobilization of CMIC, the Chinese subcontractor. CMIC personnel had received threats of kidnapping, and in October 2008, the Chinese Government notified the subcontractor that it must evacuate the Kajakai site. CMIC left the site on November 4, 2008. The contractor anticipated that CMIC would return in January 2009, but as of the end of audit fieldwork, CMIC had not returned or made any commitment of when it would return. The contractor started to refurbish turbine 3 itself and was making progress toward meeting the revised July 2009 deadline. However, no replacement subcontract has been awarded for the installation of turbine 2, nor has a revised implementation plan been created. At the time of the audit, there was one potential bidder, but it was unclear whether that firm would be able to mobilize to the site.

- **Inconsistent Subcontractor Performance.** Another factor contributing to the delay was subcontractor performance in terms of providing sufficient staffing and efficiency of operations. When CMIC originally mobilized its staff, it sent an advance team of three individuals. This number eventually increased to eight. However, according to the mission, the subcontractor was not performing its tasks efficiently under the subcontract. The mission pointed to examples of inefficiency such as building

concrete forms onsite that could have easily been procured and delivered. In another instance, the subcontractor planned to ship parts for turbine 3 to China for refurbishment, but they were sent to Kabul instead. The mission asked CMIC to accelerate the schedule, but CMIC refused. The mission also pointed to periods of inactivity, such as during the summer of 2008 when the mission made site visits to the dam and found workers sitting idly and watching the Beijing Olympics. CMIC has not billed for that period of inactivity; in fact, the last CMIC invoice received and paid was for May 2008.

- **Transportation Issues.** In addition to unsafe road transport, the mission has also experienced problems with air transport. For example, in January 2009, ISAF temporarily impounded the mission's helicopter fleet at the Kandahar air base. ISAF also confiscated electronic equipment such as cell phones and interrogated the Russian pilots of the mission's helicopter fleet. The pilots were not allowed access to their aircraft until they had received the proper clearances and badges. Although this incident was relatively minor, another transportation issue could cause greater challenges in the future—the transport of cement to the Kajakai project site. The installation of turbine 2 will require 300 tons of cement and approximately 600 tons of aggregate. Using a helicopter to transport these materials is prohibitively costly, and the road is still not safe to travel. At the time of the audit, the mission was exploring other options, including another military convoy; however, the specific options had not been incorporated into an overall implementation plan.



**Refurbished parts for turbine 3 stored in the Kajakai power plant in Helmand Province. (Photo by the Office of Inspector General, May 2009.)**

The effects of the delays can be measured in terms of additional costs to the contract due to increased transportation costs, incremental costs of operating the facility while waiting for a new subcontractor to take over construction of turbine 2, and the delay in economic benefits that were to be provided to the area residents.

At the start of the project, neither the mission nor the contractor anticipated that the road would be shut down. If the mission had been able to use the road instead of airlifting the parts, it could have saved approximately \$6.9 million. The mission paid approximately \$7 million for airlifting 1,516 tons of parts over a 7-month period from August 2008

through March 2009. Had the same parts been moved using local ground transportation, the cost would have been approximately \$100,000. While a heavy-lift helicopter could be used for some of the turbine parts, the larger items, such as the transformers, required land transportation and military escort. ISAF billed USAID approximately \$1 million for the transport of the heavy equipment.

The project cannot be completed until a new subcontractor is selected to replace the original subcontractor, which left when its personnel were threatened. Given that a new subcontractor has not been selected yet, the mission will have to continue providing the costs of operating the facility until a new subcontractor comes onsite. Future estimated security and support costs for the Kajakai facility amount to slightly over \$1 million per month and include the costs of security, support staff, and helicopter resupply.

Finally, the cost of the delays can also be measured in terms of the benefits not delivered to Afghan citizens. The portion of the southeastern power grid into which the existing plant will feed currently supports approximately 57,000 residential customers. Existing power production capabilities are meeting only about 22 percent of demand. Upon completion of the upgrades to turbine 3 and installation of turbine 2, the facility will meet an estimated 48 percent of demand and have an economic impact of approximately \$93 million in 2010 alone, according to a study funded by USAID.

Some of the issues discussed above have been beyond the mission's control; nevertheless, we are making the following recommendation.

