

The Afghanistan Engineering Support Program assembled this quarterly report. It is an approved, official USAID document. Budget information contained herein is for illustrative purposes. All policy, personal, financial, and procurement sensitive information has been removed. Additional information on the report can be obtained from Firouz Rooyani, Tetra Tech Sr. VP International Operations, (703) 387-2151.



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AFGHANISTAN ENGINEERING SUPPORT PROGRAM

Contract No. EDH-I-00-08-00027-00

Task Order No. 1

Fiscal Year 2016 Third Quarter Report



July 10, 2016

This publication was produced for review by the United States Agency for International Development.
It was prepared by Tetra Tech, Inc.

This report was prepared for the United States Agency for International Development, Contract No. EDH-I-00-08-00027-00, Task Order 01, Afghanistan Engineering Support Program.

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July 10, 2016

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Office of Economic Growth and Infrastructure (OEGI)
U.S. Agency for International Development
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Kabul, Afghanistan

**Re: Contract No. EDH-I-00-08-00027-00 / Task Order No. 1
Afghanistan Engineering Support Program (AESP)
Fiscal Year 2016 Third Quarter Report**

Dear [REDACTED]

Tetra Tech is pleased to submit this Third Quarterly Report for fiscal year (FY) 2016, as provided in section C.5, "Deliverables," paragraph D of the above referenced Task Order. The FY 2016 Third Quarterly (Q3) report covers the period of April 1, 2016 to June 30, 2016 for Year 7 of the Task Order.

During the third quarter of FY 2016, Tt AESP continued to perform in the role of Owner's Engineer at Kajaki Hydropower Plant (HPP), overseeing base life support, security, overall site management and logistics.

As part of AESP's Quality Assurance (QA) and Construction Management Services (CMS) Work Orders, and in partnership with USAID, Tetra Tech continues the necessary oversight to ensure that the complete scope of projects are completed on schedule and within budget and are executed according to the required project standards and specifications. These projects include the Kajaki HPP Unit 2, American University of Afghanistan (AUAF) 200-bed Women's Dormitory, Sardar Girls High School Fire Door Replacement, and the Arghandi-Ghazni Transmission Lines and Substations.

The third quarter of FY 2016 also saw Tt AESP's continued assistance with a number of active Da Afghanistan Breshna Sherkat (DABS) procurements, including Salang Tunnel Substation, completion of select rehabilitation of the Southeast Powers System (SEPS) and Ghazni-Kandahar East Transmission Lines and Substations.

Tt AESP also completed review of as-built drawing submittals of two new bridges for Phase IV of the Gardez Khost roadway and bridge construction.

We look forward to continuing our support of the USAID OEGI mission, and to strengthening our partnership while building a brighter future for Afghanistan. Please contact me at your convenience should you have any questions or comments regarding this report.

Respectfully,
Tetra Tech, Inc.

[REDACTED]

[REDACTED]

Acting Chief of Party (AESP)

cc: [REDACTED]

AFGHANISTAN ENGINEERING SUPPORT PROGRAM

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DISCLAIMER

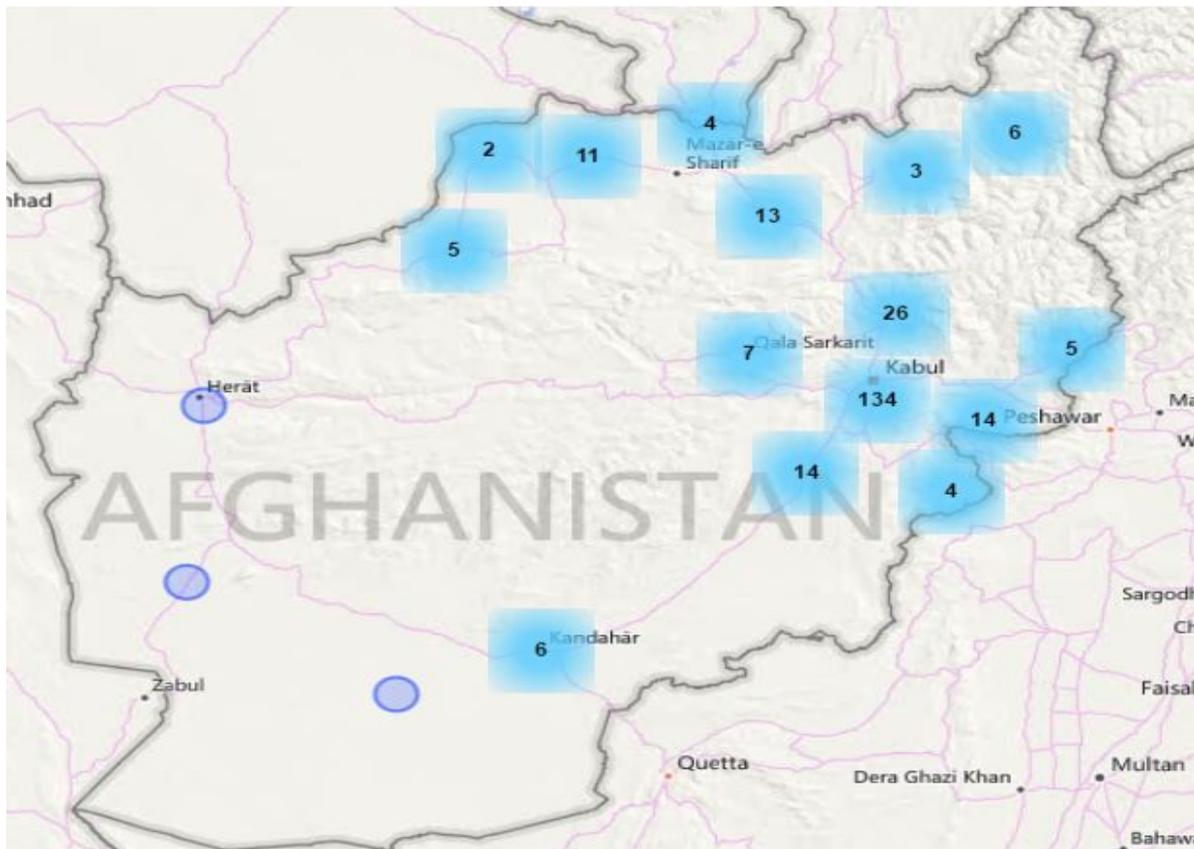
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PROJECT OVERVIEW

The Tetra Tech (Tt) Afghanistan Engineering Support Program (AESP) provides: planning, design, engineering, and technical and quality assurance oversight support to Afghanistan through collaboration and coordination and in partnership with the United States Agency for International Development (USAID), Afghanistan Office of Economic Growth and Infrastructure (OEGI). Through AESP work, Tt contributes to local national capacity building by mentoring and providing international caliber experience to our staff and partners. Tt AESP performs activities that complement and reinforce the activities and engineering expertise of USAID OEGI staff in the following sectors: Energy, Transportation, Vertical Structures, Technical Support and oversight, Water, and Water Sanitation.

