

The Afghanistan Engineering Support Program assembled this annual 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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FROM THE AMERICAN PEOPLE

ENGINEERING SUPPORT PROGRAM

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

Task Order No. 1

Annual Report 2014



January 18, 2015

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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January 18, 2015



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)
Annual Report FY2014**

Dear ,

It is with great pleasure that Tetra Tech submits this Annual Report for fiscal year 2014, as provided in section C.5, "Deliverables," paragraph G of the above referenced Task Order. This report presents the activities for the period of October 1, 2013 through September 30, 2014.

Tetra Tech AESP was originally contracted for five years ending on November 8, 2014. However, late in FY2014 USAID opted to extend the AESP for one additional year. The Year 6 extension is authorized by Task Order Modification No. 23 dated September 24, 2014. It extends the program from November 8, 2014 through November 8, 2015.

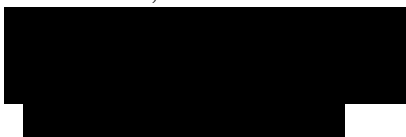
Long term work order 0048: the study and design of a 450 km, double circuit, 220 kV transmission line and seven substations between Arghandi and Kandahar East continued through FY2014, and has been the major activity for AESP since 2012. This transmission line, when complete, will connect the Northeast Power System (NEPS) with the Southeast Power System (SEPS) between Kabul and Kandahar. The NEPS-SEPS transmission line and attendant substations will cost approximately \$450 million when complete.

Tt AESP also served the Transportation, Vertical Structures and Water Resources sectors during FY 2014. Work also progressed on other Electrical sector work orders, in addition to the NEPS-SEPS connector including: work order LT0059 for improvements to the Kabul medium voltage distribution system, LT0063 for design of a new substation at the Salang Tunnel, and work order LT0070 for ongoing technical services at the Tarakhil Power Plant. AESP also supported the construction of the Gardez-Khost Road Phase IV performing review of construction submittals and completion of the GK Road Bridge 9 and Bridge 10 redesigns.

We look forward to continuing our support of the USAID OEGI mission during FY2015, and to strengthen our partnership while building a brighter future for Afghanistan.

Please contact me at your convenience should you have any comments regarding this report.

Respectfully,
Tetra Tech, Inc.



Chief of Party (AESP)

AFGHANISTAN ENGINEERING SUPPORT PROGRAM

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

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

PROJECT OVERVIEW

The Tetra Tech (Tt) Afghanistan Engineering Support Program (AESP) provides: planning, design, engineering, and technical oversight support while contributing to local national capacity building and mentoring through collaboration and coordination with the United States Agency for International Development (USAID), Afghanistan Office of Economic Growth and Infrastructure (OEGI). Tt AESP performs activities that complement and reinforce the activities and engineering expertise of USAID OEGI staff in energy, transportation, vertical structures, and water and sanitation sectors.

Tt AESP consists of a Kabul-based core of expatriate engineering professionals leading a competent staff of local Afghan engineers and support professionals, including 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, 2015
- Prime Implementing Partner: Tetra Tech
- Teaming Partners/Sub-awardees: Power Engineers, USACC, GardaWorld, SMART Engineers
- Geographic Coverage: Afghanistan, See Figure 1 below

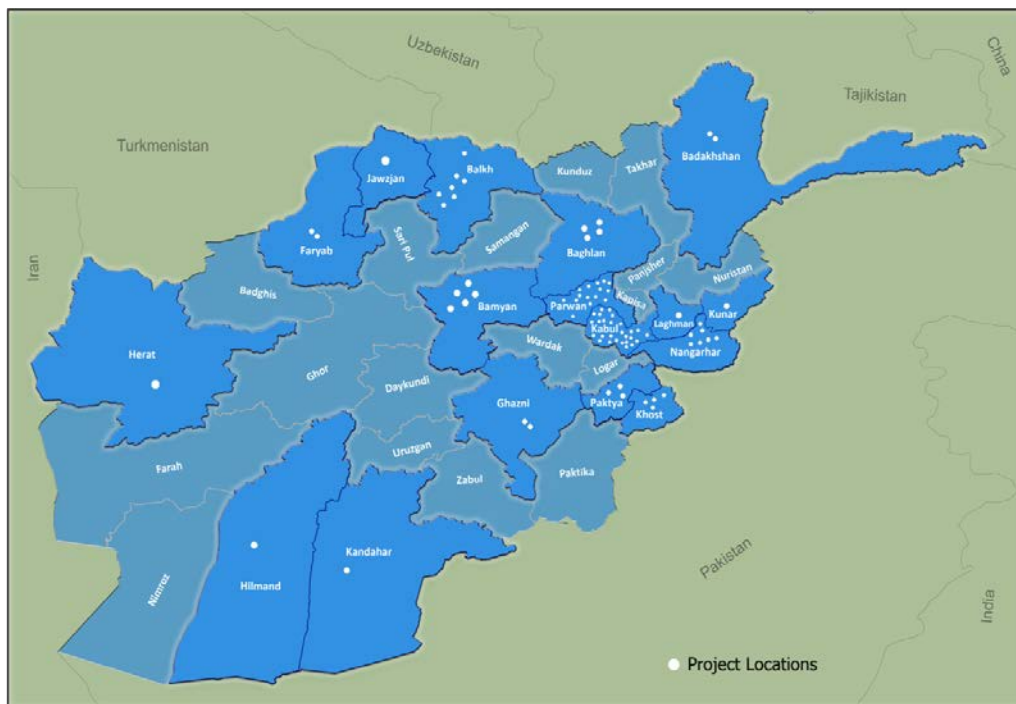


Figure 1: 2009 – 2014 Tt AESP Project Locations by province, Afghanistan

EXECUTIVE SUMMARY

The Fiscal Year (FY) 2014 Annual Report summarizes the work completed, underway, and pending for the Afghanistan Engineering Support Program (AESP), Task Order (TO) EDH-I-00-08-00027-00, Task Order No.1. Tetra Tech (Tt) AESP provides engineering support under this task order. This report covers Tt activities performed during FY 2014 spanning October 1, 2013 to September 30, 2014.

