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ENGINEERING SUPPORT PROGRAM

Q3 QUARTERLY REPORT FY2013



Submitted: July 10, 2013

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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July 10, 2013

[REDACTED]

USAID – Office of Economic Growth and Infrastructure (OEGI)
Café Compound
U.S. Embassy
Great Massoud Road, Kabul, Afghanistan

Re: Contract No. EDH-I-00-08-00027-00, Task Order No. 1; Afghanistan Engineering Support Program; Q3 Quarterly Report FY2013

Dear [REDACTED]

Per section C.5, "Deliverables," paragraph G of the above referenced contract, we are submitting the Third Quarterly Report for the 2013 Fiscal Year. The report covers the period of April 1, 2013 through June 30, 2013.

Please feel free to contact me with any questions or comments.

Respectfully,

[REDACTED]

Chief of Party
Afghanistan Engineering Support Program (AESP)
Tetra Tech, Inc.

AFGHANISTAN ENGINEERING SUPPORT PROGRAM

Q3 QUARTERLY REPORT FY2013

July 10, 2013

DISCLAIMER

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Appendix

Appendix A FY13 Q3 Work Order Status

Appendix B FY13 Q3 Photographs

1.0 Executive Summary

This is the Fiscal Year 2013 Third Quarter (FY2013 Q3) report submitted under Contract No. EDH-I-00-08-00027-00, Task Order No. 1; Afghanistan Engineering Support Program (AESP). The reporting period is April 1, 2013 through June 30, 2013.

Tetra Tech (Tt) AESP provides technical assistance to the USAID Afghanistan Office of Economic Growth and Infrastructure (OEGI) with quick and reliable engineering expertise through a Kabul-based core of expatriate architectural and engineering professionals leading a competent staff of local Afghan engineers and technical staff. In addition to the in-country resources, Tt AESP is backed by a highly qualified US-based staff, known as “reachback”, which is utilized on an as-needed basis. Tt AESP provides planning, design, technical and oversight support contributing to capacity building, mentoring, and collaboration/coordination with USAID stakeholders. The period of performance for this contract is five years from a notice to proceed (NTP) date of November 9, 2009.

During FY2013 Q3 Tt AESP staff worked on two administrative work orders and eleven active and six pending long term work orders. 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. The majority of Tt AESP work this quarter supported the energy sector.

During the quarter, Tt AESP continued support of USAID energy projects. Field inspections and data collection under WO-LT-0059 for relay settings and transmission lines continued through the Quarter. Tt AESP obtained site-specific communication software for Da Afghanistan Breshna Sherkot’s (DABS) relay department which facilitated the downloading of the switch data. The development of a power model utilizing the captured data to evaluate power scenarios and identify system strengths and weaknesses continues.

Under WO-LT-0048, Tt AESP finalized technical procurement documents for the public electric utility provider DABS transmission line and substation between Dasht-E-Barchi and Kandahar East; and responded to related technical Request for Information (RFI) during the quarter.

For the transportation sector, Tt AESP supported WO-LT-0067 Gardez-Khost Road construction project scheduling efforts teaming with Mashriq Engineering Construction Company (MECC) staff to capture accurate schedule updates from the field and report progress. This activity included mentoring MECC staff using Primavera P6 scheduling software.

Construction administration services at Sardar Kabuli Girls High School (SKGHS) for site layout, grading, and water and wastewater utilities continued. Media Assistance under WO-LT-0065 included time-lapse videos created for Pule Pashto Bridge and SKGHS.

Under Training and Support work order WO-LT-0066, the training questionnaire generated interest from thirty-two Foreign Service Nationals at USAID committed to completing PMP (Project Management Professional) training.

The Tarakhil Thermal Power Plant Water Piping System, WO-LT-0070, received notice to proceed on 6 June 2013. AESP is preparing design and construction drawings and specifications for the complete replacement of the existing water piping system that supplies the Fire Suppression System at the Tarakhil Thermal Power Plant. An introductory meeting, site visits and a topographic survey were initiated this period.

AESP continues to build a cohesive team to support USAID’s mission in Afghanistan. Team building training was conducted for the management team and entire AESP staff to further develop a cohesive team environment and team skills, and motivate and provide personal development. Further development of

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management skills for Local National (LN) managers will continue into Q4.

The Afghan Women Internship Program, WO-LT-0042, continued to provide hands-on training to four female interns in road building and construction materials, observation opportunities at active construction sites and Computer Aided Design (CAD) instruction.

FY2013 Q3 included the transition of Chief of Party position from [REDACTED], PE to [REDACTED] PE, BCEE. [REDACTED] will continue to support the program from the home office.

