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USAID/ENERGY POLICY PROGRAM MONTHLY PROGRESS REPORT October 2014



November 2014

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USAID/ENERGY POLICY PROGRAM

MONTHLY PROGRESS REPORT

October 2014

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Cover Photos: Power Transformer at DI Khan

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ACRONYMS

AEAI	Advanced Engineering Associates International, Inc.
CPGCL	Central Power Generation Company Ltd.
CPPA	Central Power Purchasing Authority
DGPC	Directorate General Petroleum Concessions
DISCO	Distribution Company
EMMP	Environmental Mitigation and Monitoring Plan
EPP	Energy Policy Program
FARA	Fixed Amount Reimbursable Agreement
GENCO	Generation Company
GHCL	GENCO Holding Company Limited
GOP	Government of Pakistan
GTPS	Guddu Thermal Power Station
ISGS	Interstate Gas System
JTPS	Jamshoro Thermal Power Station
KPK	Khyber Pakhtunkhwa
kV	Kilovolts, 1000 volts, unit of electric potential (voltage)
LNG	Liquefied Natural Gas
LSA	LNG Services Agreement
MOF	Ministry of Finance
MPNR	Ministry of Petroleum and Natural Resources
MTPS	Muzaffargarh Thermal Power Station
MW	Megawatt, unit of electrical power, 1 million watts,
MWP	Ministry of Water and Power
NEPRA	National Electric Power Regulatory Authority
NPCC	National Power Control Center
NTDC	National Transmission and Dispatch Company
O & M	Operations and Maintenance
PESCO	Peshawar Electricity Supply Company
PIL	Project Implementation Letter
PO	Purchase Order
PowerSIM	Power Sector Integrated Model
PPA	Power Purchase Agreement
PQA	Port Qasim Authority
PTF	Power Transformer
RFP	Request for Proposal
SCADA	Supervisory Control and Data Acquisition
SMS	Secured Metering System
SOW	Scope of Work
SSGC	Sui Southern Gas Company
USAID	United States Agency for International Development
WAPDA	Water and Power Development Authority

MONTHLY HIGHLIGHTS

The Energy Policy Program (EPP) achieved the following results during the month of October 2014.

Table I: Monthly Highlights

Component 1

- EPP provided support to USAID on Guddu's additional funding request of US\$ 9.64 million for rehabilitation of GT-9; which will add another 150 MW.
- EPP submitted Environmental Monitoring and Audit report to USAID. Environmental monitoring is carried out to ensure that the rehab work under FARA is in compliance with the GOP and USG regulations as recommended in the approved EMMP.
- EPP met WAPDA to discuss their recent request on extending the completion date and replacing the spare equipment with much needed items under Tarbela Phase I. The remaining equipment's will enhance the sustainability of 128 MW already achieved, and life of the power plant.
- Discussed with WAPDA about the progress of condition precedents mentioned under Tarbela Phase II agreement, which is critical before any disbursement and must be met by November 2014.

Component 2

- Work on Milestone-4 has been completed. Draft report is being finalized by LMKR/NuTech.
- Advisory work on day to day issues of DGPC continued. Additional cases referred by DGPC are under examination.
- A preliminary meeting between DGPC officials, EPP, and PTS to review the Model Onshore
- EPP has provided its response to PTS legal consultant on PPEPCA comments on the Offshore Model Supplemental Agreement.
- Proposal for re-appropriation of PTS budget (for new RFP for Shale Gas policy) and planned PTS program has been submitted to USAID.
- A proposal for hiring of two professionals for DGPC in the Implementation Unit has been submitted to USAID.
- Revised report on advisory support (Work Area-3) has been submitted by PTS.
- PTS invoice for September 2014 has been processed for payment.

Component 3

- USAID met with EPP to review cost estimates for the Kaitu Weir Project and to identify issues for discussion with WAPDA Project Team in meeting scheduled for early next month.

Component 4

- Completed technical audits of all grid stations. Final reports pertaining to 64 of 84 grid stations have been compiled (76% completed).
- A 20/26MVA power transformer was successfully replaced and commissioned by EPP team at Chakdara 132 kV Grid Station. This replacement makes 26MVA of transformation capacity reliable in PESCO's network.
- Ghazi Road 220kV grid station was audited this week, 33 of 48 grid stations have been completed (69%). Final reports pertaining to 27 of 48 grid stations have been compiled (56% completed). The number has increased as 7 new grid stations have been added which were not a part of the original scope.