During FY 2014, Tt AESP worked on 7 administrative work orders and 22 long term work orders. Subsequently, Tt AESP submitted 290 deliverables in FY 2014 ranging from the final bridge designs for Bridge 9 and Bridge 10 of the Gardez-Khost Road, to the conceptual designs for the NEPS/SEPS

transmissions lines from Ghazni to Kandahar East. In addition, Tetra Tech helped develop 8 for bid RFPs and is currently working towards the completion of 4 others. The total worth of all of the RFPs for FY2014 is [REDACTED]

Highlights of the quarter within each sector and technical support and oversight services 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

Increasing access to electricity has remained a top economic priority for Afghanistan. Tt AESP has supported this effort through a number of energy work orders.

Afghanistan Northeast Power System (NEPS) Protective Relay and Coordination studies (WO-LT-0059) involved working closely with the Da Afghanistan Breshna Sherkot (DABS) relay department to conduct extensive field inspections and collect relay settings from the medium voltage electric power distribution system in Kabul. Tt AESP modeled all 71 medium voltage feeders comprising the Kabul Distribution System and completed work on Task 14 to develop protective settings for all substation relays in Kabul. The for-bid RFP for the relay settings work was submitted on May 8, 2015.

USAID also requested through LT0059 Amendment 1 that Tt AESP prepare documents for upgrading 10 Kabul medium voltage distribution feeders and develop a NEPS distribution materials and installation specifications report for that purpose. That request includes drawings and specification of distribution materials for procurement. LT0059 Amendment 2 also included work on an additional 61 feeders, making 71 total medium voltage distribution feeders scheduled for upgrades at amendment completion.

The Salang Tunnel Substation work order LT0063 currently has six completed amendments. Under Amendment 6, Tt AESP submitted the final detailed substation design which included plans and specifications for the Salang Tunnel Substation. Amendment 4 is the Salang Tunnel Pre-Purchase Equipment Specification, including a for-bid RFP submitted to DABS through USAID on January 9, 2014. DABS subsequently received bids in March and May, 2014 for the pre-purchase equipment. Currently, Tt AESP is assisting DABS with the technical bid evaluations which will continue into FY 2015.

Tt AESP continued to make progress on WO-LT-0072: Power System Analysis of Proposed NEPS Improvements, by coordinating with the key donor agencies contributing to improving the energy sector within Afghanistan. Tt AESP completed and submitted the PSS/E modeling study plan, and review of that plan by others is ongoing. The Tt AESP continues to coordinate with all key donors and closely monitors the current energy situation in Afghanistan that could impact the LT0072 study plan, such as potential gas reserves in Sheberghan.

During this fiscal year, members of the Tt AESP team were deployed to troubleshoot instrumentation and control issues at the Tarakhil Power Plant (LT0070). The troubleshooting team was successful in restarting Power Block "B" which had not been operational in over nine months. Within two weeks of being in country, the Tt AESP team started the engines. Currently all six Power Block B engines are operational.

Technical Support and Oversight

In FY 2014 AESP has had diverse and successful work orders within the Technical Support and Oversight sector, spanning from disaster assistance to promoting gender equality within Afghanistan.

Tt AESP provided rapid-response services related to a landslide in Badakhshan Province. The Tt AESP team coordinated with the Afghan Air Force to provide transport to Badakhshan. A geotechnical subcontractor was mobilized to the site to collect in-situ soil test data, perform physical tests of the landslides, and documented the extent of physical fracturing that may cause future slides. The team met with village elders who assigned two community members to support the data collection by acting as

guides for the team. Despite working in a conflict area and having challenging travel conditions, the team was able to safely and successfully collect the required data.

Acting in the capacity as technical advisors, Tt AESP used its freedom of mobility to assist USAID by providing field observations for the Regional Command North Project Evaluations/Regional Command East Project (WO-LT-0009, AMD 5 and 6). This year, Tt AESP has started the process of uploading the reports to the Afghan Info website. We feel this work order has greatly increased the knowledge expertise of the project inspectors and engineering staff. The technical support included a seminar on effective writing, performed by the MIS Manager at the Tt office.

Under the Afghan Women Internship Program (WO-LT-0042), Tt AESP completed its third successful year of the program. Tt AESP selected four women for the internship program. The women began work in mid-January. In mid-February, the interns began shadowing USAID engineers. The interns also gained other job skills in: resume building, interview preparation, and giving presentations. The internship program also gave our interns leadership opportunities. For example, during the demobilization of an expatriate an intern stepped into the lead technical role for the Afghan Women's Internship Program. The majority of our interns go on to be hired by leading firms. From the 2014 class two were hired by Tt AESP and another was hired by IRD to support the Kajaki Dam project.