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As described above, AESP in FY2013 Q3 delivered considerable support to the USAID energy sector, increased formal training for Local National employees, advanced promotions, promoted individual responsibility and personal growth and advanced female gender equality. Appendix B contains photos of activities that took place during the quarter. Tt AESP will continue capacity building and gender equality support to the USAID mission in Afghanistan through FY2013 Q4 and beyond.

2.0 Program Staffing

The Tt AESP continues to maintain qualified expatriate and LN staff to support a varied set of work orders. This quarter saw the continued migration of management responsibilities from expatriate staff to LN staff. The expatriate filling the Communication Specialist position demobilized which initiated the transfer of duties overseen by the position to skilled LN staff.

A complete listing of expatriate and LN staff is summarized in the sections that follow.

2.1 Expatriate Staffing

The program maintained an expatriate staff of 16 LTTAs and 2 STTAs during FY2013 Q3. (Table 2.1)

Employee Name	Position	Afghanistan Arrival	Afghanistan Departure
[REDACTED]	Finance Manager	11/18/09	N/A
[REDACTED]	Sr. Quality Assurance Inspector/Sr. Construction Mgr.	12/3/10	N/A
[REDACTED]	Vertical Structures Electrical Engineer	04/19/11	04/10/2013
[REDACTED]	Deputy Chief of Party	04/19/11	N/A
[REDACTED]	MIS Manager	06/16/11	N/A
[REDACTED]	Energy Lead (STTA)	04/15/13	05/28/13
[REDACTED]	Chief of Party	07/14/11	06/27/13
[REDACTED]	Sr. Energy Specialist	06/25/13	N/A
[REDACTED]	Water/Sanitation Lead	04/09/12	06/07/13
[REDACTED]	Sr. Project Manager	06/08/10	05/24/13
[REDACTED]	Jr. Civil Engineer	04/09/12	N/A
[REDACTED]	Technical Services Manager	07/21/12	N/A
[REDACTED]	Jr. Civil Engineer	07/21/12	N/A
[REDACTED]	Contract/Procurement Manager	10/03/12	N/A
[REDACTED]	Transportation Lead	10/12/12	N/A
[REDACTED]	Energy Lead	03/19/13	04/08/13
[REDACTED]	Administrative Manager	04/22/13	N/A
[REDACTED]	Chief of Party	06/08/13	N/A

2.2 Expatriate Staffing Changes

During the quarter, Tt AESP continued to transfer more and more responsibilities to the local national staff. In preparation for FY14, when certain defined positions demobilize, responsibilities will migrate to qualified local nationals and a replacement expat will not be mobilized. Three such positions were vacated this quarter: Vertical Structure Electrical Engineer, Senior Project Manager and Water/Sanitation Lead, fall into this category. [REDACTED] Vertical Structure Electrical Engineer left the project on 10 April 2013. [REDACTED], Senior Project Manager demobilized from the project 24 May 2013. [REDACTED] Water/Sanitation Lead, returned to the states on 7 June 2013.

[REDACTED] handed over his responsibilities of Energy Lead to [REDACTED] during the month of March. [REDACTED] demobilized in late March, as his contract ended. [REDACTED] unexpectedly left the project during the third quarter. [REDACTED] temporarily mobilized as an STTA until a qualified candidate to fill the Energy Lead was identified and in place. His replacement will join the project sometime during the FY2013 Q4

The Senior Energy Specialist position remained open since [REDACTED] demobilization in January. Due to the difficulties to fill position, [REDACTED] returned to the project to fill the position into the fourth quarter.



2.3 Local National Staffing

The Tetra Tech AESP continues to maintain a staff of over 35 qualified local national employees.

Table 2.2 presents the LN staff during the quarter.