Tt AESP consists of a Kabul-based core of expatriate engineering and project management professionals leading a competent staff of local Afghan engineers and support professionals. Support professionals include home office, or “reachback”, support from highly-qualified US-based staff. Our local team continues to display adaptability, mobility, and responsiveness to the needs of USAID.

- Activity Start Date: November 9, 2009
- Activity End Date: November 8, 2016
- Prime Implementing Partner: Tetra Tech, Inc.
- Teaming Partners/Sub-awardees: Power Engineers, GardaWorld, USACC, SMART Engineers
- Geographic Coverage: Afghanistan, see Figure 1 below



*The light blue squares represent multiple projects, with the number of projects provided in black text. The purple circles represent a single project.

Figure 1 2009 – 2016 Tt AESP Project Locations¹

¹ Map Source: Tt AESP’s Afghan Info Reporting Site

EXECUTIVE SUMMARY

This Third Quarter (Q3) report covers the period from April 01, 2016 to June 30, 2016. During this period, Tt AESP submitted 32 deliverables. Key deliverables this quarter included one revised energy sector Request for Proposal (RFP) including the associated technical documents and engineering cost estimates. This RFP covered the substations for SEPS Completion. Other important deliverables included the QA-CMS Biweekly and Monthly Reports, the 99% Construction Documents Interim Design Review Report, 100% Civil Partial Resubmittal Memo and 100% Partial Site Construction Documents Resubmittal memo for the AUAF Women's dormitory and the Final Evaluation Report for the investigation/analysis of failed towers in the north of Kabul, between Pul-e-Khumri to Naibabad, and Pul-E-Khumri to Kunduz. During this quarter, Tt started preparing and submitting daily and weekly QA reports for Sardar Kabuli Girls High School Fire Door Replacement QA Services and American University 200-Bed Women's Dormitory QA Services projects. Furthermore, Tt completed the review of Contractor as-built shop drawing submittals of two new bridges for Phase IV of the GK roadway and bridge construction. Also, Tt continued submitting weekly and biweekly photo submissions for the ongoing projects. These documents highlight the diversity and breadth of work that AESP has completed this quarter.

Last quarter, Tt AESP assumed the role of Owner's Engineer at Kajaki Dam, including full responsibility of base life support, security, and logistics for the Kajaki Dam site. In Q3 FY 2016, Tt further developed coordination and logistics capabilities to provide reliable base life support. Major milestones of the Kajaki Unit 2 project, including concrete works, have been completed. Additionally, installation of the stator was completed in this quarter. Despite flooding and continued security challenges, work has continued uninterrupted, and remains on track to meet the project completion date.

Importantly this quarter, Tt began provision of Quality Assurance (QA) services for the American University of Afghanistan (AUAF) 200-Bed Women's Dormitory project, and mobilized a team of three QA Inspectors to observe and record construction progress. Also during this quarter, AESP continued fulfilling its role as QA monitor and provider of Construction Management Services (CMS) for the Power Transmission Expansion and Connectivity (PTEC) Program, acting as a major stakeholder in assuring the quality construction of electricity infrastructure projects in Afghanistan.

Highlights of the quarter within each sector, noted below, exemplify AESP's diverse support of the USAID OEGI mission in Afghanistan.

Summary of Results for the Reporting Period and Key Accomplishments

Energy

A leading challenge for the development of Afghanistan is providing reliable power to all provinces. This priority is reflected in Tt AESP's work; as the majority of efforts in Q3 FY 2016 were directed towards supporting USAID OEGI through energy related work orders. The emphasis of Tt AESP's energy work orders during Q3 FY 2016 was focused on Construction Management Services (CMS) and Quality Assurance (QA) Services required during the construction phase of these projects. AESP had 10 active long-term work orders (WO-LT) and four administrative work orders (WO-A) in the Energy sector.

Kajaki Hydroelectric Power Plant (HPP)

USAID OEGI continues to prioritize the completion of Unit 2 at the Kajaki Hydroelectric Power Plant at the Kajaki Dam. Upon completion of the Kajaki HPP, Afghan people in the surrounding area will benefit through increased access, quality, and reliability of electricity.

This quarter, under WO-LT-0093 Kajaki HPP CMS, AESP continued to provide Kajaki HPP site management duties which include: camp security, logistics, and base life support (BLS). AESP also continued the role of Owner's Engineer, providing QA and CMS oversight for construction of Kajaki HPP Unit 2.

As Owner's Engineer, Tt AESP staff review engineering and material submittals, provide engineering recommendations and QA oversight, attend weekly meetings, act as a witness to site QA/QC tests, attend FAT tests and coordinate daily onsite activities.

During Q3 FY 2016, the construction contractor for Unit 2 at the Kajaki HPP has progressed in the installation of Unit 2 to meet the in-service date of September 30, 2016. During the period, the majority of civil works needed to house Unit 2 at the Kajaki HPP have been completed. Careful and detailed planning has been completed to address the management of risks that may slow progress during the forthcoming outage period needed to bring Unit 2 to commercial operation. At the end of the Q3 FY 2016, 54 percent of the Unit 2 plant activities identified within the contractor's schedule were completed. As a result, 64 percent of the construction work is now complete.

PTEC

A priority for USAID OEGI has been the Power Transmission and Electricity Connectivity (PTEC) Program. A major component of PTEC has been connecting the Northeast Power System (NEPS) to the Southeast Power System (SEPS). The NEPS-SEPS Connector will create a 220kV high voltage connection from Northern to Southern Afghanistan. The connection will allow Southern Afghanistan to secure imported power from Afghanistan's neighboring countries to the North.