***Recommendation 7.*** *We recommend that USAID/Afghanistan prepare a detailed implementation plan that documents the current status of the Kajakai project and explains how the mission intends to proceed with installation of turbine 2, including potential barriers to successful installation of the turbine and contingency plans to overcome these barriers.*

## **Contractor Overbilling of \$2.1 Million Needs to Be Recovered**

**Summary.** The Federal Acquisition Regulation (FAR) provides that only costs incurred should be claimed for reimbursement on invoices issued to the U.S. Government. However, the contractor billed for and received funds from the U.S. Government on subcontractor invoices for which the contractor had withheld payment to its subcontractor. The contractor had withheld payment because of a questionable percentage of completion amounts claimed by the subcontractor on its invoices to the contractor. As a result, the mission is owed \$2.1 million for subcontractor costs (including related contractor costs plus imputed interest) that may not have been incurred—costs that the mission needs to recover from the contractor.

FAR 31.2, Contracts with Commercial Organizations, provides that costs claimed should have been incurred and that costs are allocable and therefore chargeable to a contract on the basis of relative benefits received or other equitable relationship [FAR 31.201-2 and -4]. This subpart and the contract also state that costs refunded to the U.S. Government will include all applicable related costs, such as overhead, fixed fees, and interest [FAR 31.201-6(a)].

However, the contractor billed for and received payment from the U.S. Government for subcontractor invoices for which the contractor had withheld payment. As of May 13, 2009, the last day of fieldwork, the funds remained withheld, and the contractor had not credited the mission for these funds.

Specifically, the contractor received funds for its invoice No. 44 on February 24, 2009, from the mission under task order 9 (for the Kabul 105-megawatt power plant). This invoice included two Symbion Power (subcontractor) invoices amounting to \$1.9 million. However, the contractor withheld paying this amount to Symbion Power because of the subcontractor's questionable percentage of completion claims contained in the invoices. The contractor notified the subcontractor on February 28, 2009, of its intent to withhold funds. Subsequently, on March 3, 2009, the contractor sent an official notification to withhold funds to Symbion Power until the subcontractor had fully substantiated its claimed percentage of completed work. The contractor furnished the mission's contracting officer, the technical office director, and the contracting officer's technical representative with copies of this notice.

As of May 13, 2009, the last day of audit fieldwork, the subcontractor had not satisfied the contractor's requests, and the issue remained unresolved. Furthermore, the contractor still had not paid Symbion Power's invoice. Therefore, since the costs were not clearly incurred, they should not be chargeable to the contract. As of May 13, 2009, however, the contractor still had not returned these funds to the mission, either as a cost reduction in subsequent billings or by cash refund.

The contractor disputed, however, that it needed to refund the subcontractor costs to the mission, even though it had withheld payment to the subcontractor. Specifically, the contractor indicated that such withholding of payment to the subcontractor was in accordance with the contract. The contractor cited a provision of the contract, under section 1.12 (Prompt Payment for Construction Contracts), stating that the contractor,

after making a request for payment to the U.S. Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, can withhold payment if it discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding.

The contractor added that, in accordance with the requirements of the contract, it had formally notified the subcontractor of the payment withheld and the reason it was withheld and had furnished the mission's contracting officer with a copy of the notice of withholding.

Furthermore, the contractor indicated that it had not returned the funds withheld but would pay interest to the mission for the amount withheld in accordance with the contract. The contract states that interest on withheld payments accrues from the eighth day after receipt of the withheld amounts from the mission until the day the subcontractor performance deficiency is corrected or the date that any subsequent certified application for payment is reduced. As of the last day of audit fieldwork, the contractor had not paid any interest to the mission—nor had it repaid the withheld amount. However, FAR 31.2 states that any cost claimed should have been incurred. In this case, the cost would seem not to have been incurred, as the contractor had questioned the subcontractor's claimed costs. In addition, the contract provision cited by the contractor to support its actions says only that the contractor can withhold payment; it does not provide that the U.S. Government should not be paid if such funds are withheld.

