

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**

# AFGHANISTAN ENGINEERING SUPPORT PROGRAM

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

Task Order No. 1

## Fiscal Year 2016 First Quarter Report



January 11, 2016

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

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**Principal Contacts:**

[REDACTED]	[REDACTED]	[REDACTED]
Tetra Tech, Inc. Arlington, VA	Tetra Tech, Inc. Marlborough, MA	Tetra Tech, Inc. Marlborough, MA
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]  
Chief of Party  
Tetra Tech, Inc.  
Kabul, Afghanistan  
[REDACTED]



January 11, 2016

[REDACTED]  
[REDACTED]

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

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

Dear [REDACTED],

Tetra Tech is pleased to submit this 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 Quarterly report covers the period of October 1, 2015 to December 31, 2015 for Year 6 and Year 7 of the Task Order.

AESP was scheduled to close at the end of Year 6, but in the fourth quarter, the project was extended one more year. During the first quarter of FY 2016, Tetra Tech AESP was heavily involved in the bidding processes for PTEC projects, having submitted three revised Request for Proposals (RFPs), for the transmission line and substations for SEPS Completion and the transmission lines for the NEPS-SEPS Connector. However, the first quarter of FY 2016 saw a shift from the support of the bidding processes to becoming a major stakeholder in assuring the quality construction of infrastructure projects in Afghanistan.

As part of AESP's Quality Assurance (QA) and Construction Management (CM) Work Orders, Tetra Tech now provides the necessary oversight to ensure that projects are on schedule, on budget and are executed according to project standards and specifications for the Kajaki Dam and the Arghandi-Ghazni Transmission Lines and Substations projects. This shifting emphasis toward project construction implementation will comprise the majority of AESP's work going forward. This new and exciting direction will require a significant increase to our existing staff and infrastructure, but AESP looks forward to the opportunity to ensure these projects are completed successfully.

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]

Chief of Party (AESP)

cc: [REDACTED]  
[REDACTED]  
[REDACTED]

# AFGHANISTAN ENGINEERING SUPPORT PROGRAM

Contract No. EDH-I-00-08-00027-00  
Task Order No. 1

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## **DISCLAIMER**

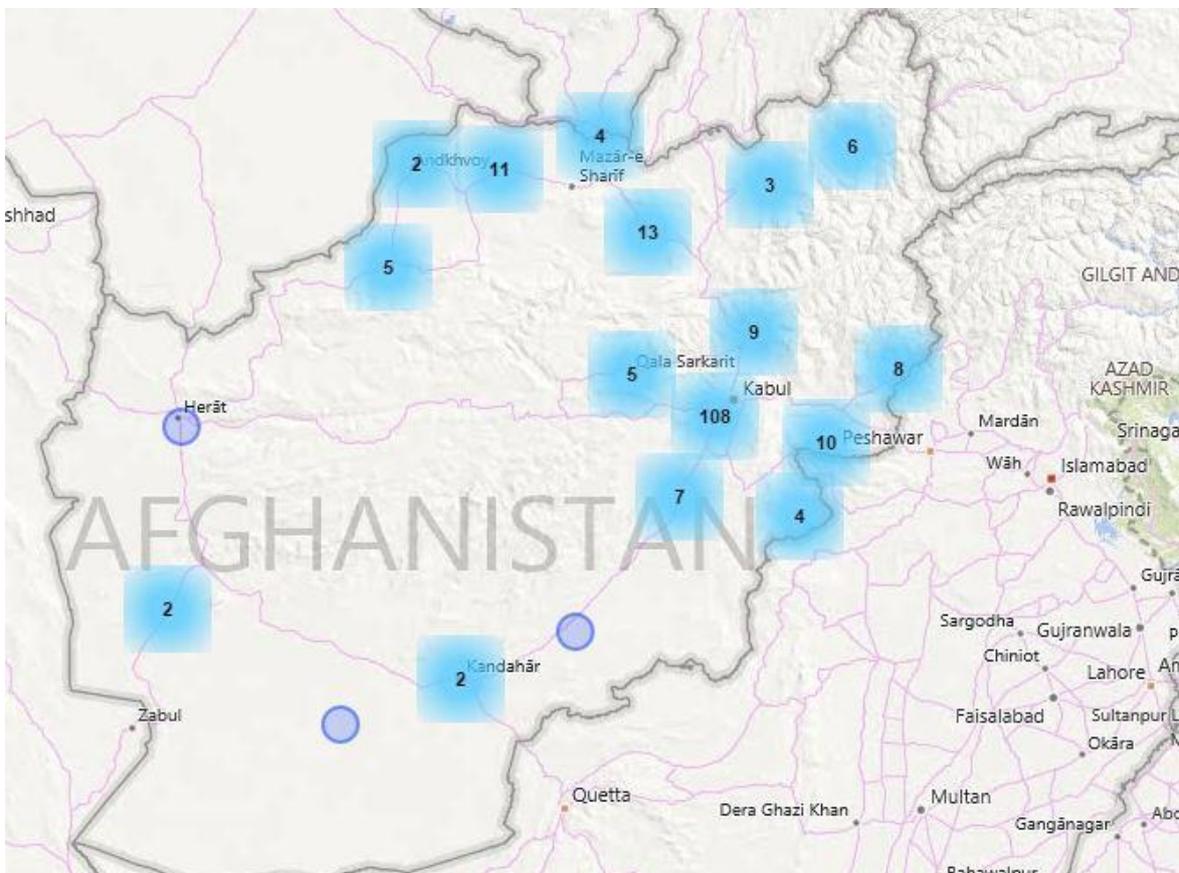
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## PROJECT OVERVIEW