During this Quarter, AESP had three active long-term work orders (WO-LT) related to the development of the NEPS and SEPS electrical systems, including WO-LT-0048 for five substations and transmission lines from Ghazni to Kandahar East, WO-LT-0083 AMD 8 for Salang Tunnel Substation, and WO-LT-0091 for SEPS Completion substations and transmission lines. Under these work orders, Tt provided tender support services to DABS. This included: observing tender and bid-related committee meetings, preparing the Bid Evaluation Report (BER) template for DABS, and observing contract negotiations.

Additionally, work continued under LT0091 AMD 1, a load flow study to determine whether the existing 110kV line from Kajaki Hydro Power Plant (HPP) to Durai Junction Substation can carry 51 Megawatts (MW) of power. During this quarter, Tt continued to integrate final USAID comments into the drafted report.

Provision of QA Services for the PTEC project have also continued under WO-LT-0092 AMD 1 Power Transmission Expansion and Connectivity (PTEC) Program Quality Assurance (QA). Tt continued PTEC Construction Management Services (CMS) responsibilities under WO-LT-0092 AMD 2 PTEC Construction Management Services (CMS). Tt AESP has focused extensively on providing QA-CMS services to the Arghandi-Ghazni Transmission Line and Sayedabad and Ghazni substations. In this quarter, significant progress was seen on the Arghandi-Ghazni Transmission Line, including the completion of 54.15km of stringing, 127 towers erected and 67 tower foundations completed. Construction activities at the substations continued for equipment foundations and the Control-switchgear buildings.

Other

In Q3 FY 2016, Tetra Tech had three Administrative Work Orders (WO-A) relating to energy. At the end of Q2 FY 2016, Tt received Notice to Proceed (NTP) for WO-A-0104 DABS 220 kV Transmission Line Tower Inspection. Throughout early Q3 FY 2016, Tt conducted an independent evaluation of the cause of failure of six towers on the 220kV transmission line from Naibabad to Pul-e-Khumri and Pul-e-Khumri to Kunduz. Tt submitted the final evaluation report to USAID at the end of Q3 FY 2016.

Under WO-A-0105, Tt AESP provided initial design of temporary power for testing and commissioning of the Arghandi to Ghazni 220kV Transmission Line. Tt engineers conducted site visits to Chimtala Substation and Arghandi Substation. Tt identified and proposed a workaround for providing temporary power to the Arghandi-Ghazni Transmission Line. The proposal was submitted to USAID as a technical memo.

Under WO-A-0106, Tt AESP is providing inspection/verification of punch list items and witnessing commissioning of systems at the Gardez and Khair Kot hospitals. After NTP was issued, Tt mobilized

two multi-discipline teams of engineers to complete the site quality assurance observation by the end of Q3 FY 2016.

Under WO-LT-0083 AMD 3 Kandahar Solar Transaction Assistance, Tt AESP provided technical assistance to the USAID off-budget project to install a 10 MW solar photovoltaic (SPV) generating plant in Kandahar. During Q3 FY 2016, Tt participated in the technical bid evaluation for Installation, Operation and Maintenance of 10MW Solar System in Kandahar.

Transportation

Tt AESP had one active transportation work order in FY 2016 Q3 dealing with reviews of as-built bridge shop drawings for the road from Gardez to Khost.

For AESP Work Order LT-0084 Gardez to Khost (GK) Road Phase 4, Tt Kabul and Tt Reachback provided engineering consultant reviews for the contractor's as-built shop drawings of two bridges within this road project. Tt Kabul also created bound record sets of the bridge structures for delivery to USAID. The creation and delivery of the bound bridge record drawings signified the completion of the 100 KM GK Road project, one of the most significant Afghan roadway project completed by USAID. This work order was completed during this quarter.

Vertical Structures

AESP had three active work orders in the Vertical Structures' Sector. These include Work Order LT-0082 AMD 1 the American University of Afghanistan (AUAF) Women's Dormitory; Work Order LT-0082 AMD 2 Sardar Girls' High School Fire Door Replacement; and Work Order LT-0082 AMD 3 the American University of Afghanistan (AUAF) Women's Dormitory QA Services.

Under WO-LT-0082 AMD 1 AUAF Women's Dormitory, Tt is performing multi-disciplinary QA design reviews of the construction contractor's proposed designs for the 200-bed women's dorm. This has included reviews of the 99% Design package and the 100% Partial Site Construction Documents Design Package. During this quarter, Tt provided QA review of the submittal log, design review comments, and recommendations for resubmittal when necessary. Tt is holding ongoing coordination meetings with the Design/Build Contractor to assist the contractor in addressing and closing the 350 open design comments and facilitate the advancement the design to completion.

Under WO-LT-0082 AMD 2 for Sardar Girls' High School Fire Door Replacement, Tt received documents for review and information during this quarter. The work on site began with the demolition of the existing third floor doors. During FY 16 Q3, Tt began to serve as the QA site monitor by observing all activities accomplished at site and reporting progress to USAID.

Under WO-LT-0082 AMD 3 AUAF Women's Dormitory Construction QA Services, Tt is providing QA for the construction of a new 200 Bed Women's Dormitory on its campus in Kabul, Afghanistan. Tt is currently reviewing and making recommendations to USAID for acceptance of construction submittals, as well as providing QA reports.

Water Resources and Water Sanitation

During this Quarter, AESP had no active work orders in either of the Water Sectors. Tt is available should any new work orders concerning water resources or water sanitation be issued.

Technical Support and Oversight

Technical Support and Oversight includes work orders that allow AESP to provide technical assistance and solution to USAID as the need arises. This includes work orders that cross multiple sectors. Technical Support and Oversight Services work orders exhibit AESP's flexibility, mobility, depth of activities, and commitment to capacity building and gender equality.

This quarter, AESP provided additional technical support to USAID under two long-term work orders. WO-LT-0065 provides media assistance to USAID. This work order continues to submit weekly and biweekly photos demonstrating the progress of construction on the Arghandi – Ghazni Transmission

Lines and Substation, Salang Tunnel Substation, Kajaki Dam, Kandahar Solar Transaction, AUAF 200-Bed Women's Dormitory and Sardar Kabuli Girls' High School Fire Door Replacement projects.