In addition to the training and mentorship provided to the Tt AESP interns, under WO-LT-0066, Training and Support, Tt AESP funded 11 memberships with the Professional Management Institute and 1 exam fee. We remain committed to working with other participants through funding memberships and exam fees.

Transportation

Tt AESP provided guidance to Mashriq Engineering Construction Company (MECC) project scheduling efforts on the Gardez-Khost (G-K) Road construction and teamed with USAID OEGI to mentor MECC staff using Primavera P6 scheduling software. Tt AESP reviewed and finalized as-built drawings so the roads could be turned over to the Ministry of Public Works.

Upon request from USAID, Tt AESP redesigned a three span bridge to replace a damaged bridge on G-K Road as part of WO-LT-0077. The final design for Bridge #9 was submitted to USAID on March 31, 2014. Tt AESP received a request following this submittal to perform a scour analysis of Bridge #10. The final design for Bridge #10 was scheduled for submittal in October 2014.

Acting in the capacity of technical advisors, Tt AESP used its freedom of mobility to assist USAID with field support for the Parun Road Project (WO-LT-0009 AMD 7). Tt AESP was tasked with providing project evaluation and supervision services in connection with this road construction project in Nuristan Province.

Vertical Structures

Coupled with its engineering capacity, Tt AESP used its freedom of mobility to assist USAID with remote field observations for the Regional Command North/Regional Command East Project Evaluations (WO-LT-0009 AMD 5 and 6). Twenty-nine (29) site visits to separate RAMP UP projects were completed under AMD 5 in Regional Command North and twenty-five (25) site visits were completed under AMD 6 in Regional Command East. Sites included remote locations in Northern and Eastern Afghanistan.

Constraints and Critical Issues

Security conditions remained a significant factor in determining what work was able to be completed in country. The Tt Villa remained a practical options for holding meetings for USAID, other implementing partners, and stakeholders. Thereby reducing the risks of travel around Kabul and resolving problematic security situations.

Weather also proved to be a constraint on many of the projects. The Salang Tunnel construction season is extremely short (from the first snow fall to snow melt) making an aggressive construction season necessary. Anticipating these weather constraints and building site challenges, a plan was

devised for three RFP packages: long lead items, works, and construction. The intent of the plan was to be able to complete the construction in a one-year timeframe.

The weather also played a large part in landslides that occurred in Badakhshan Province. The weather conditions combined with security concerns, made access to the site extremely challenging. Tt AESP, through extensive planning, was able to get staff on the ground to complete an assessment of the conditions.

Summary

As described above, Tt AESP has provided USAID OEGI with diverse engineering expertise and dynamic support throughout Year 5. The versatility of the Tt AESP program is evident in the variety of deliverables submitted to USAID OEGI and the program's support for USAID goals and objectives. Tt AESP will remain flexible and mobile in FY 2015 to support work orders issued by USAID OEGI and continue the program's support for capacity building and gender equality in Afghanistan.

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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 infrastructure projects and related engineering activities, in accordance with the basic USAID OEGI Architect and Engineer (A&E) IQC contract statement of work. An IQC contract creates work orders to track individual projects. Work orders fall into one of two categories: administrative or long-term. Administrative work orders are defined as tasks requiring a total level of effort 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.

Tt AESP supports USAID OEGI's mission throughout Afghanistan using both types of work orders. For tracking purposes work orders are broken into one of the following sectors: Energy, Vertical Structures, Transportation, Water, and Sanitation; as stated in the Tt AESP contract. If the work requested falls outside the sectors above, it is considered in the sector of Technical Services and Oversight. Out of the five identified categories, the majority of Tt AESP's work this quarter supported the energy sector and provided technical services across sectors.

Table 1 below describes the work order activities performed during the second quarter.

Table 1: Summary of Work Completed During FY 2014

Number	Work Order Title	Summary of Work Completed
WO-A-0089	Salang Tunnel Substation Presentation	Tt created a power point presentation for a Ministry of Public Works briefing. The work order was closed during the first quarter.
WO-A-0091 & WO-A-0092	Technical Assistance to DABS on PCs	Tt provided technical assistance to prepare DABS for the submission of conditions precedent documents for the initial disbursement of USAID on-budget funds under the PTEC project.
WO-A-0093	Technical Assistance to US Embassy Support PP	Tt assisted the US Embassy with needed trip adjustments to their power plant circuit breaker controller. The work order was closed during the first quarter.
WO-A-0094	Salang Tunnel Exhibit Support	Tt provided simplified Salang Tunnel exhibits for use by USAID-OEGI for ministry presentation. The work order was closed during the first quarter.
WO-A-0096	Badakhshan Technical Assistance	Tt provided site reconnaissance and data gathering for USAID. The data provided support for assessing and providing aid to the landslide event in Badakhshan Province.
WO-A-0097	Deh-Asuda Check Dam	Tt provided a review of the Deh-Asuda Check Dam construction documents prepared by KFZ-IRD. Tt reviewed the Deh-Asuda Check Dam concept design and sent a Technical Memo consisting of general comments regarding the