Table 2.2 Local National Staffing FY2013 Q3			
Employee Name	Position	Start Date	End Date
[REDACTED]	Government Liaison	12/2/09	N/A
[REDACTED]	Facilities Maintenance	3/20/10	N/A
[REDACTED]	Facilities Manager	3/20/10	N/A
[REDACTED]	Kitchen Helper/Jr. Cook	3/20/10	N/A
[REDACTED]	Cleaner	3/20/10	N/A
[REDACTED]	Cleaner	3/20/10	N/A
[REDACTED]	Laundry	3/20/10	N/A
[REDACTED]	Cleaner	3/20/10	N/A
[REDACTED]	Accountant	3/23/10	N/A
[REDACTED]	Internal Auditor	3/27/10	N/A
[REDACTED]	IT Manager	4/15/10	N/A
[REDACTED]	IT Assistant	4/20/10	N/A
[REDACTED]	HR Manager	7/3/10	N/A
[REDACTED]	Kitchen Helper	8/3/10	N/A
[REDACTED]	Kitchen Helper	8/3/10	N/A
[REDACTED]	Administrative Assistant	9/13/10	N/A
[REDACTED]	Administrative Assistant	10/1/10	N/A
[REDACTED]	QA Monitor/USACC	10/2/10	N/A
[REDACTED]	QA Monitor/USACC	10/2/10	N/A
[REDACTED]	Deputy Chief of Party	10/9/10	N/A
[REDACTED]	Senior Administrative Assistant	10/24/10	N/A
[REDACTED]	Structural Engineer – Junior Level	11/29/10	N/A
[REDACTED]	Civil Engineer – Mid Level	12/7/10	N/A
[REDACTED]	QA Monitor/USACC	12/11/10	N/A
[REDACTED]	Laundry	3/9/11	N/A
[REDACTED]	Electrical Engineer –Senior Level	3/15/11	N/A
[REDACTED]	Technical Services Manager	4/16/11	N/A
[REDACTED]	Cleaner	6/1/11	06/15/13
[REDACTED]	Contracts Assistant/Buyer	6/12/11	N/A
[REDACTED]	Civil Engineer Junior Level	10/29/11	N/A
[REDACTED]	Civil Engineer Junior Level	1/24/12	N/A
[REDACTED]	Buyer	6/9/12	N/A
[REDACTED]	Technical Writer/GIS	3/25/12	N/A
[REDACTED]	Architect	8/25/12	N/A
[REDACTED]	Cook	9/3/12	N/A
[REDACTED]	Cleaner	10/01/12	N/A
[REDACTED]	Female Searcher	10/10/12	N/A
[REDACTED]	Electrical Engineer – Junior Level	10/10/12	N/A
[REDACTED]	Electrical Engineer – Mid Level	11/01/12	N/A
[REDACTED]	Intern	1/12/13	N/A
[REDACTED]	Intern	1/12/13	N/A
[REDACTED]	Intern	1/12/13	N/A
[REDACTED]	Intern	1/12/13	N/A

2.4 Local National Staff Changes

Tt AESP continues to recognize local nationals that prove themselves and continue to work diligently to prepare for additional responsibilities. One such employee, [REDACTED] has been instrumental in the energy sector. [REDACTED] is our team liaison with DABS and Kabul Energy Department (KED), his insight regarding both entities’ capabilities has been invaluable when determining a solution within the energy sector. Due to his expertise and capabilities as an Electrical Engineer, [REDACTED] was promoted to a Senior-Level Electrical Engineer.

Tt AESP continued its effort of educating, mentoring and delegating additions duties to the talented local national staff throughout the Q3.

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3.0 Contract/Task Order

3.1 Contract/Task Order Deliverables FY2013 Q3

This quarterly report is the third Contract/Task Order deliverable of FY 2013.

4.0 Work Orders

4.1 Sector Activities

The following table is a summary of the active work orders per sector during FY2013 Q3.

Table 4.1 Active Work Orders FY2013 Q3		
Sector	Work Order Type	
	Administrative Work Orders	Long Term Work Orders
Energy	0	4
Multi-Disciplinary	0	1
Water Resources	0	0
Transportation	0	2
Vertical Structures	0	0
Technical Services and Support	2	4
<i>The value of Long Term Work Orders initiated in FY2013 Q3: [REDACTED]</i>		

The following sections describe the activities performed in each sector during FY2013 Q2 under this Task Order.

4.1.1 Energy

Tetra Tech AESP continued work on a number of long term work orders as assigned by USAID to meet the objectives outlined in the Department of Defense *Report on Progress Toward Security and Stability in Afghanistan* (October 2011). The work products/studies support development of reliable electrical transmission and generation systems within Afghanistan. Existing long-term work orders are described as follows:

4.1.1.1 WO-LT-0048 Engineering Study for 220kV Transmission Line from Dasht-E-Barchi to Kandahar

WO-LT-0048 AMD 3 Transmission Line and Substations from Arghandi to Ghazni City

USAID gave notice on September 13, 2012 to proceed with Amendment (AMD) 3 to provide a technical section (Volume 2) for a 220kV transmission line from Arghandi to Qarabagh and substations located at Sayedabad, Ghazni City, and Qarabagh. This was subsequently changed to have the transmission line end at Ghazni City.