The Afghan Women Internship Program, under long term Work Order WO-LT-0042, exemplifies AESP's commitment to capacity building and gender equality. The Afghan Women Internship Program supports the technical and professional development of female students in their final years of university engineering studies. Under the direct supervision and mentorship of Tt professional expats and local professional staff, the program provides opportunities for practical training, exposure to real-world engineering experiences, and an avenue to strengthen communication skills. For the 2016 academic year, Tt hired eight female engineering interns. These eight interns include five architects, one civil and two electrical engineering students from Kabul University and Kabul Polytechnic University.

Capacity Building

Tt AESP is dedicated to USAID's mission of capacity building. Since the inception of the Task Order, Tt AESP has focused on training AESP's local staff to strive to meet international standards, not only in their chosen professions. Tt staff in Kabul, Kajaki, and in the field have received health & safety training in a variety of ours, including emergency response, health and safety plans, incident, injury and near-miss reporting, hazard control measures, ergonomics and proper manual lifting procedures.

Due to Tt's commitment to capacity building, the composition of the staff has gradually shifted from a mostly expatriate staff to a highly capable local national staff which currently comprises approximately 83% of Tt AESP's employees, up one percent from the previous quarter.

Accordingly this quarter, Tt's professionals continued to take an active role in growing DABS' abilities by providing advice in the implementation of new National Procurement Laws applicable to bid evaluation processes and through two embedded personnel at DABS' Headquarters.

Constraints and Critical Issues

Security concerns did not prevent Tt AESP from completing its mission this quarter, however kinetic activities have impacted the movement of AESP' NEPS to SEPS site inspectors.

Kinetic activity along the Arghandi-Ghazni Transmission Line has resulted in battle damage to select structures. Tt will continue to monitor such events to identify causal relationships and provide recommendations for mitigation.

As part of the ongoing work at Kajaki HPP, Tt's Security Team has continued to coordinate with Afghan Personnel Protection Forces (APPF) and Afghan National Army (ANA) to remain vigilant and aware of security threats in the area. Thus far, security concerns have not significantly impacted Tt field operations at Kajaki HPP.

Tt continues to increase security efforts through more extensive focused daily security briefings and continued involvement of Tt's Security Team in logistical planning and movement. Tt will continue to respond to the evolving security conditions to ensure the safety of our personnel.

Conference facilities at the Tt Villa remained available as a practical option for USAID to hold business meetings with other implementing partners and Afghanistan stakeholders. Using the Tt Villa facilities mitigates the security risks associated with travel around Kabul during periods of unpredictable insurgent activity. Tt AESP will continue to provide hosting capabilities for USAID meetings.

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ACRONYMS

A/E	Architect and Engineer
ACOR	Alternate Contracting Office Representative
ADB	Asian Development Bank
AESP	Afghanistan Engineering Support Program
AMD	Amendment
ANA	Afghan National Army
APPF	Afghan Personnel Protection Forces
AUAF	American University of Afghanistan
BEC	Bid Evaluation Committee
BER	Bid Evaluation Report
BLS	Basic Life Support
CM	Construction Management
CMS	Construction Management Services
DABS	Da Afghanistan Breshna Sherkat
EB	Estimated Budget
EDMS	Electronic Document Management Services
FY	Fiscal Year
GK	Gardez to Khost Road
HPP	Hydro Power Plant
IBC	International Building Codes
LN	Local National
LOE	Level of Effort
MIS	Management Information System
MW	Megawatt
NEPS	Northeast Power System
NPA	National Procurement Authority
NTP	Notice to Proceed
OBM	On-Budget Monitor
OEGI	Afghanistan Office of Economic Growth, and Infrastructure
POC	Point of Contact
PTEC	Power Transmission Expansion, and Connectivity
QA	Quality Assurance
QC	Quality Control
RFI	Request for Information
RFPs	Request for Proposals
RIF	Reduction in Force
ROM	Rough Order of Magnitude cost estimate
SCADA	Supervisory Control and Data Acquisition
SEPS	Southeast Power System
SOO	Statement of Objective
SOW	Scope of Work
SPV	Solar Photovoltaic
Tt	Tetra Tech
USACE	United States Army Corps of Engineers
USAID	United States Agency for International Development
WO	Work Order
WO-A	Administrative Work Order
WO-LT	Long Term Work Order
WP	Work Plan

1.0 ACTIVITY IMPLEMENTATION

1.1 KEY ACTIVITIES ACCOMPLISHED DURING THE YEAR

Tt AESP is responsible for planning, designing, and providing technical support and oversight of assigned USAID OEGI's infrastructure projects and related engineering activities in Afghanistan. In accordance with the basic USAID OEGI Architect and Engineer (A/E) IQC contract statement of work, AESP creates work orders (WO) to identify individual projects.

Work orders fall into one of two categories: administrative (A) or long-term (LT). Administrative work orders are defined as tasks requiring a total level of effort (LOE) less than or equal to 18 business days (144 work hours). Long-term work orders are defined as activities requiring a total LOE exceeding 18 business days. For each long-term work order, Tt AESP prepares and submits a Work Plan (WP) and an Estimated Budget (EB).

Tt AESP supports USAID OEGI's mission throughout Afghanistan using both administrative and long term work orders. For tracking purposes, work orders are broken into one of the following sectors: Energy, Vertical Structures, Transportation, Water Resources, Water and Sanitation, and Technical Support as stated in Tt AESP's Year 7 Work Plan. This quarter, Tt AESP provided support under 14 work orders in the Energy Sector, three (3) work orders in Vertical Structures, one (1) Transportation work order and two (2) Technical Support and Oversight work orders. Hence, the majority of AESP work orders and subsequent work was within the energy sector for the third quarter of fiscal year 2016. Table 1.1 below describes the work order activities performed during the third quarter of FY 2016.