The mission indicated that even though it had received a copy of the notice that the contractor had withheld payment to its subcontractor, the mission considered this correspondence as an issue between the two parties. The mission claimed that the contract lacks specificity and contains certain language that does not favor the mission. The mission also stated that it needed a formal letter, addressed directly to it from the contractor, providing the details and the course of action that the contractor would take on the withheld amount. The contracting officer, who attends to a portfolio of more than \$2 billion, sent a letter on May 10, 2009, to inquire when the contractor anticipated paying the subcontractor or otherwise crediting the mission in subsequent billings, as well as to inquire about the current amount of interest due for the amount withheld.

As a result, project funds were in effect advanced by the mission to the contractor and were used for purposes that did not clearly contribute to the task order 9 objective of increasing power generation. The total amount owed to the mission by the contractor is \$2.1 million. This includes contractor costs directly associated with the funds withheld from the subcontractor: \$111,246 in general and administrative costs (overhead) and \$78,565 in fixed fees. It also includes \$22,734 in imputed interest. Imputed interest was calculated from March 4, 2009 (the eighth day after the contractor received the withheld amount from the mission as per the contract), to May 13, 2009, at a rate of 5.625 percent per annum (the interest rate according to the prompt payment provisions of 31 U.S.C. 3901–3904).

***Recommendation 8.*** *We recommend that USAID/Afghanistan recover at least \$2.1 million (including interest imputed through May 13, 2009) from the contractor.*



# EVALUATION OF MANAGEMENT COMMENTS

On the basis of an evaluation of the mission's response to the draft report, the Office of Inspector General determined that final actions have been taken on 5 recommendations, and management decisions have been reached on 3 recommendations. The status of each of the 8 recommendations is shown below.

Final action—recommendations 2, 3, 5, 6, 8  
Management decision—recommendations 1, 4, 7

For recommendation 1, the mission agreed that more training and resources are needed to help contracting officer's technical representatives prepare higher quality statements of work. The mission has approved resources for this training. The target completion date to fully close this recommendation is March 31, 2010, the date when the mission would have provided the first training course to new contracting officer's technical representatives.

For recommendation 4, the mission agreed to establish written procedures to ensure that all significant construction projects have onsite quality assurance engineers. The Office of Acquisition and Assurance issued a notice covering the construction of vertical structures. Subsequent notices covering the road and power sectors will be issued by March 31, 2010, and will enable closure of the recommendation.

For recommendation 7, the mission agreed with the recommendation and will prepare a detailed implementation plan when the security situation improves and allows work to commence on the installation of turbine 2.

We consider that management decisions have been reached on recommendations 1, 4, and 7. Determinations of final action will be made by the Audit Performance and Compliance Division upon completion of the planned corrective actions.

# SCOPE AND METHODOLOGY

## Scope

The Regional Inspector General/Manila 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 that reasonable basis. The objective of this audit was to determine whether USAID/Afghanistan was achieving its main goal of improving the availability of electrical power to Kabul and the southern provinces of Helmand and Kandahar, through power sector activities under the Afghanistan Infrastructure Rehabilitation Program.

The scope of the audit was limited primarily to the two task orders issued by USAID/Afghanistan under the Afghanistan Infrastructure Rehabilitation Program (the program), the prime contract of which was awarded to Louis Berger Inc./Black and Veatch Special Projects Corp. Joint Venture (the contractor). One task order (task order 9) was awarded in July 2007 to build a completely new diesel-powered electricity generating plant that would provide 105 megawatts of additional power to Kabul by April 2009. The other task order (task order 2) was awarded in January 2007 with an estimated completion date of June 2008. It included the refurbishment of an old turbine and the installation of a new one at an existing hydroelectric plant. These two projects were expected to deliver a total of 140 megawatts of additional electrical power to two strategically important areas of Afghanistan.

As of April 30, 2009, the combined ceiling price for these two projects was \$305.5 million (including \$2.8 million for related activities, such as demining and building a perimeter wall, specified under another task order). As of April 30, 2009, USAID/Afghanistan had obligated \$290.8 million and disbursed \$249.6 million for these two power sector activities.

The audit was performed in the Islamic Republic of Afghanistan from April 22 through May 13, 2009, and covered the program's activities implemented by the contractor through April 30, 2009. In Kabul, fieldwork was conducted at USAID/Afghanistan, the contractor's office, and one of its subcontractor's offices—Symbion Power. We also conducted visits to the 105-megawatt power plant in Kabul and the Kajakai Dam in Helmand Province.