At the time of this report, Tetra Tech AESP submitted technical section (Volume 2) AMD 3-REV 7 for review and comments from USAID. Tetra Tech AESP assisted DABS in completing the Bill of Quantities (BoQ) and Volumes 1 and 3. Volumes 1, 2 and 3 were completed. DABS Request for Proposal (RFP) package for an engineering, procurement, and construction (EPC) contract had been released.

The current scheduled end date for the work is 31 December 2013. With the release of the RFP by DABS, Tt AESP is providing bidding support. Tt AESP is providing responses to bidders technical inquires for DABS.

WO-LT-0048 AMD 4 Transmission Line and Substations from Ghazni City to Qalat

USAID gave notice on September 24, 2012 to proceed with Amendment 4 to provide the technical section (Volume 2) for a 220kV transmission line from Qarabagh to Qalat. This was subsequently changed to run the transmission line from Ghazni City to Qalat.

At the time of this report, technical section (Volume 2) AMD 4-REV 0 is on hold. The original schedule was to submit the technical section a few weeks after the acceptance of AMD 3-REV 7. Tetra Tech AESP will support USAID's effort to assist DABS in the completion of the BoQ and Volumes 1 and 3.

4.1.1.2 WO-LT-0059 NEPS System Protective Relay Coordination Studies

Notice to proceed for this work order was given on December 18, 2012. This project will provide relay settings for the primary substation protective relays at substations controlled by the national load control center (NLCC) at Tarakhil thermal power plant (TPP). Tetra Tech AESP and Power Engineering are working together to create a high voltage and medium voltage system relays study and proposed relay settings. Medium voltage line feeders data have been gathered and studied by staff in Kabul.

This work order is well into the information gathering tasks. The task for gathering existing relay setting of NEPS substations is finished. The inspection efforts of Kabul medium voltage network (15/20kV feeders and step down transformers) are underway (Appendix B, Figure 5). Reachback has started to build the computer models of the electrical power distribution system using the existing relay settings information.

4.1.1.3 WO-LT-0063 Salang Tunnel Substation Technical Sections

The objective of this work order is to develop technical documents to tap the existing 220kV transmission line (T/L) between Pul-e-Khumri Substation (SS) and Chimtala SS to provide electrical power to a new 220/20kV SS located south of the Salang Tunnel, Baghlan Province, Afghanistan. The most notable customer served from this SS will be the Afghan Ministry of Public Works (MoPW) which owns and operates the tunnel.

The technical documents will contain sufficient detail for an EPC firm to continue the design and installation of the work. It is our understanding that USAID will deliver the technical documents to DABS. DABS will then solicit bids for the work and select an EPC contractor. This process is described as "on-budget".

It was suggested by DABS through USAID to design the substation with double tap, double bus and double transformer. Primary general arrangement and superimposed drawings were submitted to USAID. Contract preparation and bidding assistance services will be performed once site layout and redesign is approved by USAID.

4.1.1.4 WO-LT-0070 Tarakhil Power Plant Water Piping System

The objective of this work order is to support USAID's efforts in replacing the exterior water line that supplies the Fire Suppression System at the Tarakhil Power Plant. Tetra Tech will be preparing design and construction drawings and specifications for construction. Since Notice to Proceed, issued on 2 June 2013, the Tetra Tech team has participated in meetings to inform the Tarakhil Power Plant staff of the scope, objectives, and associated schedule. Site visits (Appendix B, Figure 7) have also been performed to collect data on the functionality of the existing gate valves and fire hydrants, which are intended to be reused in the new system if possible. Lastly, a survey team was procured to provide as-built drawings of the site to be used in the design phase of the project.

4.1.2 Multi-Disciplinary

A summary of work performed during the quarter by the water and sanitation sector included construction administration services, document review, project meeting attendance, and design input on a utilities project.

4.1.2.1 WO-LT-0006 Sardar Kabuli Girls High School Utility Construction Documents

Construction has continued at the USAID funded Sardar Kabuli Girls High School (SKGHS) Utility Construction contract. Construction administration services for grading and installation of utility facilities were supported. Water Tower (Appendix B, Figures 1 and 2) and Steel Bolted Water Storage Tank erection was completed. Electrical Transformer has been installed and low voltage electrical cable distribution has been completed. Temporary water was provided for the school. Tetra Tech AESP engineering staff assisted at meetings, reviewed shop-drawing submittals, site observation and provided technical responses for requests for information (RFIs) from the construction contractor.

4.1.3 Water Resources

No new work orders were approved for this sector during the second quarter. The water resources sector when utilized provides technical support, operations and maintenance cost estimates, document review, and design input to USAID.

4.1.4 Transportation

The following summary provides an overview of the work performed during the quarter by the transportation sector. A majority of the work performed included team building, scheduling support, and value engineering.