Table 1.1 Summary of Work Completed During the Third Quarter of FY 2016

Number	Work Order Title	Summary of Work Completed
WO-A-0101	Tarakhil Power Plant SCADA Upgrade Review	Tt submitted to USAID a technical memo reviewing the proposed Work Plan and Schedule created by DABS on December 10, 2015. Additionally, Tt further reviewed and submitted additional comments to the proposed work plan and schedule on February 24, 2016. This work order remained open throughout Q3 FY 2016, awaiting action from DABS to perform the upgrades. No upgrades were performed, and this work order was closed on May 23, 2016.
WO-A-0103	Bulk Metering Bid Assistance	No assistance was requested in Q3 FY 2016. This work order was closed on May 2, 2016.
WO-A-0104	DABS 220 kV Transmission Line Tower Inspection	Tetra Tech submitted a draft Investigation Report to USAID on April 17, 2016. This report contained a list of additional information required from DABS in order to conduct a more comprehensive analysis. Though not all of this information was received, Tetra Tech submitted the Final Investigation Report to USAID on June 6, 2016. At USAID's direction, Tetra Tech also sent a final email to DABS requesting all outstanding information. This work order remains open, pending any additional information received from DABS.
WO-A-0105	Arghandi-Ghazni 220kV Transmission Line Power Supply Site Visits	Tetra Tech Engineers conducted site visits to Chimtala and Arghandi substations, on April 10, 2016, and April 13, 2016, respectively. Following

		these site visits, Tetra Tech identified a proposed workaround for providing a temporary power supply to the Arghandi-Ghazni 220kV Transmission Line. This proposed workaround was described in the <i>Temporary Power Supply Arrangement Technical Memo</i> , submitted to USAID on May 1, 2016. This work order was closed on May 9, 2016.
WO-A-0106	Inspection/Verification of Outstanding Punch List Items Rectification and Witnessing T&C of Systems at Gardez and Khair Kot Hospitals	Tetra Tech submitted the Confirmation Letter for WO-A-0106 on June 12, 2016 and received NTP from USAID on June 21, 2016. Tetra Tech Inspection Teams visited Gardez 100-Bed Hospital on June 25, and visited Khair Kot 20-bed Hospital on June 30, 2016 and began drafting a report to USAID.
WO-LT-0042 AMD 5	Afghan Women Internship Program	Interns received trainings in MS Project, Adobe Photoshop, Effective Technical Writing, Effective Presentation, International Building Codes (IBC) and electrical engineering. Interns also worked with AESP engineers gaining hands-on experience by performing submittal reviews and observing construction materials' testing at laboratories around Kabul. The interns also participated in site visits to the Sardar Kabuli Girls' High School Fire Doors' Replacement project.
WO-LT-0048 AMD 4 and AMD 6	Qarabagh to Kandahar East Five Substations - RPC At Kabul and Kandahar East	Previously, bids were received in response to a tender for the five substations and reactive power compensation in Kabul and Kandahar East. A Bid Evaluation Committee (BEC) was formed by DABS. In Q3, Tt acted as an observer and, when requested, as an advisor to the BEC. Tt attended all BEC meetings and assisted in preparing the Bid Evaluation Report (BER). The draft contract was sent to USAID for review on June 14, 2016. USAID provided comments on the draft contract and sent the On Budget Monitor (OBM) consent letter on June 20, 2016
WO-LT-0048 AMD 5	Transmission Line from Ghazni to Kandahar East	During this quarter, acted as an observer and, when requested, as an advisor to the Bid Evaluation Committee (BEC) formed by DABS in accordance with the National Procurement Law. Tt attended all BEC meetings and assisted in preparing the Bid Evaluation Report (BER). DABS Procurement verified documents submitted by the bidders. Tt continued participation as observers and facilitators to the Bid Evaluation Committee. The draft final BER was sent to USAID for review on June 30, 2016.
WO-LT-0059	NEPS System Protective Relay	USAID requested a SOW and ROM to deliver protective relaying coordination studies to key portions of Afghanistan's NEPS medium voltage and high voltage electrical grid. This work continued

		to be on hold throughout this quarter, and was closed May 23, 2016.
WO-LT-0063 AMD 8	Salang Tunnel Substation Combined RFP and Transformer Vector Modification	During this quarter, the verification of bidders was completed by DABS' Procurement Department on March 30, 2016. Throughout Q3 FY2016, Tt continued to provide bid assistance to DABS as observers to contract negotiations and in coordinating submission of the final Bid Evaluation Report and final negotiated contract to USAID, including the incorporation of USAID comments into both documents.
WO-LT-0065	Media Assistance	This quarter, Tt continued submitting construction progress photos of the Kajaki HPP, Arghandi-Ghazni transmission lines, substations, and other active work orders on a bi-weekly basis. Tt also continued submitting weekly photos of site construction per USAID's request.
WO-LT-0070 AMD 4	Tarakhil Power Plant Power Block A, B and C Controls Repair	This work order continued to be on hold through Q3 FY 2016, and was closed on May 23, 2016.
WO-LT-0070 AMD 6	Phoenix Support at Tarakhil	Tt was asked to provide technical assistance to Phoenix at the Tarakhil Power Plant. This work order continued to be on hold through Q3 FY 2016, and was closed on May 23, 2016.
WO-LT-0082 AMD 1	American University of Afghanistan (AUAF) Women's Dormitory	USAID asked Tt to provide engineering design review and construction phase technical review services for the new 200 bed Women's Dormitory at the American University of Afghanistan (AUAF). During this quarter, Tt completed and returned the 100% Partial Site Construction Documents' Design Review Rev3, the 99% Design Review Package Rev0, and the Submittal Register Rev1 to the design-build contractor, Perez.
WO-LT-0082 AMD 2	Sardar Kabuli Girls' High School Fire Door Replacement Quality Assurance Services	Tt has performed QA inspections and provided daily reports to USAID on all of the contractor's onsite progress from June 2, 2016 through June 30, 2016. Activities performed by the USAID contractor (Perez) included demolition of all old doors, new fire doors frame installations, CMU works and their curing.
WO-LT-0082 AMD 3	American University of Afghanistan Women's Dormitory Quality Assurance	Tt field QA staff mobilized to the construction site on May 26, 2016 and performed an inventory inspection of the Perez field office and the Tt QA field office provided by Perez. Tt QA team attended on-site weekly progress meetings. Tt is providing monitoring and reporting of Perez' compliance/implementation of approved plans, including the Perez QC Plan, Security Plan, Environmental Plan and Health & Safety Plan. Construction activity this quarter focused on the