We reviewed and analyzed the activities supporting the established goals for providing more reliable power. The contractor was reporting daily and monthly on progress toward providing more reliable power.

As part of the audit, we assessed the significant internal controls used by USAID/Afghanistan to monitor program activities. The assessment included controls related to whether the mission had (1) conducted and documented site visits to evaluate progress and monitor quality, (2) required and approved an implementation plan, (3) reviewed progress reports submitted by the contractor, and (4) compared reported

progress to planned progress and the mission's own evaluations of progress. We also reviewed the mission's fiscal year 2007 report in compliance with the Federal Managers' Financial Integrity Act of 1982 (Public Law 97-255), as well as prior audit reports, for any issues related to the audit objective.

## **Methodology**

To answer the audit objective, we interviewed officials from USAID/Afghanistan, the contractor, and one of the subcontractors. We reviewed and analyzed relevant documents at both mission and contractor offices. This documentation included performance management plans and the contract between USAID/Afghanistan and the contractor. Furthermore, we reviewed contractor site visit and other monitoring reports, progress reports, and financial records.

To determine the reliability of computer processed data received from the mission in support of its obligated and disbursed amounts, we reviewed prior audits of the mission's financial statements and internal controls. In addition, we verified the completed energy sector training, reported in the contractor's semiannual report dated March 2009, to source documents to validate data in the report.

# MANAGEMENT COMMENTS



## MEMORANDUM

**TO:** Bruce N. Boyer, Regional Inspector General/Manila

**FROM:** USAID/Afghanistan Mission Director, William M. Frej */s/*

**DATE:** October 20, 2009

**SUBJECT:** Audit of USAID/Afghanistan's Power Sector Activities under Its Afghanistan Infrastructure Rehabilitation Program (Audit Report No. 5-306-09-00X-P)

**REFERENCE:** B. N. Boyer memo dated September 22, 2009

Thank you for providing the Mission the opportunity to review the subject draft audit report and provide comments on its findings and recommendations. We appreciate the professionalism, objectivity and hard work exhibited by the audit team in conducting the assessment and preparing thoughtful recommendations. This memo describes the actions that have been taken or are planned to be taken to address the recommendations in the audit report.

### **MISSION RESPONSES TO AUDIT RECOMMENDATIONS**

***Recommendation No. 1: We recommend that USAID/Afghanistan require that its training on statement-of-work preparation be provided to all new contracting officer's technical representatives.***

The Mission agrees with this recommendation.

### **Actions Taken:**

USAID/ Afghanistan agrees that more training and resources are needed to help contracting officer's technical representatives (COTRs) prepare higher quality statements-of-work (SOWs). The Mission has approved resources for SOW training to be provided to COTRs and is in the process of establishing the appropriate contractual mechanisms for COTRs to receive the training. This course will provide training in the preparation of SOWs to improve the COTRs capacity in both technical writing and the review of SOWs. This training will be provided to all new COTRs. Based on this action, the Mission requests RIG/Manila concurrence that a management decision has been reached. The target completion date to fully close this recommendation is March 31, 2010, at which time, the Mission would have provided the first training course to new COTRs.

***Recommendation No 2: We recommend that USAID/Afghanistan develops procedures, such as the use of quality control checklists, to ensure that statements of work include such critical elements as clear deliverables with specified due dates.***

The Mission agrees with this recommendation.

**Actions Taken:**

In an effort to ensure that SOWs include such critical elements as deliverables and specific delivery dates, the Contracting Officer for the Office of Infrastructure, Engineering and Energy (OIEE) issued a Scope of Work template to all OIEE COTRs in June 2009. Said template serves as a quality control checklist that describes the required elements for the SOW, and provides detailed instruction for preparing each SOW section such as the Introduction, Background, Scope of Work, Detailed Work Requirements, Deliverables and Deliverables Schedule, Qualifications of Key Personnel, Special Considerations and References.

The section on Deliverables and Deliverables Schedule states that “The time of delivery or performance is an essential contract element and needs to be clearly stated. In any given SOW, separate completion dates need to be established for separable items of work. End products or deliverables required under the contract need to be clearly and firmly defined here and the criteria for acceptance should be given.” The assigned Contracting Officer reviews the adequacy of SOWs prepared by COTRs and checks compliance against the requirements outlined in the SOW template.