The Tetra Tech (Tt) Afghanistan Engineering Support Program (AESP) provides planning, design, engineering, and technical oversight support to Afghanistan through collaboration and coordination 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 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. The purple circles represent a single project.

**Figure 1 2009 – 2016 Tt AESP Project Locations<sup>1</sup>**

<sup>1</sup> Map Source: Tt AESP’s Afghan Info Reporting Site

## EXECUTIVE SUMMARY

This report covers the period from October 1, 2015 to December 31, 2015. During this period, Tt AESP submitted 213 deliverables. Key deliverables this quarter included three revised Request for Proposals (RFPs) including the associated technical documents and Engineering Cost Estimates. These RFPs included the transmission line and substations for SEPS Completion and the transmission lines for the NEPS-SEPS Connector. Other important deliverables included the QA Biweekly and Monthly Reports, RFI (Request for Information) responses for the NEPS-SEPS Connector Transmission Lines rebid and Salang Tunnel Substation, Pre-bid meeting memo and Bid Opening memo for Salang Tunnel Substation and Kandahar Solar Transaction Assistance Technical Memos. These documents form the foundation of AESP's QA program which, in addition to a recently approved Construction Management Work Order, will comprise the majority of AESP's work going forward. These documents highlight the diversity and breadth of work that AESP has completed this quarter.

During this quarter, AESP continued fulfilling its role as Quality Assurance (QA) monitor for the Power Transmission Expansion and Connectivity (PTEC) Program. This role required review of schedules, plans, progress, factory acceptance testing, and reporting findings to USAID.

Importantly this quarter, AESP began to step into its role of providing Construction Management Services (CMS) for PTEC. AESP's CMS services highlights Tt's shifting role from conceptual designer and reviewer to becoming a major stakeholder in assuring the quality construction of 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 Sector

A leading challenge for the development of Afghanistan is providing reliable power to all regions. Increased access to cost-effective electricity and expansion of the electrical transmission grid represents one option to improve the lives of many of Afghanistan's citizens. This priority is reflected in Tt AESP's work; as the majority of efforts in FY 2016 Q1 were directed towards supporting USAID OEGI through energy related work orders. Past work orders have focused on the provision of design, planning, and bidding assistance services. Currently, the emphasis is shifting away from design services and will focus on bidding assistance and the subsequent Construction Management Services (CMS) and Quality Assurance (QA) Services required during the construction phase of these projects.

A priority for USAID OEGI has been the PTEC Program. A major component of PTEC, and the focus of AESP this quarter, 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 Southern Afghanistan to secure power from its neighbors to the North. When complete, the total cost for construction of the NEPS-SEPS Connector and attendant substations will equal approximately [REDACTED]

During this Quarter, AESP had four active long-term work orders related to the design and construction of the NEPS and SEPS electrical systems. WO-LT-0048 and WO-LT-0063 include designs for the new 220kV transmission lines and substations from Arghandi to Kandahar East and the Salang Tunnel Substation, respectively.

Tetra Tech also provided bidding support services during Q1 FY 2016 as mentioned below. This included observing bid related committee meetings and activities, drafting and editing bid memos, preparing the template of the Bid Evaluation Report for Da Afghanistan Breshna Sherkat (DABS), and developing and refining engineer's estimates.

WO-LT-0048 (including Amendments 3, 4, 5 and 6) provides design and bid support services for the seven substations and the seven transmission lines running from the future Arghandi 500/220/20kV

Substation to Kandahar Substation. The first two of the seven substations (Sayedabad and Ghazni) and the first two segments for the transmission lines (Arghandi – Sayedabad, and Sayedabad – Ghazni) are now under construction. Tt AESP is providing CMS and QA services on these four projects. The next five substations and the next five transmission lines segments are currently in the bidding process with DABS, to whom AESP is providing bidding support services.

WO-LT-0063 Amendment (AMD) 8 is for the 220kV Substation and 20kV Network serving the Salang Tunnel. Tt AESP is providing bidding support services to DABS for the received bids.