		suitability of the proposed dam to USAID on July 7, 2014.
WO-A-0098	Kabul Basin Aquifer Feasibility Study	Tt reviewed existing technical documentation to determine if a full feasibility study addressing the implementation of an Aquifer Recharge System (ARS) in the Kabul River Basin would be a logical step forward. Tt submitted a Technical Memo which includes a discussion of key pre-feasibility study elements and data requirements needed to move forward on September 17, 2014.
WO-LT-0006 AMD 5	Sardar Girls High School – Construction Administration Services	The construction work at Sardar Girls High School was completed during the first quarter and this amendment was closed.
WO-LT-0009 AMD 5	Regional Command (RC) North Project Evaluations	Tt performed site visits of RC North projects during the first quarter. The work order included a review of specific project documentation, onsite observation of visible completed works, preparation of documentation to verify completed works, photographs and any other necessary information. Twenty-one (21) projects in 11 provinces were visited.
WO-LT-0009 AMD 6	Regional Command (RC) East Project Evaluations	Tt performed site visits of RC East projects during the first quarter. The work order included a review of specific project documentation, onsite observation of visible completed works, preparation of documentation to verify completed works, photographs, and any other necessary information. Twenty-five (25) projects in 14 provinces were visited.
WO-LT-0009 AMD 7	Parun Road Field Support	Tt received a work order request on June 3, 2014 to provide project evaluation and supervision services in connection with the Parun Road construction in Nuristan Province. Tt submitted a revised SOW/ROM on July 6, 2014 and received NTP on July 8, 2014. Tt mobilized verification and geotechnical teams.
WO-LT-0042	Afghan Women Internship Program	Tt developed a curriculum and schedule for the Afghan Women Internship Program. Interns spent much of this year participating in training, shadowing events, meetings, software training, asphalt training, cost estimation training,

		and on-the-job training. The interns were asked to participate in some basic engineering work for several work orders. Four women participated in the 2014 program.
WO-LT-0048 AMD 1	Engineering Study for 220kV Transmission Line from Dasht-e-Barchi to Kandahar	Tt created a technical SOW for low voltage distribution. Tt also assisted DABS in developing a RFP package, responding to bidder's technical questions, and assisted in technical evaluation of bidders. This amendment was completed and closed in the second quarter.
WO-LT-0048 AMD 2	Engineering Study for Adjustments to the Proposed Dasht-e-Barchi SS to Kandahar East SS Transmission Line	Tt provided design creation on several high voltage substations. This amendment was completed and closed in the second quarter.
WO-LT-0048 AMD 3	Transmission Line and Substations from Arghandi to Ghazni	Tt delivered Technical Sections for the proposed 220kV transmission line from Arghandi to Qarabagh for procurement and construction. This amendment was completed in the second quarter
WO-LT-0048 AMD 4	Qarabagh to Kandahar East Substations	This amendment tasked Tt AESP to create and deliver a technical section (Volume 2) for a 220kV transmission line and substations from Qarabagh to Kandahar East. This was subsequently changed to just the development of the technical section for the proposed substation(s) from Ghazni City to Kandahar East. The five substations included in this RFP are: Qarabagh, Gelan (Moqor), Shah Joy, Qalat, and Kandahar East. The work to be completed is similar to the support provided under Amendment 3. Notice to proceed was issued in September 2012. Tt AESP received notice to revise the SOW/ROM based on lessons learned from Amendment 3. Tt submitted a revised SOW/ROM Rev7 on June 18, 2014 and received NTP on July 16, 2014. Kabul delivered concept design documents and reachback delivered technical sections to incorporate into as RFP for advertising in the FY15 Q1.
WO-LT-0048 AMD 5	Transmission Lines from Ghazni to Kandahar East	USAID OEGI requested a SOW and ROM to create and deliver a Technical Section (Volume 2) for the proposed transmission lines from Qarabagh to Kandahar East. Tt AESP submitted a revision during the quarter. This work

		order remained open with continued work on revisions to the SOW/ROM. Kabul delivered concept design documents and reachback delivered technical sections to incorporate into as RFP for advertising in the FY 2015.
WO-LT-0048 AMD 6	RPC At Kabul and Kandahar East	USAID OEGI requested a SOW and ROM to provide engineering support to the build out of the 220kV Northeast Power System (NEPS) to the Kandahar East electrical power distribution system (part of the Southeast Power System or SEPS). It submitted the SOW/ROM on June 08, 2014 and received NTP on June 16, 2014. The work is progressing. Development of technical sections will continue during FY15 Q1 for anticipating RFP for advertising by the end of the first quarter of FY 15.
WO-LT-0059 AMD 1	NEPS Distribution Materials and Installation Specification Development	This amendment came online as a result of the investigation and analyses completed under WO-LT-0059 Relay Coordination Study. Deficiencies identified in the MV system resulting from a lack of materials including, MV distribution fuses and fuse links. The scope encompasses technical services, material specifications, procurement support, installation training, and guidance and maintenance of the specified materials. Work performed during the quarter included the creation of field installation guides for 10 MV feeders. Each field installation guide includes a general arrangement/single line drawing identifying the location of the protective equipment to install. The guides illustrate the general arrangement of fuses, cutouts, and supports for installation on existing Kabul area MV distribution poles. It submitted 61 installation guides to DABS. It sent the closeout evaluation form to USAID on August 28, 2014.
WO-LT-0059 AMD 2	NEPS Distribution Materials and Installation Specification Development	USAID OEGI requested a SOW and ROM to create field installation guides for the remaining 61 MV feeders identified under WO-LT-0059 Relay Coordination Study. It submitted 51 installation guides to DABS. The work order closed out during the fourth quarter. It sent the closeout evaluation form to USAID on August 28, 2014.