		excavation of the sewer system, electrical line trench and backfilling of the sewer trenches.
WO-LT-0083 AMD 3	Kandahar Solar Transaction Assistance	Tt participated in the technical bid evaluations for Installation, Operation and Maintenance of 10MW Solar System in Kandahar, from May 3 to May 5, 2016 at the USAID compound. Tt completed the technical evaluation for all bidders, including submission of the Final Evaluation Report to USAID. This work order was closed on May 30, 2016.
WO-LT-0084	G-K Road Phase 4	Tt continued to support OEGI through the review of Contractor as-built shop drawing submittals for Phase IV of the GK roadway and bridge construction. During this quarter, Tt has reviewed as-built drawings of two new bridges and made the final submittal of all required contractual deliverables for this work order. This work order was closed on April 25, 2016.
WO-LT-0091	SEPS Completion	Throughout this quarter, Tt continued to provide bid assistance to DABS through processing technical Requests for Information (RFI). Tt participated as an observer to the BEC starting on June 8, 2016 for both the substations and transmission line bid evaluations. Preliminary, technical and financial evaluations continued throughout the last month of Q3 FY 2016.
WO-LT-0091 AMD 1	Kajaki-Durai Junction Transmission Line	The Task 5 Overall Technical Assessment was revised based on USAID comments and submitted as a draft to USAID for further review on June 12, 2016. Tt received comments on the draft report from USAID on June 17, 2016. Tt again submitted a second draft report to USAID on June 21, 2016; and received further comments from USAID on June 27, 2016.
WO-LT-0092	Power Transmission Expansion and Connectivity (PTEC) Program Oversight	As part of this base Work Order, Tetra Tech has provided electronic document management services (EDMS) to PTEC and Kajaki projects. Tt has continued use of the ProjectWise system for Kajaki HPP, and continued the set-up of ProjectWise for Arghandi-Ghazni Transmission Line and Ghazni and Sayedabad substations.
WO-LT-0092 AMD 1	Power Transmission Expansion and Connectivity (PTEC) Program Quality Assurance (QA)	During this reporting period, Tt provided QA services for the Arghandi, Sayedabad, and Ghazni Transmission Line and Substations projects. Part of the QA activities included the development and release of a tender for tower bolt torque testing and tower climbing inspection. The bidder selected initiated the torque testing during the last month of the quarter. Daily reports on the torque testing are completed by the Tt site inspectors.

WO-LT-0092 AMD2	Afghanistan Power Infrastructure Construction Management Services (CMS)	Tetra Tech provided Construction Management Services to the Arghandi, Sayedabad, and Ghazni Substations and Transmission Line projects. In this quarter, significant progress was made on the Transmission Line, including the completion of 54.15km of stringing, 127 towers erected and 67 tower foundations completed. Construction activities at the substations continued for equipment foundations and the Control-switchgear buildings.
WO-LT-0093	Kajaki Hydroelectric Power Plant (HPP) Construction Management Services (CMS)	<p>This quarter, under WO-LT-0093 Kajaki CMS, AESP continued to manage the Kajaki HPP site, which includes camp security, logistics, and base life support (BLS) services. Tetra Tech continued providing helicopter services with an MI8-MTV.</p> <p>During Tetra Tech’s time as Owner’s Engineer and provider of CMS and QA services, the construction contractor for the Kajaki HPP increased welding works. Also during the reporting period, hydrostatic testing and the installation of the spiral case (including concrete pouring) were completed.</p> <p>Tt provided CMS and QA services for all concrete placements for stages S-06 B and C, S-07, S-08, S-09 A-B and C, S-10, S-11, and S-12 and for GSU transformer blast wall. Tt QA inspectors performed generator and turbine shaft measurements as per procedures recommended by the testing subcontractor.</p> <p>Also in this quarter, Tt designed and procured electrical items for Kajaki site generators power supply, in preparation for the scheduled plant outage.</p> <p>Furthermore, Tt provided QA services for the major 100 percent completed milestone activities and critical path activities to ensure on-time completion.</p>

1.2 KEY ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

Table 1.2 below describes the activities planned for the fourth quarter. Actual work performed will be described in detail in the fourth quarterly report.

Table 1.2 Summary of Work Planned for the Fourth Quarter of FY 2016

Number	Work Order Title	Summary of Work Planned
WO-A-0104	DABS 220 kV Transmission Line Tower Inspection	This work order has been kept open at the direction of USAID, in the event that DABS provides additional information requested by USAID. If no additional information is received, this work order will be closed at the beginning of Q4 FY 2016.
WO-A-0106	Inspection/Verification of Outstanding Punch List Items Rectification and	Tetra Tech will submit the Final Report for WO-A-0106 to USAID in the start of Q4 FY 2016. Tt

	Witnessing T&C of Systems at Gardez and Khair Kot Hospitals	will remain available to resolve any required items until this work order is closed.
WO-LT-0042 AMD 5	Afghan Women Internship Program	<p>In Q4, the internship program will continue with additional on-the-job training, site visits and shadowing opportunities. In the next quarter, interns will conduct site visits to AUAF and continue site visit to Sardar Kabuli Girls' High School. Interns will continue to review the submittals, to compare as-built drawings and shop drawings and to complete some other related engineering and architecture works. It will coordinate with USAID to arrange site visit to construction sites at the US Embassy.</p> <p>In the next quarter, It interns will participate in construction material training (both theoretical and practical) including testing of construction materials at the laboratory.</p>
WO-LT-0048 AMD 4 and AMD 6	Qarabagh to Kandahar East Five Substations - RPC At Kabul and Kandahar East	It AESP will continue to provide bidding support services to USAID and DABS through the award of contract to the successful bidder. Tetra Tech will also provide support during contract negotiations. The Contract is anticipated to be awarded by DABS in FY 16 Q4.
WO-LT-0048 AMD 5	Transmission Lines from Ghazni to Kandahar East	It AESP will continue to provide bidding support services to USAID and DABS through the award of contract to the successful bidder. Tetra Tech will also provide support during contract negotiations. This Contract is anticipated to be awarded in FY 16 Q4.
WO-LT-0063 AMD 8	Salang Tunnel Substation Construction Combined RFP/ Transformer Vector Group Modification	It AESP will continue to provide bidding support services to USAID and DABS through the award of contract to the successful bidder. The Contract is anticipated to be awarded by DABS in FY 16 Q4.
WO-LT-0065	Media Assistance	Tetra Tech will continue to submit construction progress photos and captions to USAID on a weekly and Biweekly basis. Tetra Tech will also continue to provide media assistance to USAID as the need arises.
WO-LT-0082 AMD 1	American University of Afghanistan (AUAF) Women's Dormitory	Tetra Tech will complete reviews at the 99% and 100% design review phases. It expects complete the Final Report during Q4 FY 2016.
WO-LT-0082 AMD 2	Sardar Kabuli Girls' High School Fire Door Replacement Quality Assurance Services	Tetra Tech estimates the Contractor to install the door panels early in Q4 FY 2016. The project is projected to end in the next quarter, at which time, Tetra Tech will complete the final inspection and submit the final report.