PROGRESS IN NUMBERS

Indicator	Unit	LOP Target	Achieved in October FY2014	Total Achieved as of October FY 2014	LOP % Achieved as of October FY2014
I.a: GWh of energy sold	GWh	7,880	0	8,225	104%
I.1.a: Number of beneficiaries with improved energy services due to United States Government assistance	Individuals	13,624,226	0	14,099,749	103%
I.1.b: GWh of energy availability	GWh	7,880	0	8,225	104%
I.1.c: MW available to meet power sector demand as a result of USG assistance	MW	1,303	0	1,381.6	106%
I.1.1.a: MW of electrical power added or saved as a result of USG improvements	MW	875	0	1,019	116%
I.1.1.b: Efficiency of thermal power plant tests completed	No.	3	0	2	67%
I.1.1.c: Number of USG supported installations and operations and maintenance improvements	No.	181	1	107	59%
I.1.1.d: Number of transmission bottlenecks resolved	No.	121	0	84	69%
I.1.4.a: Public and private funds leveraged by the USG for energy infrastructure projects	U.S. \$	193.5 million	0	38.5 million	19% ¹
I.2.1.a: Number of key policies and regulations in various stages	No.	12	0	11	91%
I.2.2.a: Number of policies following international best practices	No.	6	0	2	33%
I.2.2.b: Number of board recommendations following international best practices	No.	4	0	0	0%
I.2.3.a: Number of best practice-driven systems created, improved, and implemented	No.	10	0	5	50%
I.2.4.b: Number of public forums resulting from USG assistance in which government officials and citizens interact	No.	12	0	5	42%
I.a: GWh of energy sold	GWh	7,880	0	8,225	104%

Component-Wise Summary

¹ EPP recently changed the I.1.4.a Life of Program target from USD \$48.5 million to \$193.5 million as per recommendation of MSI's data quality assessment. This consists of Gomal Zam funds (\$33.5 million), Mangla funds (\$15 million), and LNG fund (\$145 million) which consists of the 6 month charter for tugboats (\$5 million), FSRU charter (\$20 million), and infrastructure of jetty and pipelines (\$120 million).

Indicator	Unit	Component	LOP Target	Achieved in October FY2014	Total Achieved as of October FY 2014	LOP % Achieved as of October FY2014
I.1.a: Number of beneficiaries with improved energy services due to United States Government assistance	Individuals	Total	13,624,226	0	14,099,749	102%
		I-Generation	7,993,106	0	9,382,406	117%
		IV-Transmission Throughput Capacity	5,477,544	0	4,640,555	85%
		IV – Transmission Added/Saved	153,576	0	76,788	50%
I.1.b: GWh of energy availability	GWh	I & IV	7880	0	8,225	103%
		I-Generation	4,796	0	5,642.29	117%
		IV-Transmission Throughput Capacity	2999.42	0	2541.10	85%
		IV – Transmission Added/Saved	84	0	42	50%
I.1.c: MW available to meet power sector demand as a result of USG assistance	MW	I & IV	1,303	0	1,381.60	104%
		I-Generation	863	0	1,013	117%
		IV-Transmission Throughput Capacity	428	0	362.6	85%
		IV – Transmission Added/Saved	12	0	6	50%
I.1.1a: MW of electrical power added or saved as a result of USG improvements	MW	I & IV	875	0	1,019	116%
		I-Generation	863	0	1,013	117%
		IV – Transmission Added/Saved	12	0	6	50%

PLANNED ACTIVITIES

EPP will focus on the following high-impact activities in November 2014.

Table 2: Planned Activities

- Support to USAID on Guddu's request for additional funding of \$9.64 Million for rehabilitation of GT-9; which will add 150 MW to the national grid.
- Inauguration ceremony of Satpara Multipurpose dam project
- Signing of the PIL for the Phase-II of the Tarbela Repair and Maintenance Project.
- Inspection of equipment under PIL Item#25: Repair of winding and stator of Generators and testing of units 5&6 at Muzaffargarh thermal power station.
- Environmental Monitoring & Audit visit to Mangla Power station to ensure that the work is in compliance with the GOP and USG regulations as recommended in the approved EMMP.

- Assistance to MWP in preparing for stakeholder meeting to finalize PPA for Jamshoro.
- EPP will continue working NTDC and liaison with MWP in preparing Performance Contract.
- Power SIM training of Section Officers.
- Continued application of Power SIM at Planning Commission through 11th Five Year Plan.
- Assistance to Member Energy on a variety of policy areas.
- The assistance will be provided to examine and formulate views on the policy proposals to be submitted by the energy sector ministries / entities to Ministry of Finance.
- Monitoring of Power Sector Circular Debt.
- **LNG:** Finalization of MSPA, comments on Qatargas SPA and specific activities to secure commercially viable LNG cargoes by the commissioning date of the Fast Track LNG terminal; support to GOP in G2G negotiations for LNG procurement; support to PQA for monitoring construction of EETPL LNG Terminal and for specific LNG services; capacity building of GOP stakeholders; decision on conducting the full bridge mission simulation study for PQA and training of PQA pilots/tug masters for maneuvering of LNGCs; continuation of provision of legal support to SSGC for LSA open items.
- **Shale Gas:** Completion of Milestone-4 and continuation of work on Component-2. Initiation of additional testing of samples subject to USAID approval.

- Continue advice and assistance to further the Kaitu Weir (and affiliated structures) project.
- Provide advice and assistance on any other new project that USAID wants to consider for review and/or asks EPP to exercise Due Diligence and make recommendations.

- Repair of damaged Transmission Line Towers (132kV & 66kV) in KPK
- Installation and commissioning of 132/66kV power transformer at Chakdara GS
- Handover ceremony of Protection and Instrumentation (P&I) vans and Live Line Tools and Plants
- Technical audit of NTDC grid stations
- Installation of Displays at PESCO, GEPCO and FESCO.