4.1.4.1 WO-LT-0009 Provincial Reconstruction Team (PRT) Support

During the quarter, the work order remained open awaiting instructions from USAID.

4.1.4.2 WO-LT-0009 Amendment 2 PRT Support – Bamyan Dam Sites Pre-Feasibility Studies

Tetra Tech AESP completed the conceptual design for the implementation of a low-head diversion dam in the Kalu Valley, Bamyan Province including preliminary design drawings; geotechnical and geologic data; stability and seepage analysis; hydrology and hydraulics analysis; conceptual engineering designs for the dam, penstock, and powerhouse; and cost estimation.

During the quarter, this amendment was closed on 27 April 2013.

4.1.4.3 WO-LT-0067 Gardez to Khost Road Value Engineering

Tetra Tech AESP provided USAID with technical support through a program of mentoring and capacity building. Under this work order Tetra Tech AESP's engineering staffs worked with Mashriq Engineering Construction Company (MECC) to baseline, implement their construction schedule, and develop timely and meaningful reporting of construction progress.

4.1.5 Vertical Structures

No new work orders were approved for this sector during the second quarter. The vertical structures sector when utilized provides technical support, operations and maintenance cost estimates, document review, and design input to USAID.

4.1.6 Technical Support and Services

A summary of work performed during the third quarter by technical support and services sector included claims assistance to USAID Office of Acquisition & Assistance (OAA), continuance of the women's internship program, media assistance, and training support.

4.1.6.1 WO-LT-0033 AMD1, AMD 2 and AMD 3 USAID/OAA Claims Assistance

Tetra Tech AESP provided OAA office claims assistance.

4.1.6.2 WO-LT-0042 Afghan Women Internship Program

Four interns were selected for the 2013 Tetra Tech AESP internship program which began on 12 January 2013. Three students are from Kabul University and one is from the Polytechnic University. Their respective educational backgrounds and experiences include structural engineering and construction, civil engineering, water resources engineering, and architectural engineering.

The interns spent much of this quarter participating in training, shadowing events and site visits. Most of these events were general studies to improve each intern's overall engineering experience. Three shadowing events (Appendix B, Figures 3 and 4) took place at USAID with infrastructure, water resources, and site engineers. Specific trainings, developed to increase their knowledge in hands-on field engineering applications, such as concrete and soils took place during the quarter.

The concrete training was given in three parts: a lecture on mix design, a concrete mixing activity, and a lab visit. Each of the interns was asked to do calculations for a specific concrete mix, which each of them physically made during the activity. After letting their concrete samples set for a few days, they then took them to the lab for testing. A soils training was also given in parts, one lecture and one lab visit. The purpose was to physically demonstrate theories learned in school with real soils and tests. Upon completion of both trainings, a site visit was done at a municipal roads project. Here, the interns observed road construction with a transportation engineer who explained the processes and flaws in construction.

4.1.6.3 WO-LT-0065 Media Assistance

Tetra Tech AESP continued to support the efforts of USAID to promote the good works they support in and around Kabul.

During the quarter work was completed on two videos. The first, a time-lapse captured the vehicle and pedestrian traffic on the Pule Pashto Bridge (Appendix B, Figure 6) for a twelve-hour period just outside of the city of Herat. Next, a similar project completed at Sardar Girls Kabuli High School captured the activities in the courtyard during the school day. Both projects were done with the editing and oversight of USAID Development Outreach and Communications (DOC).

4.1.6.4 WO-LT-0066 Training and Support

The objective of this work order is to introduce USAID Office of Economic Growth and Infrastructure (OEGI) staff to the Project Management Body of Knowledge and to prepare a select number of staff members for PMI professional certification exams, and support USAID's efforts in building project management capabilities and leadership skills of their Foreign Services Nationals in preparation of the "Transformational Decade" (2014-2024) in Afghanistan.

The training under this SOW is broken down into two tracks:

1. Project Management Professional (PMP) preparation training
2. Certified Associate in Project Management (CAPM) preparation training

Training will consist of a general overview of accepted project management concepts and techniques as recognized by the Project Management Institute (PMI). Participants will gain critical knowledge/skills in project management which will help OEGI teams to better manage project costs, schedules and quality.