WO-LT-0090 provides Quality Assurance Services for PTEC implementation activities. Under which, Tt began monitoring and evaluating the construction of transmission lines and substations traversing from Arghandi to Ghazni. This QA service will expand to the remaining five substations and the remaining five transmission lines continuing to Kandahar East. Provision of QA Services for the PTEC projects will continue under WO-LT-0092 AMD 1, Power Transmission Expansion and Connectivity (PTEC) Program Quality Assurance (QA), and assumed Construction Management Services responsibilities under WO-LT-0092 AMD 2, Afghanistan Power Infrastructure Construction Management Services (CMS).

Tetra Tech prepared the electrical designs and contractual bidding documents necessary for completion of SEPS in Kandahar and Helmand Provinces. This quarter, Tt AESP submitted revised, complete RFPs for the transmission line and substation portions of this work order. The repackaged bids are currently undergoing on-budget review by DABS and USAID. Furthermore, investigations into the inventory of Government Funded Equipment (GFE) continued this quarter and work commenced on Amendment 1. AMD 1 is a load flow study to determine whether the existing 110kV line from Kajaki Hydro Power Plant (HPP) to Durai Junction Substation can carry 51 MW.

Under Administrative Work Order (WO-A) 0101, Tt AESP is providing design review services for DABS' existing work plan and proposed schedule to upgrade the SCADA control systems at Tarakhil Power Plant (TPP).

Under WO-LT-0083 AMD 3 Kandahar Solar Transaction Assistance, Tt AESP is providing technical assistance to the USAID off-budget project to install a 10 Megawatt solar photovoltaic (SPV) generating plant in Kandahar. Technical assistance included assessing the capability, availability, pros and cons of using existing 20kV distribution feeders in the area and installing new 20kV or 35kV feeder for the SPV. Tt AESP is also providing technical assistance on the structuring of EPC+IPP SPV projects. Tt AESP is also providing legal assistance on the power purchase agreement (PPA).

This quarter AESP has started a large change in scope with WO-LT-0093: Kajaki CMS. AESP has begun preparing for Kajaki site management duties which include: camp security, logistics, and base life support. This Quarter AESP has begun ramping up to take up the site as the previous contractor demobilizes. Furthermore, AESP has begun commenting submittals for the Hydropower Dam in Kajaki.

## Transportation

Tt AESP had one active transportation work order in FY 2016 Q1 dealing with design and submittal reviews, technical analyses, and design plans for the road stretching from Gardez to Khost.

For AESP Work Order LT-0084 Gardez to Khost (GK) Road Phase 4, Tt Kabul and Tt Reachback both have continued to provide engineering consultant reviews for: contractor submittals of drainage structure shop drawings, material product submittals for drainage structures and bridges, contractor restoration plans for existing bridges, contractor developed submittal tracker files, and as-built drawing and submittal reviews. Tt Kabul engineers have continued to attend weekly progress meetings held at USAID. Tt will continue these efforts into the next quarter.

## Vertical Structures

AESP had one active work order in the Vertical Structures Sector: long-term work order 0082 AMD 1: The American University of Afghanistan Women's Dormitory.

Tetra Tech has been assigned to perform the design review of the proposed 200 bed Woman's Dormitory at the American University of Afghanistan (AUAF).

Tt provided review and comments for the 35% Schematic Design package. The review consisted of a report at the 35% SD Stage and provided: recommendations, a submittal register, a design review comment sheet, and review of the Geotechnical Investigation Report.

### **Water Resources**

This Quarter AESP had no active work orders in the Water Resources Sector. It 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 do not clearly fit within the categories defined in the original AESP Task Order or that cross multiple sectors. Technical Support and Oversight Services work orders allows AESP to show its flexibility, mobility, depth of activities, and commitment to capacity building and gender equality.

This quarter, AESP provided technical support to USAID under two long-term work orders. WO-LT-0065 provides media assistance to USAID. This work order has been given new assignments to submit weekly and biweekly photos demonstrating the progress of construction on the Arghandi – Ghazni Transmission Lines and Substation, Salang Tunnel Substation, and Kandahar Solar Transaction 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 fourth year of engineering studies. Under the direct supervision and mentorship of Tt professional expats and local professional staff, the program provides: opportunities for practical training, real world engineering experiences, and strengthened communication skills. This quarter, the four interns completed on-the-job training, shadowed Tt's ongoing projects, and received practical and software training based on their curriculum. The variety of activities gives the women diverse experiences to be competitive and prepared for when they enter the job market.

### **Capacity Building**

Tetra Tech 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 excel to meet international standards, not only in their chosen professions, but also in cross-discipline professional skills such as: communication, public speaking, teamwork, and critical thinking. Due to Tt's commitment to capacity building, the constitution of the staff has gradually shifted from a mostly expatriate staff to a highly capable local national staff which currently comprises approximately 85% of Tt's employees.

Tt's management staff holds weekly "all hands meetings" for capacity building for training in teamwork, leadership, public speaking, and communication. Accordingly, Tt's professionals have taken a more active role in growing DABS' abilities by providing advice in the bid opening and evaluation process this quarter and setting up an embed office at DABS' Headquarters.