- NTDC Grid Operations Exchange post-training brief and action plan review
- EPP will deliver the second of the three hydro O&M training course in November 2014.
- EPP will conduct follow up interviews with SAN trainees to know their learning outcomes.
- EPP will seek nominations for LNG Business and Management Intensive Training.
- EPP will conduct one-on-one interviews with NTDC's nominated participants for the "Commercial Operations Exchange" visit to the United States

PROGRAM OVERVIEW

EPP is a multi-year, USAID-funded initiative to increase power generation, improve transmission capacity and reliability. EPP works with selected energy enterprises to assist the Government of Pakistan's sector reform efforts. The program supports the joint goals of the United States Government (USG) and the Government of Pakistan (GoP) in reforming the power sector, and is designed to address Pakistan's chronic electricity shortage.

While there is a continued and ongoing focus on due diligence and successful implementation of the G2G effort, EPP has begun integrating work on technical upgrades, policy reform implementation, and transmission-related activities. All of these efforts represent a comprehensive approach to help Pakistan expand its indigenous production capacity, eliminate the need for subsidies, and mitigate pressures contributing to the country's current energy crisis. At the conclusion of this important program, EPP will have both contributed substantially towards immediate energy shortages and helped the country build longer-term energy sufficiency.



Figure 1: EPP Phases

EPP encompasses interrelated activities and targeted interventions that meet the objectives of all four components of the program:

Component 1 - Monitoring & support of Project Implementation: EPP proactively advises and supports USAID and counterparts in the monitoring, implementation, and compliance of Fixed Amount Reimbursement Agreements (FARA) with the GoP. This includes monitoring and supporting timely counterpart compliance with all of the terms and conditions of FARAs, and inspection and certification of deliverables.² Specifically, EPP provides monitoring and implementation support for seven signature energy projects: four repair and maintenance projects (3 GENCOs and Tarbela); two multipurpose dam completion projects (Gomal Zam and Satpara); and one dam rehabilitation project (Mangla).

Component 2 – Advice and Support of Energy Sector Policy Reform: EPP actively supports energy sector reform by undertaking activities that are requested by one or more GoP entities and by the direct secondment of staff to work in the offices of the requesting entity as advisors and specialized support staff.³ In achieving the objectives of this component, EPP supports generation and transmission-related studies and policy reform activities assigned by USAID with the support of the GoP.

Component 3 – New Projects, Planning and Development: Based on frequently changing priorities and schedules of USAID and USG entities, EPP undertakes due diligence of projects and activities that are candidates for USG support.⁴ Specifically, EPP conducts and prepares due diligence reports on new projects under consideration for USG support in order to provide detailed

² C.4.2, Component One, pg. 8 of 46, Contract No: AID-EPP-I-00-03-00004

³ C.4.3, Component Two, pg. 11 of 46, Contract No: AID-EPP-I-00-03-00004

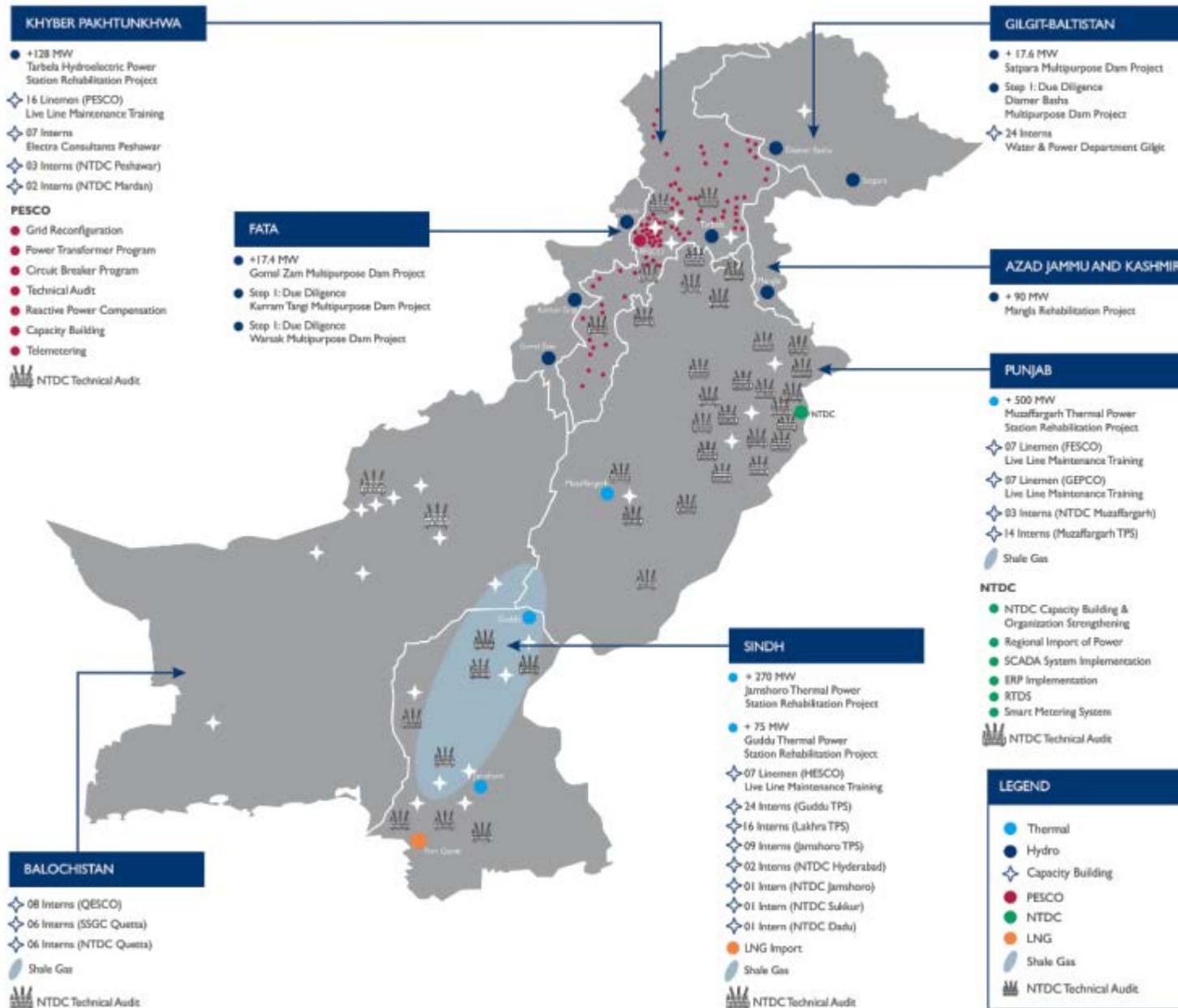
⁴ C.4.4, Component Three, pg. 12 of 46, Contract No: AID-EPP-I-00-03-00004