Based on these actions, the Mission requests RIG/Manila concurrence that a management decision has been reached and that the audit recommendation is closed.

***Recommendation No 3: We recommend that USAID/Afghanistan establishes procedures requiring that a labor skills assessment be performed by a contractor, either upon award of a construction contract or upon the award of a task order under the contract. The assessment would include, as appropriate but not limited to, the availability of qualified local labor, vocational training needed to cultivate local labor, and plans to coordinate with the mission to obtain appropriate visas for non-Afghan labor.***

The Mission partially agrees with this recommendation.

**Actions Taken:**

The Mission recognizes that there is often a shortage of available, qualified labor required to successfully implement construction contracts in Afghanistan. Afghanistan has a limited pool of skilled local labor and many qualified non-Afghans are not willing to face in-country security risks. As such, both the Embassy and USAID consider capacity building as an important objective of foreign assistance in Afghanistan. To help build local capacity, USAID/Afghanistan contracts almost always incorporate training and other capacity building activities for Afghan public and private organizations and individuals.

New infrastructure projects, such as the Sheberghan gas-fired power plant, include assessment of skilled workforce and vocational training needed. Modification #17 to the Task Order for the Kabul power plant also requires that the Work Plan address the personnel requirements for achieving the proposed targets. As appropriate, the Mission will assess workforce capacity in designing infrastructure projects. To better assess the availability of both local and international qualified staff on a contract, new Mission staff will be hired to perform pre-award surveys of potential contractors and their proposed personnel.

However, the Mission does not agree that a blanket procedure should be put in place that requires contractors to perform a labor skills assessment. Meaningful labor assessments are difficult to maintain in Afghanistan, given the fluidity of the workforce and the high demand for skilled labor. Instead, the Mission expects that the pre-award personnel surveys will help verify the availability of qualified staff being proposed by the contractor.

Based on these alternative compensating actions, the Mission requests RIG/Manila concurrence that a management decision has been reached and that the audit recommendation is closed.

***Recommendation No. 4: We recommend that USAID/Afghanistan establish written procedures to ensure that all significant construction projects have onsite quality assurance engineers.***

The Mission agrees with this recommendation.

#### **Actions Taken:**

On November 22, 2008, the Office of Acquisition and Assistance (OAA) issued the attached OAA Notice 09-001 requiring all offices to ensure that a Quality Assurance Surveillance Program is included during the construction of vertical structures. To cover the road and power construction activities, OAA will issue a similar notice that will define the technical standards to be observed and require quality assurance monitoring during construction.

Based on these actions, the Mission requests RIG/Manila concurrence that a management decision has been reached. The target completion date to fully close this recommendation is March 31, 2010, when OAA issues the notice requiring Quality Assurance monitoring of significant construction activities in the road and power sectors.

***Recommendation No 5: We recommend that the mission develop an overall implementation plan for the Kabul power plant project that incorporates updated construction schedules for the contractor and subcontractor, identifies delays in critical tasks and establishes steps to keep the project on track.***

The Mission agrees with this recommendation.

#### **Ongoing Actions:**

The Mission has an overall implementation plan for the Kabul power plant that targets completion of the 100 MW generators and balance of plant by March 31, 2010.

Modification #17 of Task Order #9 puts the implementation plan into operation by: 1) defining very specific deliverables and delivery dates for the different components of the power plant, 2) requiring the contractor to prepare a work plan that establishes the timeline for implementation, personnel requirements, proposed accomplishments towards achieving results, details of collaboration with counterparts and donors, management structure, proposed schedule, quality assurance/quality control plan and performance monitoring plan, 3) establishing dates for the submission of design and engineering drawings and documents, and 4) requiring the submission of specific reports.

At the October 4, 2009 Management Meeting for the Infrastructure Rehabilitation Program, the contractor presented its detailed construction schedule, and discussed how progress on each of the project components is being tracked against the schedule, based on manpower utilization. To provide an independent assessment of the progress of work, the Mission has tasked the Human Resource and Logistical Support (HRLS) Program to monitor work progress and to bring to the Mission's attention possible constraints to meeting the schedule. In addition, the COTR conducts weekly visits to the project to review the existing construction schedule, identify delays in critical tasks and determine next steps. The contractor provides daily reports on the project status.