WO-LT-0059 AMD 3	NEPS Kabul Area Substation Assessments	USAID OEGI requested a SOW and ROM to provide further assessments of Kabul North, Northwest, and MW Radio Substations to identify other deficiencies beyond the protective relay coordination scope of WO-LT-0059 Task 14. The assessments are to include a review of components that are old, obsolete, or in need of repair on the HV and MV systems. Which include circuit breakers, switchgears, and conductors. The assessments provide recommendations, and technical documents to implement the upgrades or revisions. Task 2 Assessments and Recommendations Report submitted on November 11, 2014.
WO-LT-0059 AMD 4	Kabul MV Safety, Training and Equipment Specifications	It was given NTP to develop a SOW and ROM on 2/19/14 to develop training programs. AMD4 has been concurred and incorporated into another IP's (Phoenix) scope of activities. The work order was canceled during the fourth quarter.
WO-LT-0063 AMD 4	Salang Tunnel SS Pre-purchase Specs	Tt AESP was asked to develop performance specifications for long lead high voltage (HV) substation equipment, MV equipment and relay/control equipment. Tt received and evaluated Pre-Purchase Equipment Specifications bids. Tt Received Pre-Purchase #2 Equipment Specification #1 bids on June 3, 2014. Salang Tunnel design and specifications have been incorporated into RFPs for advertising during the third quarter.
WO-LT-0063 AMD 5	Salang Tunnel SS Survey and Geotech	Tt was tasked to obtain the survey and geotechnical information necessary for the development of the proposed new substation. The Revised Geotechnical Report was submitted Dec 11, 2013.
WO-LT-0063 AMD 6	Salang Tunnel SS Detailed Design	Salang Tunnel design and specifications have been incorporated into RFPs for advertising during the third quarter.
WO-LT-0064	Sheikh Misri to Rodat T/L and SS Technical Sections	Tt received NTP on Sept 15, 2013 for this work order to develop technical documents with sufficient detail for a design/build RFP. The RFP was to design and construct a 220kV T/L that will deliver power from Jalalabad to HIP. The Technical Section and RFPs for new substations in Jalalabad and Rodat were completed and sent to USAID/DABS. The

		WO was suspended during the third quarter and is awaiting further directive.
WO-LT-0065	Media Assistance	Tt supported USAID Office of Economic Growth and Infrastructure (OEGI) and the Development Outreach and Communication Office (DOC) under this work order. Tt AESP Team have met with interviewees and captured interviews on video. The videos are available. The AESP Team attended DOCS office Workshops.
WO-LT-0066	Training and Support	The work order objective was to introduce USAID OEGI staff to Project Management Body of Knowledge and prepare 30 OEGI staff members for professional (PMI) certification. Training was conducted during the first quarter.
WO-LT-0067	Gardez Khost Value Engineering	Tt AESP worked with MECC to perform baseline activities, implement their construction schedule, and develop timely reports for Phase 3 of the road construction.
WO-LT-0070	Tarakhil Power Plant Water Piping System	Tt submitted Final Design Drawings and Specifications. Construction RFP to DABS on July 3, 2014.
WO-LT-0070 AMD 2	Firefighting Analysis	Tt reviewed all documentation regarding the existing fire suppression systems installed at Tarakhil Thermal Power Plant. Including all available as-built drawings, design calculations, test results, inspection/maintenance reports for the automatic sprinkler and foam suppression systems. STTA mobilized on July 11, 2014 and completed field work. Tt submitted Fire Fighting Analysis report on September 29, 2014.
WO-LT-0070 AMD 3	Tarakhil Power Plant Site Visit and Power Block "B" Control Assessment	Tt provided technical services and assessment of the current conditions at the TTPP. Tt identified problems with the Programmable Logic Controller and other control issues in Power Block B. The final report was submitted on April 22, 2014.
WO-LT-0070 AMD 4	Tarakhil Power Plant Power Block A, B and C Controls Repair	Tt submitted SOW/ROM to USAID on July 7, 2014 and received NTP for task 1&2 on July 27. The SOW/ROM was revised during the fourth quarter. The work order remained open during the year.

WO-LT-0072	Power System Analysis of Proposed NEPS Improvements	Tt submitted a Transit Memo that addresses the transit of power through Afghanistan to Pakistan using the NEPS infrastructure to USAID on Jan. 8, 2014. Power flow study recommendations were delivered in late 2013 and submitted to USAID for concurrence. The WO was on-hold at the end of the fourth quarter.
WO-LT-0074	Annual Road Operations and Maintenance Cost Budgets	Tt AESP completed an evaluation and report on operations and maintenance budgets for USAID OEGI. The report was on completed road construction within two roadway programs that are, or will become, the property of the GIRoA: Strategic Provincial Roads and Gardez-Khost Road.
WO-LT-0077 AMD 1	Gardez to Khost Bridge No. 9 Survey and Geotechnical Services	Tt received NTP on December 26, 2013 to conduct field work, including a survey and geotechnical reports. The work was completed by two subcontractors by January 29, 2014.
WO-LT-0077 AMD 2	Gardez to Khost Bridge No. 9 Design and Bid Services	Tt received NTP on January 4, 2014 to prepare a 100% detailed design of the Bridge No. 9 replacement and construction documents. Final Design was submitted 03/31/2014.
WO-LT-0077 AMD 3	Gardez to Khost Bridge No. 10- Scour Analysis and Foundation Study	The objective of this amendment was to provide a review of scour impacts and foundation stability of Bridge 10 based on the current design. Final report and recommendations were submitted to USAID on July 30, 2014.
WO-LT-0077 AMD 4	Gardez to Khost Bridge No. 10 Bridge and Roadway Redesign Services	The objective of this work order was to redesign Bridge 10 and deliver construction drawings and specifications to USAID. The work was ongoing at the end of the fourth quarter.
WO-LT-0078	NEPS Kabul Area Distribution Master Plan	Tt developed a Scope of Work to deliver to USAID a master planning road map. The plan would allow DABS to plan for expansions and seek donor partners to develop an integrated Medium Voltage, 110kV High Voltage, and 220kV High Voltage power distribution system. Tt submitted SOW/ROM on February 24, 2014 and is awaiting NTP from USAID. WO suspended-awaiting further directive.
WO-LT-0079	Transformer Rewinding Facility Assessment	Tt developed a Scope of Work for: assessment of the problems that the manufacturing factory is encountering,