### **Constraints and Critical Issues**

Although security concerns did not prevent Tetra Tech AESP from completing its mission this quarter, security remains a significant concern. AESP has seen and will continue to see an increased number of teams going into the field to fulfill QA auditing and CMS inspection activities, often to areas where security is a major issue. Tetra Tech has increased security efforts through more extensive daily security briefings and closer involvement of Tt's Security Team in logistical planning. Tetra Tech will continue to respond to the rapidly changing security situation 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 as long as the project is active.

### **Summary**

As described above, Tt AESP has provided USAID OEGI with diverse engineering expertise and dynamic support for USAID goals and objectives throughout the first quarter of contract Year 7. The broad diversity of the Tt AESP program is evident in the variety of services and deliverables submitted to USAID OEGI this quarter. Therefore, the expatriate staff works closely with the LN staff to develop their skills including project management, project workflow, construction management, construction quality assurance contracts, and technical writing. Looking forward, Tt AESP will remain responsive, mobile, and relevant in the remaining quarters of fiscal year 2016. Tetra Tech will continue to work for orders issued by USAID OEGI that provide needed technical services, capacity building, and gender equality opportunities in Afghanistan.

## TABLE OF CONTENTS

<b>ACRONYMS</b> .....	<b>VII</b>
<b>1.0 ACTIVITY IMPLEMENTATION</b> .....	<b>1</b>
1.1 Key Activities Accomplished During the Year .....	1
1.2 Key Activities Planned for Next Reporting Period .....	4
1.3 Lessons Learned .....	6
1.3.1 Monitoring and Evaluation (M&E).....	6
<b>2.0 COLLABORATION WITH GIROA, OTHER DONORS, OR OTHER USAID PROJECTS</b> .....	<b>7</b>
2.1 Links with Relevant GIROA Ministries .....	7
2.2 Links with Other Donor Agencies.....	7
2.3 Links with Other USAID Projects.....	7
<b>3.0 MANAGEMENT AND ADMINISTRATIVE ISSUES</b> .....	<b>7</b>
3.1 Personnel .....	7
3.2 Adaption of the Activity .....	8
3.3 Modifications and Amendments.....	8
<b>4.0 SUCCESS STORIES</b> .....	<b>8</b>

## LIST OF TABLES

1.1.1.1 Table 1.1 Summary of Work Completed During the First Quarter of FY 2016 .....	1
1.2.1.1 Table 1.2 Summary of Work Planned for the Second Quarter of FY 2016.....	4
1.3.1.1 Table 1.4 Monitoring and Evaluation .....	6

## LIST OF FIGURES

Figure 1 2009 – 2015 Tt AESP Project Locations.....	i
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## ACRONYMS

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A	Administrative
A/E	Architect and Engineer
ACOR	Alternate Contracting Office Representative
AESP	Afghanistan Engineering Support Program
AMD	Amendment
AUAF	American University of Afghanistan
BLS	Basic Life Support
CM	Construction Management
CMS	Construction Management Services
DABS	Da Afghanistan Breshna Sherkat
EB	Estimated Budget
EDMS	Electronic Document Management Services
GFE	Government Funded Equipment
GK	Gardez to Khost Road
HPP	Hydro Power Plant
LN	Local National
LOE	Level of Effort
LT	Long-term
MIS	Management Information System
MOeW	Ministry of Energy and Water
NEPS	Northeast Power System
NTP	Notice to Proceed
OEGI	Afghanistan Office of Economic Growth, and Infrastructure
POC	Point of Contact
PPA	Power Purchase Agreement
PTEC	Power Transmission Expansion, and Connectivity
QA	Quality Assurance
QC	Quality Control
RFI	Request for Information
RFPs	Request for Proposals
ROM	Rough Order of Magnitude cost estimate
SCADA	Supervisory Control and Data Acquisition
SEPS	Southeast Power System
SIVs	Special Immigration Visa
SOO	Statement of Objective
SOW	Scope of Work
SOW	Statement of Work
TOR	Terms of Reference
TPP	Thermal Power Plant
Tt	Tetra Tech
USACE	United States Army Corps of Engineers
USAID	United States Agency for International Development
USD	United States Dollars
WP	Work Plan

## 1.0 ACTIVITY IMPLEMENTATION

### 1.1 KEY ACTIVITIES ACCOMPLISHED DURING THE YEAR

Tt AESP is responsible for identifying, planning, designing, and providing technical support and oversight of USAID OEGI's infrastructure projects and related engineering activities. In accordance with the basic USAID OEGI Architect and Engineer (A/E) IQC contract statement of work, AESP creates work orders to track 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, and Water and Sanitation, as stated in Tt AESP's IQC. This quarter, Tt AESP provided support under 15 work orders in the Energy Sector, one (1) work order in Vertical Structures, one (1) Transportation work orders and two (2) Technical Support and Oversight work orders. Hence, the majority of AESP work orders and subsequent work was related to the energy sector for the first quarter of fiscal year 2016. Table 1.1 below describes the work order activities performed during the first quarter.