information, reduce USG risk, and set a basis for creating Project Implementation Agreements for the selected projects.

Component 4 – New Activities: As a result of Modification Number 2 to the EPP Task Order Award, EPP supports the following efforts: a turnaround power distribution company (DISCO); identification of new, high-impact opportunities that promote continued support for governance; Live Line training for transmission linemen; technical assistance to the Ministry of Petroleum and Natural Resources (MPNR) (USAID pre-approved activities, including but not limited to, Liquefied Natural Gas (LNG), oil and gas (including shale gas), and advisory services to increasing natural gas supplies for power generation); targeted assistance to the National Transmission and Dispatch Company (NTDC) and the Natural Power Control Center (NPCC) to mitigate unscheduled shortages; help generation companies (GENCOs) to improve baseline efficiency measurements and improved operations and maintenance; and deliver technical assistance efforts in support of GoP and USAID activities that promote capacity building, increased public awareness, and targeted advisory services⁵. EPP's capacity building program facilitates sustainability by enhancing local capability in critical areas.

⁵ C.4.5.1, Component Four, pgs. 3-9, , Amendment/Modification No. 2 of Contract No: AID-EPP-I-00-03-00004

Figure 2: Map of EPP Activity Areas



COMPONENT I: PROJECT MONITORING & IMPLEMENTATION

EPP provides monitoring and implementation support for the seven G2G Signature Energy Projects identified in the Task Order Award. These projects include rehabilitation of three Thermal power plants (Muzaffargarh, Guddu and Jamshoro), two hydropower plant (Tarbela and Mangla), and construction of two new multipurpose dams (Gomal Zam Dam and Satpara Dam). Total USG funding for these projects is U.S. \$291.7 Million (per the revised agreements) that will result in an estimated gain of 953 MW for Pakistan’s national grid.

As of October 2014, U.S. \$147.77 Million has been disbursed to GOP implementing partners, and 1013 MW have been added to Pakistan’s national grid. Results achieved through the successful monitoring and implementation of G2G projects are illustrated in the table below:

Table 3: Results Achieved through G2G Projects

Projects	USG Funding (US\$ Million)	Paid (US\$ Million)	Completion Date	MW Gains/Benefits	
				Target	Achieved (Aug 31, 2014)
Tarbela	\$16.50	\$13.95	12/31/14	128.0 MW	128.0 MW
Jamshoro	\$19.32	\$17.34	12/31/14	150.0 MW	270.0 MW
Guddu	\$19.12	\$17.34	12/31/14	75.0 MW	80.0 MW
Muzaffargarh	\$15.77	\$15.14	12/31/14	475.0 MW	500.0 MW
Gomal Zam	\$45.00	\$45.00	Completed	17.4 MW	17.4 MW
Satpara	\$26.00	\$26.00	Completed	17.6 MW	17.6 MW
Mangla	\$150.00	\$13.00	12/31/2017	90 MW	In Progress
Total	\$291.71	\$147.77		953 MW	1013 MW

During this reporting period, the cumulative number of people who have directly benefited from EPP’s efforts stands at 14.09 million or 7.9% of population.

As of this reporting period, EPP’s efforts have improved the financial performance of energy sector entities by US\$ 593 Million. This represents approximately 6.8% of 2012 circular debt.