		development of equipment and machinery lists and specifications for upgrade, and development of design and budget for plant refurbishment. Tt completed a field investigation under task 1 of this work order. Tt submitted a memo documenting fulfillment of Task 1 to USAID on July 27, 2014. Task 2 Report, Drawings and Cost Estimation were submitted on September 21, 2014.
WO-LT-0080	Meter Box and Low Voltage Distribution Panel Manufacturing Facility Assessment	Under this work order, Tt provided manufacturing facility assessments. The objective was to identify the facility modifications and equipment required at DABS' Meter Box and Low Voltage Distribution Panel Manufacturing Facility. Further goals were to make the facility fully functional based on current and future production requirements. Tt completed a field investigation. A Technical Memo to identify the results of this field investigation was submitted on June 28, 2014.
WO-LT-0081	Concrete Pole Manufacturing Facility Assessment	Under this work order, Tt provided manufacturing facility assessment. The facility assessments identified the facility modifications and equipment required at DABS Concrete Pole Manufacturing Facility to make the facility fully functional based on current and future production requirements. Tt completed a field investigation to collect data in order to the lack of concrete pole manufacturing production. Tt submitted a Technical Memo to identify the result of this field investigation on 07/22/2014. Tt submitted the Task 2 Report to USAID on September 27, 2014. The work order remained open during the year.
WO-LT-0082	Engineering Support FoHE	Tt submitted a SOW/ROM to USAID on April 16, 2014 and received NTP on May 18, 2014. The work order remained open although work was not performed during the year.
WO-LT-0083	Kandahar 10MW PV Plant	Tt submitted a SOW/ROM to USAID on June 29, 2014. Tt submitted the final report on July 30, 2014.
WO-LT-0083 AMD 2	Kandahar Area Design Optimization with Turbo Generators	Tt submitted a SOW/ROM on September 7, 2014. The work order was pending

		during the first quarter and received NTP on November 6, 2014.
WO-LT-0084	G-K Road Phase 4	Tt submitted SOW/ROM Rev1 to USAID on August 2, 2014 and received NTP on the same date. Tt to review, track, and comment on submittals received commencing on August 5, 2014 and ongoing. The work is in progress.
WO-LT-0086	Kajaki Dam Claims	Tt submitted a SOW/ROM to USAID on July 29, 2014. The work order is on hold.

1.2 KEY ACTIVITIES PLANNED FOR FISCAL YEAR 2015

Table 2 below describes significant work order requests and ongoing activities planned for FY 2015.

Table 2: Summary of Work Planned for FY 2015

Number	Work Order Title	Summary of Work Planned
WO-LT-0091	SEPS Completion	USAID requested development of a SOW/ROM for completion of certain substations and transmission lines in Helmand and Kandahar provinces between Kajaki and Sangin South, Kajaki and Tangi, and between Kandahar East and Maiwand. This work will be a combination of concept design and detailed design in support of requests for EPC bid proposals.
WO-LT-0090	Quality Assurance Monitoring and Evaluation (QA)	USAID requested the development of a SOW/ROM to assemble a team of engineering and management personnel to perform quality assurance and monitor and evaluate the implementation of the NEPS-SEPS Connector and other USAID projects.
WO-LT-0084	Gardez Khost (G-K) Road Phase IV Construction Submittal Reviews	Tt AESP will continue to support the USAID G-K Road Phase IV construction with engineer review of over 472 structure submittals.
WO-LT-0083 AMD 1	Cost-Benefit Analysis of the NEPS-SEPS Connector	Tt is standing by while USAID evaluates the requirements and scope for a cost benefit analysis of the NEPS-SEPS Connector and possibly the entire PTEC program.
WO-LT-0083 AMD 2	Kandahar Area Design Optimization with Turbo Generators	Tt submitted a SOW/ROM to USAID on September 15, 2014 to evaluate retrofitting four diesel power plants in Kandahar Province with turbo generators

		to improve fuel efficiency. If shown to be cost effective, a detailed design and request for bid proposals may be prepared for implementation.
WO-LT-0083 AMD 3	SEPS Solar Power Coordination Study	It is standing by while USAID develops the requirements for a conceptual design to support the coordination of multiple solar power plants in Kandahar Province using a public private partnership (P3) delivery approach.
WO-LT-0070 AMD 4	Tarakhil Thermal Power Plant SCADA Upgrade	Tt AESP will implement a comprehensive SCADA upgrade at the Tarakhil Thermal Power Plant to replace obsolete equipment and deploy an improved network architecture that when complete will improve operations effectiveness. Tt AESP will also continue its ongoing support of other Tarakhil improvements including CMMS, fire suppression water and foam system repairs, fire alarm system repairs and brigade training.
WO-LT-0063 AMD 6	Salang Tunnel Substation	Design of the Salang Tunnel Substation was completed by AESP during FY 2014. AESP will continue to support the implementation of this project with bid evaluation, RFI responses and engineering support during construction to be determined.
WO-LT-0042 AMD 4	Afghan Women Internship Program	USAID has requested a SOW/ROM to continue the very successful AESP Afghan Women Internship Program through the 2015 academic year. Previous program academic years included 2011, 2012, and 2013. This internship program provides on-the-job training and other real world engineering opportunities to four Afghan women in their fourth year of college at local Kabul universities.