**1.1.1.1 Table 1.1 Summary of Work Completed During the First Quarter of FY 2016**

Number	Work Order Title	Summary of Work Completed
WO-A-0100	Interim QA/QC Monitoring & Evaluation and Construction Management Services	This quarter, Tetra Tech provided interim CMS oversight for the Arghandi-Ghazni transmission line and the Sayedabad and Ghazni substation work currently underway. This included a team of on-site inspectors, review of submittals by the Contractor, and chairing of weekly meetings. This work will shift to WO-LT-0092 AMD 2 as this Work Order has now received NTP.
WO-A-0101	Tarakhil Power Plant SCADA Upgrade Review	Tetra Tech sent a Confirmation Letter to USAID on November 22, 2015; and received USAID concurrence on November 23, 2015. Tt submitted to USAID on December 10, 2015 a technical memo reviewing the proposed Work Plan and Schedule created by DABS.
WO-LT-0042 AMD 4	Afghan Women Internship Program	In this quarter, interns received trainings in Civil 3D Arc GIS, Primavera, 3Ds MAX, Autodesk Storm, and Sanitary Analysis software training. Interns also received worked with AESP engineers for hands-on experience in: electrical estimation, the basics of electrical design, asphalt, and steel and aggregate lab testing. Interns experienced on-the-job training on submittals review, project management, QA/QC, civil 3D, engineering design in all relevant sectors.

		<p>Tt submitted the Work Plan and Estimated Budget for AMD4 extension on November 01, 2015 and received approval on November 04, 2015.</p> <p>Tt submitted the WP and EB for AMD5 on December 07, 2015 and received NTP on December 29, 2015.</p>
WO-LT-0048 AMD 4 and AMD 6	Qarabagh to Kandahar East Five Substations - RPC At Kabul and Kandahar East	<p>Tt AESP provided observers and participants to the DABS' Bid Opening, Preliminary Examination Committee, Technical Evaluation Committee, and Financial Review and Comparison Committee. Bid evaluations have ended. AESP created a template for the DABS' Bid Evaluation Report. The Bid Evaluation Report has been submitted by the committees to DABS' management.</p>
WO-LT-0048 AMD 5	Transmission Line from Ghazni to Kandahar East	<p>The project is currently being re-bid. Tt AESP revised the bidding documents and is now processing RFIs. The bids are to submitted January 16, 2015.</p>
WO-LT-0059	NEPS System Protective Relay	<p>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 has continued to be on hold throughout this quarter.</p>
WO-LT-0063 AMD 8	Salang Tunnel Substation Combined RFP and Transformer Vector Modification	<p>DABS posted the RFP on their Procurement website on September 8, 2015. Requests for Information (RFIs) were processed by Tt AESP this quarter. Bids were submitted to DABS on November 29, 2015. By the end of this quarter, the DABS' Preliminary Examination and the Technical Evaluation Committees had completed their work. Tt AEPS provided observers and participants to the Bid Evaluation Committees. Tt AESP also provided secretarial services to the DABS' Committees in the form of daily reports, summary tables, and meeting venues.</p>
WO-LT-0065	Media Assistance	<p>This quarter, Tt continued submitting construction progress photos of the Arghandi-Ghazni Transmission Lines, Substations, and other active work orders in a bi-weekly basis. Tt also started submitting weekly photos of site construction per USAID's request.</p>
WO-LT-0070 AMD 4	Tarakhil Power Plant Power Block A, B and C Controls Repair	<p>Tt received a hold request from the ACOR on July 17, 2015.</p>
WO-LT-0070 AMD 6	Phoenix Support at Tarakhil	<p>Tt was asked to provide technical assistance to Phoenix at the Tarakhil Power Plant. Tt submitted comments on a scope of work for water piping repair on May 24, 2015. ACOR asked Tt to hold this work order on July 17, 2015.</p>

WO-LT-0082	Engineering Support for Vertical Structures	Tt Reachback completed a design review of Sabez School on December 7, 2014. Activities under the work order are contingent on USAID forwarding assignments.
WO-LT-0082 AMD 1	American University of Afghanistan (AUAF) Women's Dormitory	USAID asked Tt to provide engineering design review services and construction phase technical review services for the new 200 bed Women's Dormitory at the American University of Afghanistan (AUAF). Tt submitted WP and EB on September 3, 2015 and received NTP on October 14, 2015. Tt Kabul and Reachback completed and submitted the 35% Interim design review report to USAID on December 03, 2015.
WO-LT-0083 AMD 3	Kandahar Solar Transaction Assistance	Tt Responded to a series of inquiries from USAID about the feeders for a solar photovoltaic system in Kandahar. Tt provided comments on the structuring of the SPV generating plant as an EPC + IPP. Tt also provided review and comments on the power purchase agreement. Tetra Tech AESP attended the Pre-Proposal conference that was held in Dubai on November 23, 2015. Also, Tt submitted the deliverables' Task 1 and Task 2 technical memos to USAID during this quarter.
WO-LT-0084	G-K Road Phase 4	Tt continued to support OEGI through the review of Contractor as-built submittals for Phase IV of the GK roadway and bridge construction. Review of RFAs and attendance at weekly review meetings have been ongoing throughout this quarter. During this quarter, USAID asked Tt to review the as-built drawings/submittals which were not part of the Work Order's work plan. Therefore, Tt expanded the WP and EB to include the as-built reviews as well. Tt has reviewed more than 200 as-built submittals to date; which also contains as-built resubmittals. The construction for this project was completed December 2015.
WO-LT-0090	NEPS-SEPS Interim QA Monitoring and Evaluation Service	This quarter Tt has submitted four biweekly, and four monthly reports to USAID. The energy team participated in factory acceptance tests (FATs) for parts quality assurance of the following Arghandi to Ghazni transmission line and substations projects; <ul style="list-style-type: none"> <li>• FAT of 220kV Line Bay Current Transformers</li> <li>• FAT of Optical Pilot Ground Wire (OPGW)</li> <li>• FAT of 220kV Disconnects</li> </ul>
WO-LT-0091	SEPS Completion	Revised bidding documents were submitted to USAID and DABS for on-budget review. Investigations into the inventory of Government Funded Equipment (GFE) continued this quarter.