80 megawatt gains were achieved during this reporting period as a result of Component I activities, EPP’s efforts in support of U.S. Government energy infrastructure projects have resulted in 1013 MW restored or added to Pakistan’s grid.

Rehabilitation of Tarbela Hydropower Plant

The rehabilitation work (Phase I) to date has resulted in restoration of 128 MW at Tarbela hydropower plant. Replacement of the generator windings at units 1, 3 and 4, and the installation of relief valve seals, guides and pumps are now complete. Digital governors installed and commissioned at units 3, 4, 5, 6, 7 and 9. Further, shutdown for the installations of the remaining four digital governors will take place during the “lean flow period” in November this year. The digital governors will aid in the smooth operation of the power station.

The remaining four activities include (1) installation and commissioning of digital governors at units 1, 2, 8 & 10 (2) up-gradation of SCADA system (3) one dewatering pump and (4) 1/3rd spares winding. The procurement of these items was delayed due to settlement in terms and conditions with the bidders, availability of foreign Experts for supervision at Tarbela due to security concerns, and availability of shutdowns due to high electricity demand in summer season. The replacement of these items is important for the reliability and sustainability of the power station. Therefore WAPDA requested USAID to extend the Activity Completion Date for one year until December 31, 2015, and also to replace the 1/3rd spare winding with more essential equipment, Rotor Poles because WAPDA already has one spare winding available in their inventory, which is left unutilized. These Rotor Poles are critical at this stage to sustain the 128 MW gains achieved through Tarbela rehabilitation. EPP met WAPDA to discuss their request on extension of the completion date and replacement of 1/3rd spare winding with much needed item, Rotor poles and briefed USAID on it. Now the case is with USAID and decision is awaited.

USAID is also funding \$25 Million for Tarbela Repair and Maintenance Phase II Project out of which \$10 Million is sub-obligated under an Activity Agreement. This funding will aid the replacement of additional equipment that will add to the reliability and sustainability, and enhance the life of Tarbela hydro power plant by at least 15-20 years. An additional 20 megawatts about 60 GWh of energy per annum and oil savings of \$12 million per annum is also expected with this replacement.

On Phase II of Tarbela Repair and Maintenance project, EPP met WAPDA and discussed the progress of the procurements to provide payment plan to USAID. EPP also follow up with WAPDA on the conditions precedents set forth in the signed Activity Agreement as these are necessary before any disbursement and must be met by November 2014. The phase II project will be implemented after the signing of a separate project implementation letter (PIL).

Of the \$16.5 million funding amount committed for Tarbela (phase I), the total disbursement as of October 2014 has reached to \$13.95 million.

Gomal Zam Multipurpose Dam Project (Project Completed)

With U.S. \$45 Million in funding committed, USAID supported WAPDA in the completion of the main dam, powerhouse, and switchyard and transmission line at Gomal Zam.

The dam has the capacity to generate 17.4 MW of electricity, and is capable of storing 1.14 million acre feet of water that will control flooding and irrigate 191,000 acres of land. The power generated by the dam is enough to meet the electricity consumption needs of 161,000 individuals. The project is now complete, and was inaugurated by U.S. Ambassador Olson in September 2013.



Figure 3: Gomal Zam Multipurpose Dam Project

Satpara Multipurpose Dam Project (Project Completed)

EPP successfully achieved the Satpara Multipurpose Dam project objectives ahead of the anticipated completion date of December 31, 2013. The dam, four powerhouses, and irrigation canals are complete. The entire U.S. \$26 Million in committed funding has been disbursed to the GOP.

The dam has added 17.6 MW to the Skardu grid, and is capable of storing 0.09 million acre feet of water that will control flooding and irrigate 15,500 acres of land. The power generated by the dam is enough to meet the electricity consumption needs of 163,000 individuals.

Severe weather conditions created challenges for work on this project, but EPP completed the project ahead of schedule. The inauguration of the dam has been delayed due to poor weather.



Figure 4: Satpara Multipurpose Dam Project

Muzaffargarh Thermal Power Station Rehabilitation Project

USAID funded rehabilitation at MTPS has restored 500 MW to the national grid which is sufficient to supply electricity to 4.63 million individuals. The restored 500 MW exceeds the project objective of 475 MW given in the Agreement.

As of to-date about 91% of the equipment has been procured and installed, while procurement of the remaining items is underway. The management of Muzaffargarh power plant is committed to complete the outstanding works therefore they requested USAID to extend the



Figure 5: Muzaffargarh Thermal Power Station

project completion date to June 30, 2015 as installation and testing of the remaining items will go beyond December 2014 and require another six months. In addition, Muzaffargarh Thermal Power Station has requested to allocate PIL amount for item 5: Modification of Excitation system to the much needed item 33: Distributed Control System (DCS) for Turbine Governing System and Boiler Turbine Auto Regulation System. The request is made since the bid price received by Muzaffargarh power plant for item 33 is much higher than the allocated amount in the PIL, due to price escalation in the market as the rehabilitation started back in 2010. The item 33 is critical and is essentially required for the reliability and sustainability, however due to financial constraints the procurement of the item is delayed. Therefore the plant management has requested to adjust the amount of item 5 in item 33, so that the procurement and installation of the critical item 33 could be completed by June 30, 2015. EPP provided support to Muzaffargarh in developing schedule for the remaining items. The amendment request of Muzaffargarh is with USAID and decision is awaited.