WO-LT-0082 AMD 3	American University of Afghanistan Women's Dormitory Quality Assurance	Tt will continue to provide QA monitoring on the construction site. Tt will continue to provide technical QA engineering services by: daily on site QA Monitoring, providing review and comments of construction aid plans and construction product submittals, and verifying invoices.
WO-LT-0091	SEPS Completion	Tt AESP will continue to provide bid support services to USAID and DABS. Both substation and transmission line bid evaluations are expected to be completed early in Q4 FY 2016. Tetra Tech will also provide support during contract negotiations.
WO-LT-0091 AMD 1	Kajaki-Durai Junction Transmission Line	Tetra Tech expects to submit Rev3 of the final report early in Q4 FY 2016.
WO-LT-0092	Power Transmission Expansion and Connectivity (PTEC) Program Oversight	Tt will continue to maintain and utilize ProjectWise for the Kajaki HPP project, and will complete set up and utilization of ProjectWise for Arghandi-Ghazni Transmission Line and Ghazni and Sayedabad substations.
WO-LT-0092 AMD 1	Power Transmission Expansion and Connectivity (PTEC) Program Quality Assurance (QA)	Quality Assurance work is expected to expand to other construction projects when these contracts are awarded to construction contractors. Possible contracts include Salang Tunnel Substation and Ghazni to Kandahar East substations and transmission lines.
WO-LT-0092 AMD 2	Afghanistan Power Infrastructure Construction Management Services (CMS)	Construction Management Services are expected to expand to other construction projects when these contracts are awarded to construction contractors. Possible contracts include Salang Tunnel Substation and Ghazni to Kandahar East substations and transmission lines. Along the Arghandi-Ghazni Transmission Line and substations, Tt AESP will continue to provide oversight for the remaining tower foundations and structures, stringing activities, and construction works at the substations.
WO-LT-0093	Kajaki Hydroelectric Power Plants Construction Management Services	<p>Tetra Tech will continue to provide CMS and QA oversight, and prepare for the mechanical and electrical outage which will begin in Q4 FY 2016. Tt will also undertake the tunnel inspection and prepare the summary report of tunnel inspection in Q4 FY 2016. Tt will continue to coordinate transport from Kandahar to Kajaki for materials and personnel in support of BLS for the installation of Kajaki Unit 2.</p> <p>Tt will supply fuel to run diesel generators for the scheduled electrical and mechanical outage period. Additionally, Tt will complete electrical installation work to connect the diesel generators to the Kajaki Camp power system. The impact of</p>

		<p>the outage on and ensuing response from the local populace is unknown.</p> <p>The currently estimated project completion date remains September 30, 2016. Tetra Tech AESP will continue to provide QA and CMS for the Kajaki HPP until project completion.</p>
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1.3 LESSONS LEARNED

In accordance with the contract, AESP submits an evaluation form after the completion of all work orders in order to obtain feedback to help improve performance on future work orders for this project. This quarter, eight evaluations have been submitted to the relevant USAID Point of Contact (POC), including WO-LT-0084, WO-A-0101, WO-A-0103, WO-A-0105, WO-LT-0070 AMD4, WO-LT-0070 AMD6, WO-LT-0059 and WO-LT-0083 AMD3. It had received seven returned evaluations from USAID by the end of this quarter. However, four of these evaluations had been submitted to USAID during previous quarters. Out of the seven returned evaluations, one was exceptional, four were above average and two were marked satisfactory. These evaluations form the basis of Tt's analysis for lessons learned and allow for continuous improvement of AESP's work. From the feedback received and internal assessment, AESP became aware of the need to improve performance in the area of deadlines, and has taken active steps to improve performance in this area. This quarter, AESP excelled in the delivering well written, thoroughly researched and carefully inspected reports, and will maintain this standard moving forward.

1.3.1 Monitoring and Evaluation (M&E)

The primary goal of this project is to provide essential engineering support to the USAID Afghanistan Mission through a variety of activities and projects. As AESP acts as an extension of USAID in many of these activities, AESP's ability to monitor and evaluate our direct impacts on the beneficiaries of these programs is somewhat limited. Indicators, Targets and Results are provided below:

Table 1.3 Monitoring and Evaluation

Number	Indicator	FY 2016 Q3 Results	FY 2016 Target
I-1	Person hours of training completed in technical energy fields supported by USG assistance	358 hours	100 hours
I-2	Number of days of USG funded technical assistance in technical energy fields provided to counterparts of stakeholders	248 days	100 days
I-3	Percent of all contracts awarded for commodities and equipment that are fixed price.	100%	100%
I-4	Percent of all other types of contracts (i.e. services) awarded that are fixed-price.	100%	100%

2.0 COLLABORATION WITH GIROA, OTHER DONORS, OR OTHER USAID PROJECTS

2.1 LINKS WITH RELEVANT GIROA MINISTRIES

Tt AESP collaborated with DABS on numerous projects, including the NEPS-SEPS connector, Salang Tunnel Substation, and SEPS Completion. In addition, Tt AESP continued to provide assistance to, and

coordinated with, DABS commercial contractors: Fluentgrid Ltd., KEC International Contractor, and 77 Construction Company.