WO-LT-0091 AMD 1	Kajaki-Durai Junction Transmission Line	NTP was received to provide a load flow study to determine whether the existing 110kV line from Kajaki Hydro Power Plant (HPP) to Durai Junction Substation can carry 51 MW.
WO-LT-0092	NEPS-SEPS Construction Management Services	Tetra Tech submitted a WP and EB on August 4, 2015. USAID requested Tetra Tech to include QA services as AMD 1 and CMS as AMD 2 to WO-LT-0092. Tetra Tech has since received NTP on this Work Order. Prior to NTP for NEPS-SEPS CMS, CMS was provided under WO-A-0100.
WO-LT-0093	Kajaki Hydroelectric Power Plants Construction Management Services	Tetra Tech submitted a revised WP and EB on September 30, 2015. Several Partial NTPs and a final and full NTP has been received on November 21, 2015. Tt AESP is providing CMS to Kajaki in line with USAID's phased withdrawal of the present Owner's Engineer and Quality Assurance Organization. Tt has begun review of the Kajaki submittals.

## 1.2 KEY ACTIVITIES PLANNED FOR NEXT REPORTING PERIOD

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

### 1.2.1.1 Table 1.2 Summary of Work Planned for the Second Quarter of FY 2016

Number	Work Order Title	Summary of Work Planned
WO-A-0100	Interim QA/QC Monitoring & Evaluation and Construction Management Services	Tetra Tech will transition from WO-A-0100 and from WO-LT-0090 to WO-LT-0092 to Provide QA and CMS services for PTEC.
WO-LT-0042 AMD 4	Afghan Women Internship Program	The internship program will continue with additional training and shadowing opportunities. AMD4 will be completed in January 2016. The anticipated AMD5 for academic year 2016 will increase the number of interns 4 to 8 interns. In Q2, AESP expects to interview and hire the new interns and develop a curriculum based on the expanded scope and capabilities of AESP.
WO-LT-0048 AMD 4 and AMD 6	Qarabagh to Kandahar East Five Substations - RPC At Kabul and Kandahar East	DABS will conclude reference checks of the lowest priced technically qualified bidder, and seek approval from USAID and from the Afghan National Procurement Unit (NPU) in the Office of the President of Afghanistan. Tt AESP will continue to provide bidding support services to USAID and DABS through the award of contract to the successful bidders. The Contract is anticipated to be awarded by DABS in May 2016.
WO-LT-0048 AMD 5	Transmission Lines from Ghazni to Kandahar East	Tt AESP will continue to process RFIs and provide bid support services to USAID and DABS. Bids are due to DABS on January 16, 2016.