4.2 Sector Activities Summary

Fiscal Year 2013 Q3 work order activity under this Task Order included work on two Administrative Work Orders and eleven Long Term Work Orders, and six Pending Long Term Work Orders. The following is a breakdown of the Work Orders by sector. (Table 4.2)

Table 4.2 Sector Activities Summary FY2013 Q3				
Sector	Work Order Type			
	Administrative Work Orders		Long Term Work Orders	
	Active	Pending	Active	Pending
Energy	0	0	4	4
Multi-Disciplinary	0	0	1	0
Water Resources	0	0	0	0
Transportation	0	0	2	0
Vertical Structures	0	0	0	0
Technical Services and Support	2	0	4	2

All the work initiated during the third quarter fell under the Administrative work order heading. A summary of the progress of each work order can be found in Table 4.3. A listing of FY2013 Q3 work orders can be found on the Work Order Status table included in Appendix A.

Table 4.3 Active Work Order Summary FY2013 Q3		
Work Order Number	Work Order Title	Summary of Work Completed FY2013 Q3
WO-A: Administrative Work Orders⁽¹⁾		
WO-A-0089	Salang Tunnel Substation Presentation	Tt AESP engineers produced the slides, awaiting completion of WO-LT-0063 to continue with presentation.
WO-A-0090	Tarakhil Fire Suppression Component Analysis	Fire suppression system at Tarakhil assessment to report short and long term repairs. Report completed – WO-LT-0070 is the follow on work to be completed. Work order closed during quarter.
WO-LT: Long Term Work Orders⁽²⁾		
WO-LT-0006	Sardar Kabuli Girls High School (SKGHS) Utility Construction Documents	Assisted at meetings, site observation, reviewed shop-drawing submittals, and responded to RFIs from the construction contractor.
WO-LT-0009	PRT Field Support	Awaiting instructions from USAID.
WO-LT-0009 AMD 2	Bamyan Dam Sites Pre-Feasibility Study	This work order was closed during the quarter.
WO-LT-0033 AMD 2/AMD3	USAID/OAA Claims Assistance	Continued review of claims for OAA.
WO-LT-0042	Afghan Women Internship Program	Four interns worked supporting engineering efforts. Site visits and training were provided to interns throughout the quarter.
WO-LT-0048	Engineering Study for 220kV Transmission Line from Dasht-E-Barchi to Kandahar	AMD 3 – AESP responses to bidders technical RFIs. AMD 4 - On hold until further notice from USAID.
WO-LT-0054	Reactive Power Compensation for PK to Chimtala	Work order closed.
WO-LT-0059	NEPS System Protective Relay Coordination Studies	Medium voltage network inspection is on-going. Existing relay data gathering is finished. Three monthly reports submitted.
WO-LT-0063	Salang Tunnel SS Technical Sections	Primary double tap, double bus and double transformer with substation footprint sent to USAID. Waiting for feedback.
WO-LT-0065	Media Assistance	Time-lapse videos created for Sardar Kabuli Girls High School and Pule-Pashto Bridge were submitted to USAID.
WO-LT-0066	Training and Support	Program development for Project Management Professional training for USAID Foreign Service Nationals.
WO-LT-0067	GK Road Value Engineering	Provide mentoring and capacity building through scheduling and reporting assistance with MECC.
WO-LT-0070	Tarakhil Power Plant Water Piping System	Site visits, material selection and surveying of site.
WO-LT-0072	Power System Study NEPS 2013 Projects	SOW and ROM created and submitted to USAID

Notes^(#):

(1) Work Orders with anticipated level of effort of 18-business days or less

(2) Work Orders that are planned to equal more than 18-business days

5.0 Pending Work Orders

5.1.1 Energy

5.1.1.1 WO-LT-0061 NEPS Connections to Customers

The original objective of this requested SOW was to develop technical documents in sufficient detail for selection of an engineering procurement and construction (EPC) contractor. The EPC contractor would continue the design and installation of the work to connect nearby customers to the proposed transmission line. Tt AESP is awaiting NTP.

██████████ (COR) requested work order cancelled on 4 June 2013

5.1.1.2 WO-LT-0064 Hisarshahi Industrial Park (HIP) SS Technical Sections

The objective of this work order is to develop new technical documents to extend a T/L from the existing 110kV bus at Ghawchak (New Jalalabad) SS to a new SS in Rodat District, Nangarhar Province. The new SS would provide electric power from DABS to the HIP and other nearby customers.

5.1.1.3 WO-LT-0072 Power System Study NEPS 2013 Project

The objectives of this work order is to support USAID in planning the NEPS electric transmission and generation system by identifying, analyzing, and documenting the impacts to the NEPS of several ongoing or planned projects.

The work will focus most heavily on the impacts of potential new import sources and generation, specifically the Turkmenistan-Arghandi 500 kVAC line, Sheberghan 200 MW thermal power plant and CASA-1000 500 kVDC HVDC project

Under this work order, Tt AESP will assist USAID in understanding the System Limited Transfer Capability (SLTC) of the proposed USAID Arghandi to Ghazni 220 kVAC transmission line with the DABS/Kabul power system. Tt AESP assistance will include the CASA 100 HVDC line, Turkmenistan 500 kVAC line and the Sheberghan generation described in the ADB Master Plan.