In order to ensure that the rehab work is in compliance with the GOP and USG regulations as recommended in the approved EMMP, EPP environmental expert conducted a visit to the power plant and subsequently submitted an environmental monitoring and audit report to USAID.

As of October 2014, out of the obligated amount of \$15.77 million, the total amount disbursed to the GOP stands at \$15.14 million for MTPS.

Jamshoro Thermal Power Station Rehabilitation Project

USAID funded rehabilitation at JTSP has resulted in the restoration of 270 MW of power generation capacity, which exceeds the project objective of 150 MW given in the Agreement. These 270 MW are sufficient to supply electricity to 2.5 million individuals. Major equipment has been installed and rehabilitated at MTPS, and procurement of the remaining equipment is in process.

As of to-date about 92% of the equipment has been procured and installed, while procurement of the remaining two items (6 & 17) is underway. The management of Jamshoro power plant is committed to complete the outstanding works. The delays are generally the result of complex negotiations with vendors. Therefore, Jamshoro requested USAID to extend the activity completion date to June 30, 2015 as installation and testing of these items will go beyond December 2014 and require another six months. The completion of the remaining two items is critical for the reliability and sustainability of the power plant operations. EPP provided support to Jamshoro in developing schedule for the remaining items. The amendment request of Jamshoro is with USAID and decision is awaited.

EPP certified claim of \$958,500 against PIL item#11: Purchasing of fuel oil additives to prevent slag formation and cooling water treatment chemicals to prevent scale buildup for Units 1, 2, 3, & 4, which is disbursed to JPCL account.

As of October 2014, out of the obligated amount of \$19.32 Million, the total amount disbursed to the GOP stands at \$17.34 million for JTSP.

Rehabilitation of Guddu Thermal Power Station

USAID funded rehabilitation at GTPS has resulted in the restoration of 80 MW of power generation capacity, which exceeds the project objective of 75 MW given in the Agreement. These 80 MW are sufficient to supply electricity to 740,960 individuals.

On 24th October, Deputy Director “Mr. Tim Moore” and Senior Energy Engineering Specialist “Mr. Carlos Guerra” from USAID energy office visited the Guddu power station to review the operation of USAID funded rehabilitated turbines (GT-7, GT-8) and to discuss the Guddu additional funding request of \$9.64 Million for rehabilitation of another turbine GT-9, which will add 150 MW to the national grid.



Figure 6: Guddu Thermal Power Station

In order to ensure that the rehab work is in compliance with the GOP and USG regulations as recommended in the approved EMMP, EPP environmental expert conducted a visit to the power plant and subsequently submitted an environmental monitoring and audit report to USAID.

As of October 2014, out of the obligated amount of \$19.12 Million, the total amount disbursed to the GOP stands at \$17.34 million for GTPS.

Mangla Dam Rehabilitation Project

USAID is providing \$150 million to GOP for the Mangla Dam Rehabilitation Project, out of which \$72 Million was sub-obligated under an Activity Agreement signed on August 15, 2013. USAID will upgrade units 5 and 6 as the two units are in worst state of degraded condition; USAID will also fund the balance of plant that will improve efficiency and productive life of all 10 units of the Mangla Power Station. USAID is anticipating an addition of 90 MW of power generating capacity through the rehabilitation work.



Figure 7: Generators of Mangla Power Station

In October, EPP met WAPDA and discussed the progress of the procurements under Mangla rehabilitation to expedite the progress. WAPDA completed the evaluation report for the procurement of major equipment's (Turbine and Generators for Unit 5 & 6) and contract is expected to be awarded by Nov 2014 model testing to complete by Sep 2015, that will trigger disbursement of \$7.614 million. While for procuring the transformers, bid documents are under preparation and expected to be issued by end Nov 2014 and Completion of its design is expected by June 2015, which will trigger another \$1.835 million. For Procurement of Crane, WAPDA approached original equipment manufacturer (OEM), however due to security concerns; the OEM is reluctant to work in Pakistan. Therefore WAPDA decided to award contract on ICB basis. Its bid documents are under preparation, and expected to be issued by end-November. Procurement of other equipment's (Inlet Valves & Seals) is also in process.

As per Activity Agreement, the project completion date is December 31, 2017 and the total amount disbursed to GOP as of October 2014 is \$13 million.

GENCOS PERFORMANCE EFFICIENCY IMPROVEMENT PROGRAM

Having achieved substantial and highly visible results through the replacement of equipment that resulted in power generation capacity and efficiency improvements, EPP is now focused on improving the commercial operations of the GENCOs. In this regard, EPP is providing support to the GENCOs to conduct NEPRA-compliant Heat Rate tests in order to obtain a revised tariff from NEPRA which will reflect the actual costs incurred by GENCOs in producing electricity and increase annual revenues through fuel saving of \$70 million per annum.