Based on the actions taken, the Mission requests RIG/Manila concurrence that a management decision has been reached and that the audit recommendation is closed.

***Recommendation No. 6: We recommend that USAID/Afghanistan develop a comprehensive sustainability plan that includes considerations for anticipated fuel purchases as well as the impact and timing of future mission projects affecting the 105 MW plant.***

The Mission agrees with this recommendation.

#### **Ongoing Actions:**

The sustainable operation of the 100 MW Kabul power plant is of high priority to USAID/Afghanistan. The Mission is developing the contractual means for committing additional resources for all aspects of its operations and maintenance (O&M), including a continuing plant betterment program to improve long-term plant performance in all areas, and implementation of a training program to develop local skills and expertise in plant O&M. In addition, the Mission is utilizing the HRLS contract to provide quality assurance and technical oversight of progress at the 100 MW plant.

The Mission is aware that fuel purchases may need to be made before the onset of winter this year and have estimated fuel requirements for the plant's operation. However, it is expected that the Government will continue to contribute fuel for the plant. Since the initiation of the plant on August 5, the Government provided 50,343 liters of fuel to operate the plant. USAID has only purchased the fuel necessary for start-up and commissioning. To support more efficient plant operations, the Mission is increasing available fuel storage capacity at the plant from 100,000 to 6 million liters. This will be completed by the end of November 2009.

The Afghan Government formally established the new national electricity corporation, Da Afghanistan Breshna Sherkat (DABS), and in early October 2009, transferred

Government assets to DABS to initiate operations. This lays the foundation for commercialization of the country's energy sector and improved services for the Afghan people. In support of this effort, USAID is implementing the Kabul Electricity Directorate (KED) Commercialization contract to improve the commercial performance of the KED so that it can operate on a full-cost recovery basis. It is anticipated that by 2012, this contract will result in a reduction in system losses and an increase in collections and revenues that could be directed towards fuel purchases.

The Mission believes that the above ongoing actions constitute the necessary steps to ensure the sustainability of the plant as intended by the recommendation. In addition, the Mission has given full consideration to the related fuel issues, and we are confident of the government's commitment to provide sufficient fuel to the plant.

Based on the actions taken, the Mission requests RIG/Manila concurrence that a management decision has been reached and that the audit recommendation is closed.

***Recommendation No. 7: We recommend that USAID/Afghanistan prepare a detailed implementation plan that documents the current status of the Kajakai project and explains how the mission intends to proceed with installation of turbine 2, including potential barriers to successful installation of the turbine and contingency plans to overcome these barriers.***

The Mission agrees with this recommendation.

**Actions Taken:**

Installation of turbine 2 will be delayed due to the current volatile and dangerous security environment, which is preventing ground transportation of necessary equipment and material to the site and constructing a new transmission line. Insurgents control the area and the U.S. military expects that it will be several years before the Afghan National Army and coalition forces can secure the 87 km route 611 from the Ring Road to Kajakai. The Mission will continuously monitor and assess the security situation to determine whether it is feasible to proceed with the installation of turbine 2. USAID will inventory and secure the equipment currently stored at Kajakai. Furthermore, USAID will provide DABS staff with the necessary equipment, materials and training to rehabilitate and maintain the transmission line from Kajakai to Kandahar.

Until the security situation becomes sufficiently stable for work to continue on the Kajakai turbine 2 installation, work on the project is suspended. When the security situation improves and allows work to commence, the Mission will prepare a detailed implementation plan.

Based on the actions taken, the suspension of work on the project, and the current security situation, the Mission requests RIG/Manila concurrence that a management decision has been reached and that the audit recommendation is closed.

***Recommendation No. 8: We recommend that USAID/Afghanistan recovers at least \$2.1 million (including interest imputed through May 13, 2009) from the contractor.***

The Mission agrees with this recommendation.



**Actions Taken:**

Per the attached voucher, USAID/Afghanistan has recovered the amount owed from the contractor. This includes \$2,042,680 that was billed for collection and \$35,746 in accrued interest.

Based on the action taken, the Mission requests RIG/Manila concurrence that a management decision has been reached and that the audit recommendation is closed.

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