WO-LT-0063 AMD 8	Salang Tunnel Substation Construction Combined RFP/ Transformer Vector Group Modification	The Bid Opening, financial review, bid evaluation, and the Bid Evaluation Report are expected to occur in FY 2016 Q2. Tt AESP will provide bidding support services to USAID and DABS through the award of the contract to the successful bidder.
WO-LT-0065	Media Assistance	Tetra Tech will continue to submit construction progress photos and captions to USAID on a weekly and bi-weekly basis. Tetra Tech will also continue to provide media assistance to USAID as the need arises.
WO-LT-0070	Tarakhil Power Plant Water Piping System	It is anticipated that this work will continue to be on hold throughout Q2 FY 2016.
WO-LT-0082 AMD 1	American University of Afghanistan (AUAF) Women's Dormitory	Tetra Tech will provide design reviews at the 65% and 99% design phases and review the construction submittals.
WO-LT-0083 AMD 3	Kandahar Solar Transaction Assistance	Tetra Tech will provide bidding support services, technical assistance, and legal Power Purchase Agreement (PPA) assistance to USAID through the award of the contract to the successful bidder. RFIs from Bidders are allowed by USAID until January 31, 2016.
WO-LT-0084	G-K Road Phase 4	Tetra Tech will continue to provide as-built drawing and submittal reviews for this work order. It is anticipated that the review of as-built drawings/submittals of GK Road Phase IV will be completed next quarter.
WO-LT-0090	NEPS-SEPS Interim QA Monitoring and Evaluation Service	Tt will transition from WO-A-0100 and from WO-LT-0090 to WO-LT-0092 to continue to provide CMS and QA services for PTEC.
WO-LT-0091	SEPS Completion	Tetra Tech will work with USAID and the United States Army Corp of Engineers (USACE) to inventory the GFE provided by the USACE to the Ministry of Energy and Water (MoEW) of Afghanistan for the SEPS Completion Project. Tt AESP will provide bidding support services to USAID and DABS. There will be separate contracts for transmission line work and substation work.
WO-LT-0091 AMD 1	Kajaki-Durai Junction Transmission Line	Tetra Tech expects the deliverable report; a load flow study for the existing 110kV line from Kajaki HPP to Durai Junction 51 MW Substation, to be completed in mid-January.
WO-LT-0092	Power Transmission Expansion and Connectivity (PTEC) Program Oversight	As part of this base Work Order, Tetra Tech will provide electronic document management services (EDMS) to PTEC and Kajaki projects. The ProjectWise computer system will continue to be used.

WO-LT-0092 AMD 1	Power Transmission Expansion and Connectivity (PTEC) Program Quality Assurance (QA)	Tetra Tech will provide Quality Assurance services to the Arghandi, Sayedabad, and Ghazni Transmission Lines and Substations projects. Work is expected to expand to other construction projects (Salang Tunnel Substation, and Ghazni – Kandahar East substations and transmission lines) when authorized.
WO-LT-0092 AMD 2	Afghanistan Power Infrastructure Construction Management Services (CMS)	Tetra Tech will provide Construction Management Services to the Arghandi, Sayedabad, and Ghazni Substations and Transmission Lines projects. Work is expected to expand to other construction projects (Salang Tunnel Substation, and Ghazni – Kandahar East substations and transmission lines) when authorized.
WO-LT-0093	Kajaki Hydroelectric Power Plants Construction Management Services	Tetra Tech will provide construction management services, quality assurance services, and basic life support (BLS) to the Kajaki HPP project for the installation of Kajaki Unit Number 2.

### 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 no evaluations have been submitted to USAID POCs. It is waiting to receive back the three evaluation forms that were submitted to USAID during the 2015 fourth quarter. These evaluations form the basis of Tt’s analysis for lessons learned and allow for continuous improvement of AESP’s work.

#### 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. Therefore, Tt AESP’s M&E Plan proposed the monitoring and evaluation of indicators related to the training and development of our local Afghan staff, as well as the management of our contracts. Indicators, Targets and Results are provided below:

**1.3.1.1 Table 1.3 Monitoring and Evaluation**

Number	Indicator	FY 2016 Q1 Results	FY 2016 Target
I-1	Person hours of training completed in technical energy fields supported by USG assistance	288 hours	100 hours
I-2	Number of days of USG funded technical assistance in technical energy fields provided to counterparts of stakeholders	18 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%

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

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### 2.1 LINKS WITH RELEVANT GIROA MINISTRIES

Tt AESP collaborated with DABS on numerous projects, including the NEPS-SEPS connector, Salang Tunnel Substation and electrical equipment manufacturing facility assessments. In addition, Tt AESP provided assistance to, and coordinated with, DABS commercial contractors; GFA Consulting Limited, Phoenix 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 coordinated with the United States Army Corps of Engineers (USACE) on the SEPS completion project.

### 2.3 LINKS WITH OTHER USAID PROJECTS

No significant events or activities to report during this quarter.

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## 3.0 MANAGEMENT AND ADMINISTRATIVE ISSUES

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### 3.1 PERSONNEL

There were several changes to key personnel in Tetra Tech AESP during this quarter. Four new expatriates were hired. One expatriate filled the position of Transmission Line Engineer, and one expatriate filled the position of Administration Manager. One expatriate filled the position of the Site Manager at the Kajaki Dam, and one expatriate Operations Manager was also hired to be in Kandahar to support the work under long term work order WO-LT-0093.

There were also key changes in Local National Staff this quarter. Tetra Tech hired five Project Site Inspectors, three Electrical Site Inspectors (one was later promoted to Deputy Director of CMS), four Electrical Engineers, one Civil Engineer, one HSE Site Inspector, and one IT manager for WO-LT-0093 Kajaki CMS.

During this quarter, Tetra Tech AESP promoted two LN staff. One Electrical Site Inspector was promoted to Deputy Director of Construction Management Services and the MIS Assistant was promoted to Deputy MIS Manager.