In October, EPP continued working level discussions with JPCL regarding USAID support for improving the commercial and technical performance of GENCOs. Performance Efficiency Improvement Plan is being drafted in consultation with JPCL for Jamshoro Thermal power station (JTPS) so that the gains achieved at JTPS be sustained and also to improve the plant's operating life.

Procurement of Flow Meters

Procurement of the flow meters for the three GENCOs is complete. These meters were critical to ensure that accurate instruments are in place prior to NEPRA compliant heat rate tests.

Heat Rate and Dependable Capacity Testing

Heat rate tests completed at Muzaffargarh and Jamshoro thermal power plants. Annual fuel savings approx. \$70 million per year. EPP supported Jamshoro in filing of the tariff petition and coordinating with Jamshoro on the tariff determined by NEPRA.

ISSUES/CONSTRAINTS AND STEPS TAKEN TO RESOLVE THEM

- Procurement of remaining equipment's at Jamshoro & Muzaffargarh Project. EPP facilitated Jamshoro & Muzaffargarh in developing schedule for the remaining items. The amendment request of Jamshoro & Muzaffargarh is with USAID and decision is awaited.
- Installation of punch list items at three rehabilitated turbines (GT-7, GT-8 & ST-5) of Guddu Power Station. Guddu requested NPCC for the shutdown in order to complete the punch list items.
- Procurement of remaining equipment's at Tarbela project. EPP provided support to USAID on WAPDA's request to extend the completion date and replacement of 1/3rd spare winding with much needed item, Rotor poles. The request is with USAID and decision is awaited.
- Procurement of equipment's at Mangla project. EPP met WAPDA to expedite the procurement.

ANTICIPATED ACTIVITIES FOR THE NEXT REPORTING PERIOD

- Support to USAID on Guddu's request for additional funding of \$9.64 Million for rehabilitation of GT-9; which will add 150 MW to the national grid.
- Inauguration ceremony of Satpara Multipurpose dam project
- Signing of the PIL for the Phase-II of the Tarbela Repair and Maintenance Project.
- Inspection of equipment under PIL Item#25: Repair of winding and stator of Generators and testing of units 5&6 at Muzaffargarh thermal power station.
- Environmental Monitoring & Audit visit to Mangla Power station to ensure that the work is in compliance with the GOP and USG regulations as recommended in the approved EMMP.

COMPONENT 2: POLICY AND REFORM

EPP supports energy sector reform through two basic mechanisms: the direct undertaking of specific activities requested by one or more GoP energy entities; and direct institutional support through secondment to work in the offices of the requesting energy sector entity as advisors and specialized support staff. In both cases, the respective request for support must be made to the COR and approved by USAID.

SUPPORT TO MINISTRY OF WATER AND POWER

During this reporting period, EPP continued to provide technical assistance to the GOP to support energy sector restructuring and reform, including more effective market policies, better targeting of subsidies, and capacity building of key institutions (policy makers, planners, regulators, facility managers, and project implementers). EPP's efforts are geared towards improved policy implementation that will help ensure greater efficiency and higher quality customer service, better sector and business management, increased political support for reforms, and eventually full cost recovery leading to sustainability. Proper implementation of these reforms will also provide a business environment that encourages public and private sector investment into the fuel and power supply networks, including cleaner energy technologies. Pricing reforms and the introduction of improved commercial practices in the power distribution sectors will support investment, increase self-financing for the sector to maintain and expand services (and reduce over-dependence on the GoP budget), and mitigate future growth in demand for more energy services.

Improved Policy Implementation

Pakistan is moving to allow private sector participation in transmission as part of the sector reform. EPP team will be providing continuing support to this policy as the GOP Committee responsible for the policy moves forward toward its finalization.

More Autonomous Energy Sector Entities

NTDC Performance Contract: The Ministry of Water and Power had requested EPP to initiate the process of developing a Performance Contract between GOP and NTDC with the objective of allowing NTDC adequate managerial and operational autonomy to ensure that the Company can achieve the agreed performance targets set forth. A letter has been sent to the MD, NTDC to provide the required assistance in this task. EPP is currently holding discussions with the relevant stakeholders to decide on the terms of reference for the Contract and met with the MD NTDC in this regard. There is interest from NTDC's side in moving ahead with the contracts, but also concern about the obligations of their counterpart (MWP).

NTDC Human Resource Management/Organizational Development Consultant: EPP is helping NTDC Board and Management develop an RFP for consulting services to bring NTDC human capital management in line with best practice in transmission and to move towards a commercial entity. EPP provided feedback for the initial draft and held meetings with the senior management of NTDC including Managing Director and GM, HR for further discussions on the RFP. NTDC has requested EPP to assist in development of their mission and vision statement.

NTDC Planning Department: Forecasting load is of critical importance from operations to planning. It is on this basis that generation plans are made and many stakeholders have voiced concern over the need to vet and improve the NTDC methodology. The team will be assisting NTDC in improving the load forecasting capabilities.