Tt AESP submitted a SOW and ROM cost estimate for above described work for approval on 26 June 2013.

5.1.2 Technical Services

5.1.2.1 WO-LT-0033 AMD 4

This objective of this work order is for Tt AESP to assist the USAID Office of Acquisition and Assistance (OAA) with evaluating settlement requests.

5.1.2.2 WO-LT-0071 FoHE Record Drawings and O&M Manuals

The objective of this SOW is to provide Record Drawings and O&M Manuals for the four Facility of Higher Education (FoHE) sites in Herat, Faryab, Jawzjan, and Balkh so ownership of the facilities may be transferred from USAID to Ministry of Higher Education (MoHE).

Tt AESP submitted a SOW and ROM on 14 May 2013 for USAID's consideration and approval. USAID determined that Tt AESP's expertise would best be utilized on other efforts; the pending work order was canceled on 27 May 2013.

Prepared for:



Prepared By:
Tetra Tech, Inc.
Afghanistan Engineering Support Program

5.1.2.3 WO-LT 0073 Energy and Water Capacity Building

The objective of this work order is to support USAID's efforts to broaden the capacity of the Ministry of Energy and Water (MEW) and the national electric utility called Da Afghanistan Breshna Sherkat (DABS) to carry out their core activities. This is to be accomplished through building the technical capacity of MEW/DABS staff and strengthening local universities and vocational training centers to produce qualified energy and water graduates for these institutions.

It worked to create a SOW and ROM to support USAID's efforts.



6.0 Financial

Obligated funding during FY2013 Q3 remained unchanged.

6.1 Invoices, Projected Burn Rates, and Reachback Usage

Table 6.1 Tetra Tech AESP Expenditures and Burn Rate FY2013 Q3		
Cumulative Expenditures through March 31, 2013		
April 2013		
May 2013		
June 2013 (Forecast)		
Total FY2013 Q3 Expenditures		
Cumulative Expenditures through June 30, 2013 (Forecast)		
Current Estimated Average Burn Rate per Month		

6.2 Contract/Task Order Issues

Status of Obligated Funds: Based on the current billing and projected burn rate, the [REDACTED] in Obligated Funding will be exhausted in November 2013.

Level of Effort Summary: As of June 30, 2013, 8,993 reachback workdays and 52,985 in-country workdays for a total 52,985workdays were expended.

7.0 Performance Indicators

Tt AESP efforts have been tracked and uploaded into the Afghan Info site. During the quarter, a performance indicator was identified and loaded on the Afghan Info site to report on. The performance indicator identified is as follows:

SUB-IR 6.2.2: Better Private Sector and GIROA Institutional Capacity in Roads Operations and Maintenance

6.2.2b Number of people trained in transport management fields

7.1 Capacity Building

In an effort to continue supporting USAID's efforts to create sustainable projects in Afghanistan by enhancing Afghan capacity to manage and maintain, the AESP provided the following capacity building efforts to the staff and USAID subcontractors:

7.1.1 AESP Staff

Two of the Tt AESP LN electrical engineers describe their field experience below that took place during the quarter:

[REDACTED], *Mid-Level Electrical Engineer*

The inspection of high, medium and low voltage transmission lines and transformers inspection e provided me with an opportunity to increase my knowledge about DABS standard, how to install the step-down transformers and what kind equipment's we can use. I have more experience in creating a work schedule and manage my work with DABS engineers. The schedule helped to make progress with our inspections and team work. I have an understanding of the way DABS chooses the size of fuses in the primary side of transformers and circuit breakers and in the secondary side of transformers, type of transformers and transformer stations they chose to install. I learned how long DABS expended the low voltage distribution system up to the customers.

The experience gave me the opportunity to put my knowledge to action, as I previously studied and did transmission line inspections before. I advised the DABS engineers about safety which is very important for electrical engineers and how to run conductors and SAG tension for the overhead conductors and testing the SAG tension, and right of way and clearance of the medium voltage transmission lines from the buildings and trees.