Tt's Civil Project Engineer, Cleaner, Kitchen Helper, and Chef received their Special Immigration Visas (SIVs) and departed for the United States. These positions were posted and filled. Additionally, one Administrative Assistant resigned, this position was posted and filled with two new Administrative Assistants. Also, the Expatriate Project Controls Engineer's contract was completed during this quarter, this position was posted and will be filled during the next quarter. The Expatriate Electrical Engineers' contract was also finished and the Expatriate Technical Services Manager left for an extended leave and will return the next quarter in the Deputy Chief of Party Position.

During this quarter, Tetra Tech continued a series of capacity building exercises. A public speaking club was formed with the main purpose of increasing both LN and Expatriates public speaking skills. Other capacity building exercises focused on collaboration and efficient communication. These exercises will continue throughout next quarter.

Gender equality plays an important role in staff planning at AESP. During this quarter, Tt AESP maintained gender percentages of 64% Male and 36% Female employees. Tt AESP will continue to support USAID's gender equality and female empowerment directive through the remainder of the task order.

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## 3.2 ADAPTION OF THE ACTIVITY

As AESP has been extended to year 7, it has begun significant changes to the activity. During the inception and first five years of AESP, work has focused on design, design review, and engineering studies. However starting in year 6 with the addition of QA Services for PTEC, AESP has continued to expand to provide Construction Management Service. This continues to move the focus of AESP work on construction and implementation rather than conceptual design and review. Furthermore, with NTP for WO-LT-0093, AESP has expanded to provide not only CMS, but base-life support and Security Services for the Kajaki Hydropower Dam. AESP continues to adapt to meet the needs of USAID as OEGI expands into the implementation phase of its commitment in Afghanistan.

## 3.3 MODIFICATIONS AND AMENDMENTS

This quarter, 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.

## 4.0 SUCCESS STORIES

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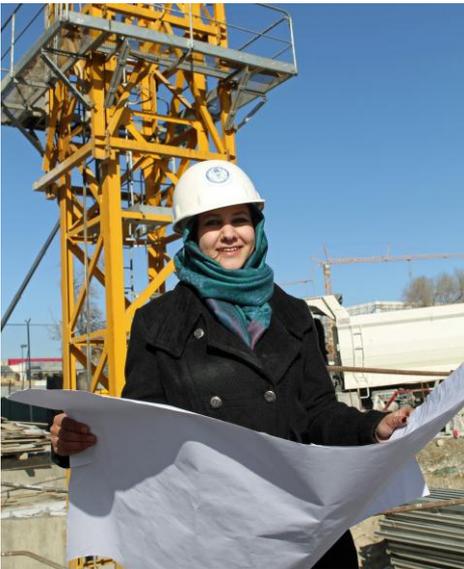
Following is Tetra Tech AESP's Success Story for the First Quarter of FY 2016. The success story details the impact the Women's Internship Program has had on the engineers. It follows-up with interns that have used the opportunities provided in the program to pursue careers as full-time Engineers.



## SUCCESS STORY

# From Intern to Project Engineer

**USAID is providing opportunities for women engineers to manage infrastructure projects**



*Mariam Safi joined Tetra Tech AESP through AESP Afghan Women Internship Program in 2013.*

***Mariam joined Tetra Tech AESP through AESP Afghan Women Internship Program in 2013. This internship program is for fourth year engineering students.***

USAID is empowering women to excel in the field of engineering and architecture with the Afghan Women Internship Program, which began in 2011. This program provides the opportunity for women in their last year of engineering studies to intern at a USAID partner's engineering firm. This program provides a foundation through which graduating interns can launch their engineering careers.

Interns are given practical knowledge in engineering through: software training, labs, shadowing activities, personal instructions from professional engineers, and site visits. The internship provides the women with technical knowledge and experience which is lacking in their formal education, thus, these women have the skills and knowledge to compete for jobs when they graduate.

As part of this program, interns receive a resume building and interview preparation training, during which, interns are coached on important interviewing skills, and work to improve their resumes with the help of expatriate advisors. Following this training, the interns are invited to interview for a full-time position at a USAID partner's engineering firm.

Ms. Mariam Safi started as Civil Engineering Intern with the Afghan Women Internship Program in January 2013. Her outstanding performance as an intern, and during the interviewing process, allowed her to be selected as a Civil Engineer in January 2014. As a result of her stellar performance in the Civil Engineering department, she now manages the submittal review process of the Gardez-Khost Road Phase IV project, attending client meetings, managing budgets, resolving design and development problems, and reviewing and approving project drawings.

"USAID supports all Afghan women, and the Internship Program gave me the opportunity to learn to be a real engineer, and to prove my skills in Afghanistan, where female engineers are often dominated by male engineers" Mariam Safi, Civil Engineer and former intern.

Successful graduates of the internship program have gone on to work with USAID, the Ministry of Energy and Water (MoEW) of Afghanistan, and private engineering companies as a result of this important USAID initiative.

**USAID Afghanistan**

U.S. Embassy Cafe Compound  
Great Massoud Road  
Kabul, Afghanistan  
Tel: 202.216.6288

**<http://afghanistan.usaid.gov>**