1.3 LESSONS LEARNED

Following sound development practices, AESP submits an evaluation form after the completion of all work orders. This year, 18 evaluations have been requested and 6 completed evaluations have been returned by September 30, 2014. These returned evaluations gave AESP: 3 Excellent, 1 Above Average, and 2 Satisfactory ratings. The comments suggested more attention to detail and USAID comments. As a result, AESP has focused on improving internal QA and QC to ensure quality and detail oriented work for the upcoming year.

1.3.1 Evaluations/Assessments/Audits

The USAID Financial Audit which began during the last quarter of FY 2013, was finalized during FY 2014. The summary of report findings, Tetra Tech responses and planned actions are described in Table 3 below.

Table 1: Audit Summary

Number	Finding	Tt Response	Action
1	Base salaries of expatriates were charged to project before the approval of Contracting Officer.	Tetra Tech is obtaining, and will obtain in the future, prior written approval from USAID Contracting Officer.	Since this occurrence during year 1 of the project, Tetra Tech has taken the steps necessary to ensure no employee charges to the contract without receiving prior written approval from USAID. To date, 48 expat staff have worked on the AESP project and since July 21, 2010 not a single instance of an employee charging to the project without prior approval has occurred.
2	Log book for generators fuel consumption was not maintained.	Although a log book is not required by the AIDAR or FAR or by the Prime Contract's or Task Order's terms and conditions, Tetra Tech will maintain a formal log book if directed by the Contracting Officer. If needed, Tetra Tech will request prior approval from the Contracting Officer to incur additional cost and fee for implementation.	On AESP, our routine management controls and targeted record keeping results in an accurate accounting of diesel fuel cost without incurring the cost of maintaining a logbook of generator diesel fuel consumption.
3	Time In & Time Out record of subcontractors' labor was not maintained	Tetra Tech will maintain a record of Time In and Time Out of subcontractor labor hours in compliance with the direction of the Contracting Officer. If needed, Tetra Tech will request prior approval from the Contracting Officer to incur additional cost and fee for implementation.	Tetra Tech's time keeping policies are in accordance with commonly used practices in similar organizations; is in compliance with the US Defense Contract Audit Agency (DCAA); and subcontractors' employees pay is set according to a daily pay rate rather than hourly.
4	Daily time keeping record of subcontractors' employees were not approved by the Chief of Party	Tetra Tech will maintain Chief of Party approved daily time keeping records of subcontractor employees in compliance with the direction of the Contracting Officer. If needed, Tetra Tech will request prior approval from the Contracting Officer to incur additional cost and fee for implementation.	As described above, Tetra Tech and its subcontractors do comply with the subcontract clause 3.5 of Part 3 of the subcontract between Tetra Tech and its subcontractors. The Chief of Party will continue to review and approve all subcontractor invoices in the Kabul office that contain costs incurred from subcontractor employee timesheets.

Number	Finding	Tt Response	Action
5	Performance reports were not attached/prepared for the contracts of more than US \$30,000	Tetra Tech will complete performance reports on subcontracts of more than \$30,000 in compliance with the direction of the Contracting Officer. If needed, Tetra Tech will request prior approval from the Contracting Officer to incur additional cost and fee for implementation.	Tetra Tech has completed Performance Reports on subcontracts of more than \$30,000 where there is no other separate quality assurance / quality control process for A-E services deliverables.
6	Invoices were not approved by the Chief of Party	Tetra Tech will have subcontractor invoices approved by the Chief of Party in compliance with the requirements of the Federal Acquisition Regulations, AIDARs, Prime Contract, Task Order, and direction of the Contracting Officer.	
7	Delivery receipts for the vehicles purchased were not prepared / attached	Tetra Tech will provide delivery receipts for vehicles purchased in compliance with the requirements of the Federal Acquisition Regulations, AIDARs, Prime Contract, Task Order, and direction of the Contracting Officer.	
8	Sound commercial practices including competition not used for the selection and evaluation of subcontractors	Tetra Tech will continue to follow sound commercial practices in the selection and award of subcontractors in compliance with the requirements of the Federal Acquisition Regulations, AIDARs, Prime Contract, Task Order, and direction of the Contracting Officer. Tetra Tech will request that the Contracting Officer place written Consent to Subcontract statements and list our named teaming partners / subcontractors in the text of the Task Orders issued by USAID.	
9	Excluded Parties List System (EPLS) review conducted after award of contract to Subcontractors	Tetra Tech will ensure that EPLS review will be performed in compliance with the requirements of the Federal Acquisition Regulations, AIDARs, Prime Contract, Task Order, and direction of the Contracting Officer.	Additional training of the AESP project office CCN Procurement staff in procurement and contract compliance practices has been implemented, along with enhanced periodic quality assurance reviews of all procurement and subcontract management files. Such training will be standard operating practice on all future USAID task orders.
	Information about subcontracts and	Tetra Tech will ensure that all FSRS information is reported in compliance with the requirements of	Tetra Tech has been in discussions with the AESP COR and CO regarding the inputting of the FFATA