2.2 LINKS WITH OTHER DONOR AGENCIES

AESP continues to take direction from USAID when coordinating with other donor agencies. AESP continued coordination with the United States Army Corps of Engineers (USACE) on the SEPS completion project and Tower Failure Inspection, and with USACE and the Asian Development Bank (ADB) on the Arghandi-Chimtala Transmission Lines and Substations project.

2.3 LINKS WITH OTHER USAID PROJECTS

No significant events or activities to report during this quarter.

3.0 MANAGEMENT AND ADMINISTRATIVE ISSUES

3.1 PERSONNEL

There were several changes to personnel in Tetra Tech AESP during this quarter. Two new expatriates were hired. One expatriate filled the position of Deputy Chief of Party and one expatriate filled the role of Fuels Manager at Kajaki. The interim Kajaki MIS Manager / Technical Writer, CMS Deputy Director, and Deputy Chief of Party for Kajaki QA & CMS demobilized. The Senior Mechanical Engineer for Kajaki was reassigned to fill the role of Deputy Chief of Party for Kajaki QA & CMS. The Kajaki MIS Manager / Technical Writer will not be backfilled, nor will the Senior Mechanical Engineer Position.

There were also key changes in Local National Staff this quarter. Tetra Tech hired a new Deputy Director CMS (replacing the expatriate employee in this role). To support WO-LT-0082 AMD 3, Tetra Tech hired three new QA Inspectors and one HSE Inspector. To support WO-LT-0093 Kajaki CMS, AESP hired one Project Site Inspector, one Electrical Site Inspector, and two QA Inspectors. Additionally, AESP hired one Project Cost Scheduler, one HR Manager, two HR Administrative Assistants and one cook. During this quarter, Tetra Tech AESP promoted two LN staff. The Facilities Manager was promoted to Facility/External Affairs Manager and a Project Site Inspector was promoted to Senior Project Site Inspector.

Tt's HR Manager resigned on May 30, 2016, and this position was filled on June 8, 2016. The HR Administrative Assistant resigned on April 10, 2016, and this position was filled on May 26, 2016. Additionally, as reflected in the draft Closeout Plan submitted to USAID on May 27, 2016, five LN employees received Reduction in Force (RIF) notices on June 25, 2016. Their last day of work was July 9, 2016.

Gender equality plays an important role in staff planning at AESP. During this quarter, Tt AESP's gender percentages changed from 79% male and 21% female employees to 82% male and 18% female employees. Tetra Tech's percentage of female employees has decreased due to changes in project scope: field work has increased as a result of QA and CMS activities and women are unable to complete site visits to remote locations due to security conditions, and the Kajaki Project work requires staff to stay overnight at the Kajaki HPP site which culturally is not an option for female employees at this time. Tt AESP will continue to support USAID's gender equality and female empowerment directive through the remainder of the task order.

3.2 ADAPTION OF THE ACTIVITY

No significant adaptations or changes were made to the activities of AESP during the third quarter of FY2016. Tt AESP continues to deliver QA and CMS services, and to provide assistance to DABS in the bid evaluation process. When these contracts are awarded, AESP will move from bid support to implementation, supporting these projects with QA and CMS oversight. AESP continues to adapt to

meet the needs of USAID, but has shifted focus to closeout activities during the final months of the project.

3.3 MODIFICATIONS AND AMENDMENTS

Previously, AESP had one modification to Contract No. EDH-I-00-08-00027-00 Task Order No 1: modification number 25. Mod 25 extended the contract end date to November 8, 2016, and provided increased LOE and budget for Year 7. No additional modifications or amendments occurred this quarter.

4.0 SUCCESS STORIES

Following is Tetra Tech AESP's Success Story for the Third Quarter of FY 2016. The success story details the beneficial impact of the partnership between USAID and DABS, beginning with the DABS/USAID Coordination Retreat coordinated by AESP. This success story demonstrates the accomplishments of increased collaboration between DABS and USAID. It also emphasizes the increased ability of the two parties to effectively and rapidly respond to urgent energy needs, as exemplified by the restoration of power to 105,000 people in Kandahar and Helmand provinces only five days after the original power outage.



USAID
FROM THE AMERICAN PEOPLE

AFGHANISTAN

SUCCESS STORY

USAID-DABS Coordination



DABS and USAID worked together to ensure that a functioning circuit breaker was installed at the Kajaki Hydroelectric Power Plant (HPP).

“...DABS and USAID were able to restore the supply of power to universities, schools, hospitals and family homes within five days of the outage.”

A one day coordination retreat between USAID and Da Afghanistan Breshna Sherkat (DABS) was held on January 23, 2016 to promote partnership and increase collaboration between the two parties. The retreat offered DABS the opportunity to identify specific challenges to performance, and develop action plans to address each area of concern and establish Measures of Effectiveness (MOEs) to track results.

During the retreat, DABS participants discussed their long term vision for success and lessons learned from previous experiences. USAID participants shared ideas and strategies for increasing transparency at DABS and strengthening communication.

These actions will contribute to providing improved electric power services to Afghanistan, as DABS and USAID continue to work together to increase domestic power production.

Organized and facilitated by USAID's Afghanistan Engineering Support Program (AESP), the retreat established a strong foundation for future collaboration between DABS and USAID.

The benefit of increased coordination between the two has been visible since the retreat, in regular communication and support of future energy projects. Another advantage of this improved partnership is the ability of DABS and USAID to respond rapidly to urgent energy needs.

An example of this rapid response was seen on June 26, 2016, when one of the circuit breakers at the Kajaki Dam caught fire, cutting off power to the people of Kandahar and Helmand provinces.

Within hours, DABS located a spare circuit breaker that was being stored at one of their warehouses in Kandahar. After locating the replacement parts, DABS coordinated with USAID to transport all necessary replacement components on the helicopters being used for the USAID Kajaki Dam project. Additionally, two DABS engineers were flown to Kajaki in these helicopters to remove the broken circuit breaker and install the replacement.

Through the strong partnership and comprehensive coordination established by the retreat, DABS and USAID were able to restore the supply of power to universities, schools, hospitals and family homes within five days of the outage.

This collaboration ensured that 105,000 Afghans in Kandahar and Helmand provinces had electricity during Eid-ul-Fitr.

USAID Afghanistan

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