[REDACTED] *Junior-Level Electrical Engineer*

I visited the following substations for WOLT-0059 and downloaded relay settings via software:

- Chimtala Substation
- Kabul North Substation
- Kabul North West Substation
- Mazar-e-Sharif Substation
- Niababad Substation
- Pule-e-Khumri Substation
- Tarakhil Power Plant
- Sorobi Hydro-Power Plant
- Kabul East Substation

It was challenging yet very informative and along with DABS employees, I learned how to use different software. Tt AESP provided GE, AREVA and ABB software with manuals to DABS relay department. DABS relay department downloaded relay settings for the above mentioned substations for the first time. The most challenging one was Chimtala Substation, where we could not communicate with the relay but with the help of the Tt AESP Reachback team and after multiple



visits to the substation we could get the downloads and it was a wonderful experience, both for me and DABS relay engineer.

Inspection of MV feeders in the Kabul area provided me a broader view of the current distribution system. I inspected transformer stations where there were no fuses for protection, no disconnect switches which leaves the system in a poor condition and it is even more unsafe for the operators. I noticed many cases where electricians were electrified.

Despite all the problems in electrical network, I have a belief that Tetra Tech is improving the medium voltage feeder's condition.

7.1.2 USAID Subcontractor

Tt AESP provided training to MECC's project management team on utilizing their scheduling tool Primavera for construction management. Tt AESP assisted five employees from MECC with the creation of a baseline schedule for the construction on the Gardez-Khost road. The focus of the training was to capture the progress in the field. Support by Tt AESP will continue into FY Q4.

Tt AESP continues a concerted effort to build individual capacity of the LN staff to prepare them for positions with private business, government ministries, USAID, and other entities within Afghanistan.

Appendix A
Work Order Status

FY 2013 Q 3 WORK ORDER STATUS

Afghanistan Engineering Support Program

IQC: Task Order 01 - EDH-I-00-08-00027-00

USAID Technical Office: USAID/Office of Economic Growth and Infrastructure (OEGI)

Work Order Number	Program Type	Description	Status	Estimated Cost (ROM)	In Country Cost to Date	Reach Back Cost to Date	Incurred Cost to Date
WO-A: Administrative Work Orders							
WO-A-0089	TS	Salang Tunnel Substation Presentation	Open				
WO-A-0090	TS	Tarakhil Fire Suppression Component Analysis	Closed				
WO-LT: Long Term Work Orders							
WO-LT-0006	MULTI	SGHS Utility Construction Documents	Open				
WO-LT-0009	T	PRT Field Support	Open				
WO-LT-0009 AMD 2	T	PRT Field Support - Bamyan Dam Sites Pre-Feasibility Studies	Closed				
WO-LT-0033 AMD 2	TS	USAID/OAA Claims Assistance	Open				
WO-LT-0033 AMD 3	TS	USAID/OAA Claims Assistance	Open				
WO-LT-0042	TS	Afghan Women Internship Program	Open				
WO-LT-0048	E	Engineering Study for 220kV Transmission Line from Dasht-E-Barchi to Kandahar	Open				
WO-LT-0059	E	NEPS System Protective Relay Coordination Studies	Open				
WO-LT-0063	E	Salang Tunnel SS Technical Sections	Open				
WO-LT-0065	TS	Media Assistance	Open				
WO-LT-0066	TS	Training and Support	Open				
WO-LT-0067	T	GK Road Value Engineering	Open				
WO-LT-0070	E	Tarakhil Power Plan Water Piping System	Open				
Pending Work Orders							
WO-LT-0033 AMD 4	TS	Claims Assistance - LBG	Pending		\$0	\$0	\$0
WO-LT-0061	E	NEPS Connections to Customers	Cancelled		\$0	\$0	\$0
WO-LT-0064	E	Hisarshahi Industrial Park (HIP) SS Technical Sections	Pending		\$0	\$0	\$0
WO-LT-0071	TS	FoHE Record Drawings and O&M Manuals	Cancelled		\$0	\$0	\$0
WO-LT-0072	E	Power System Study NEPS 2013 Projects	Pending		\$0	\$0	\$0
WO-LT-0073	TS	Power System Study NEPS 2013 Projects	Pending		\$0	\$0	\$0

Energy	
Water Resources	
Vertical Structures	
Transportation	
Water and Sanitation	
Multi-Disciplinary	
Technical Support	

Appendix B
FY13 Q3 Photographs



Figure 1 WO-LT-0006 SKGHS High School Water Tank



Figure 2 WO-LT-0006 SKGHS Water Tank



Figure 3 WO-LT-0042 Interns Embassy Site Visit w/USAID



Figure 4 WO-LT-0042 Interns Learning Water Testing



Figure 5 WO-LT-0059 MV Inspection F527-MY 061



Figure 6 WO-LT-0065 Pule Pashto Bridge, Herat City



Figure 7 WO-LT-0070 Tarakhil Thermal Power Plant Survey

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