Number	Finding	Tt Response	Action
10	sub awards greater than US\$25,000 were not available publicly on the Federal Sub award Reporting System (FSRS)	the Federal Acquisition Regulations, AIDARs, Prime Contract, Task Order, and direction of the Contracting Officer once USAID has enabled Task Order 01, and any future Task Orders issued, in FFATA.	data for Task Order 01. As of the date of this submission to USAID, USAID has not enabled Task Order 01 in the FFATA reporting system and, as a result, Tetra Tech cannot enter any data required by FFATA even if FFATA subsequently had been added to the Contract by formal amendment.
11	Specially Designated National (SDN) list review was not conducted	Tetra Tech will ensure that all SDN list reviews will be conducted in compliance with the requirements of the Federal Acquisition Regulations, AIDARs, Prime Contract, Task Order, and direction of the Contracting Officer.	Additional training of the AESP project office CCN Procurement staff in procurement and contract compliance practices has been implemented, along with enhanced periodic quality assurance reviews of all procurement and subcontract management files. Such training will be standard operating practice on all future USAID task orders.

The MOF audit for the AITR FYs 1390 and 1391 (2011 and 2012) started during the first quarter of FY2014. There were no audit findings in the report after all financial declarations were fully assessed. AESP successfully complied with Afghan Income Tax law.

In the fourth quarter, Tetra Tech received notice of a new USAID Financial Audit. A kick-off meeting was held and collection of requested documents began.

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 their manufacturing facility assessments concrete poles, meter box production and transformer rewinding facility, and the Tarakhil Thermal Power Plant amendments. In addition, Tt AESP provided assistance to, and coordination with DABS, commercial contractors, and GFA Consulting Limited and Phoenix.

2.2 LINKS WITH OTHER DONOR AGENCIES

Tt AESP continues to take direction from USAID coordinating with other donor agencies. AESP attended Working Power Coordination Meetings with USAID, World Bank, Asian Development Bank, and Advanced Engineering Associates International, Inc. to plan and support future power coordination within Afghanistan.

2.3 LINKS WITH OTHER USAID PROJECTS

No significant events or activities to report during this fiscal year.

3.0 MANAGEMENT AND ADMINISTRATIVE ISSUES

3.1 PERSONNEL

Tetra Tech had a few noteworthy personnel changes during the fiscal year. Our Deputy Chief of Party (DCOP) received his special immigration visa (SIV) and departed for the United States. After his exit, Tetra Tech promoted the local national Technical Services Manager to DCOP demonstrating our commitment to USAID FORWARD.

The Reachback Technical Support Manager position was vacated and backfilled. The expatriate Contracts Manager position was filled by moving the Administrative Manager to this position. The expatriate Transportation Specialist position was vacated and refilled. The expatriate Technical Support Manager position was vacated and later refilled.

Tetra Tech's local national Technical Support Manager received a Fulbright Scholarship and departed for the United States to study at Colorado State University. Our Senior Administrative Assistant received her SIV and departed for the United States. This position was backfilled with two mid-level administrative assistants. Lastly, our Facilities Manager position was vacated and filled by promoting our Buyer.

Gender Equality plays an important role in staff planning on AESP. Through WO-LT-0042 Afghan Women Internship Program, Tt AESP selects four interns to support AESP each academic year.

During the year, Tetra Tech maintained a male to female ratio of nearly 9:5. Tetra Tech 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

Since ongoing design activities continued in fiscal year 2014, no significant adaptations of the activity occurred.

3.3 MODIFICATIONS AND AMENDMENTS

Modification 21 was received on February 11, 2014. The purpose of this modification was to:

1. Rescind the Approval of Contractor Purchasing System for TO# EDH-I-00-08-00027-00 of the Global Architect-Engineer Infrastructure Services (A&E) IQC; and
2. Incorporate the FAR clause "52.244-2 Subcontracts" in section I of the Task Order.

Modification 22 was received on April 14, 2014. The purpose of the modification was to:

1. Rescind the budget in section B.3 of TO# EDH-I-01-08-00027-00 under the Global Architect – Engineer Infrastructure (A&E) IQC and replace with the following:
“(a) The total ceiling for this award is \$ [REDACTED]. Of this amount, [REDACTED] is for payment as the fixed fee in accordance with FAR 52.216-8.”

Modification 23 was received on September 24, 2014. The purpose of the modification was to:

1. Increase the ceiling of the Task Order by [REDACTED] and
2. Increase the total obligation by [REDACTED] to fully fund the Task Order.

4.0 SUCCESS STORIES

During the year, Tt AESP provided training opportunities for our local national staff through the U.S. based Red Vector series of online courses. These courses are designed to provide specialized training in technical fields ranging from project management, to civil and electrical engineering, to safety. The coursework is recognized by U.S. boards as meeting the requirements for Continuing Education Units

(CEUs) and is typically used by U.S. Professionals to maintain their licensure. A total of 14 Tetra Tech local national staff registered and completed courses in this program.

A second educational opportunity provided by Tetra Tech AESP to the local national staff is a curriculum offered by the Project Management Institute (PMI). This series of courses is designed to provide advanced project management skills, with the successful student certified as a “PMP” (Project Management Professional). A total of 5 Tetra Tech local national staff took advantage of this program.

USAID/Afghanistan

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