Business Transfer Agreement: EPP team held a meeting with PDP to discuss the concerns/issues on BTA between NTDC and CPPA and prepared and circulated the Minutes of the meeting. EPP viewpoint about CPPA being the financial clearing house has been documented in the MOMs which will address the main concerns regarding the risk management and cash flows. EPP is

waiting for the next version of the BTA and will be holding discussions with the MD and CFO at NTDC to finalize the document.

Improved Capacity of USAID-Supported Energy Public Sector Entities

During the month, EPP met with Joint Secretary, Policy (MWP) to discuss on-going and proposed activities with the Ministry. As per the request of MWP, the following activities were carried out:

Power Purchase Agreements: EPP is preparing for a stakeholder meeting to get feedback on the PPAs. The draft PPAs have been circulated to the stakeholders for their comments. JPCL has responded requesting further time to study the PPA. A final date will be given by the JS Policy and EPP is assisting the Ministry in preparing for the meeting.

Fuel Supply Agreement (FSA): EPP is currently working on developing a FSA between GENCOs and PSO. EPP team is working on the FSA template and will be interacting with PSO to gain feedback in development of the template. MWP has forwarded the request for a meeting between EPP and PSO to discuss the key elements for developing a new FSA template, as per MWP's guidance.

Power SIM Training: A meeting was held with Joint Secretary (Policy) to discuss future trainings/implementation of Power SIM. Two Section Officers have been nominated who will undergo further trainings particularly in application of Power SIM through Policy Briefs and other analysis. Trainings will be scheduled after assistance to Planning Commission on 11th Five-Year Plan is complete.

Open Access Policy: EPP held a meeting with the JS (Policy) to get feedback on development of an open access policy. The JS has agreed on moving forward with the Policy including development of pricing mechanisms for ancillary services.

SUPPORT TO MINISTRY OF FINANCE

- Assistance was provided to C.F. Wing, Ministry of Finance in preparation of their views/comments on the Term Sheet submitted by NTDC/MWP regarding the loan amounting to Rs.17 billion being obtained by NTDC from UBL. The loan will be utilized for construction of a transmission line for evacuation of electricity from a Hydel Generation Project.
- Corporate Finance Wing, Ministry of Finance was assisted for preparation of their views/comments on the report sent by Ministry of Water and Power on Energy Planning Working Group.
- Assistance was provided to C.F. Wing, Ministry of Finance in preparation of a reply to an assembly question regarding non-payment of energy sector dues by various government entities.
- Assistance was provided to C.F. Wing, Ministry of Finance in preparation of brief for Secretary Finance regarding Privatization of the shares of OGDCL.
- Assistance was provided to C.F. Wing, Ministry of Finance in preparation of their views/comments on the proposal submitted by All Pakistan Textile Mills Association (APTMA) regarding allocation of gas to textile sector on priority basis.
- Assistance was provided to C.F. Wing, Ministry of Finance in preparation of their views/comments on the summary for ECC submitted by Ministry of Water and Power regarding policy framework for On-Site Private Power Projects Based on Interim Gas Supply.

Impact

- Assistance provided by the AEAI Consultant helped Ministry of Finance to formulate their views/comments on various policy issues.

More Autonomous Energy Sector Entities

- Work continued on Diagnostic Analysis of the Regulatory Framework of NEPRA. The first three chapters of the draft report are being examined by the committee constituted by Ministry of Finance.

Issues Constraints

- No constraints were faced during the reporting period.

SUPPORT TO MINISTRY OF PETROLEUM & NATURAL RESOURCES

During the reporting period, EPP continued to provide technical assistance in support of the Ministry of Petroleum and Natural Resources (MPNR) and the GoP for USAID pre-approved activities, including but not limited to, Liquefied Natural Gas (LNG), oil and gas (including shale gas), and advisory services to increase natural gas supplies for power generation. These efforts continue to contribute to the successful formulation and implementation of the GP's LNG import program and institutional capacity building. They also promote sustainable improvements in Pakistan's upstream policy, rules, the regulatory framework, and exploration and production (E&P) programs to expedite increased domestic production to mitigate fuel supply issues in the power sector. Specific activities during this reporting period include:

LNG Imports

- The GOP delegation led by Minister MPNR held various meetings with potential G2G and other LNG suppliers in Malaysia and Singapore from 29-30 September, 2014. These meetings were arranged by FGE and the GOP delegation was assisted by FGE and WFW during the meetings.
- FGE continued with follow-up activities to the various meetings of the GOP delegation held with potential G2G and other LNG suppliers in Malaysia and Singapore. Federal Minister MPNR wrote a letter to Petronas expressing GoP's interest in exploring the possibility of procuring LNG from Petronas. Response from Petronas was received expressing interest developing a supplier/buyer relationship.
- Legal review and discussions among WFW, SSGC, EETPL, and their respective legal counsels to finalize the draft Option, Direct Agreements and other LSA open items continued throughout the month.
- Following USAID approval, umbrella Sub-Contract and Delivery Order for providing consulting services for LNG import terminals to PQA were signed with ECIL-Granada. Work has commenced at PQA by local port consultant (ECIL). Foreign consultants (Granada) have also commenced support from Houston home office by providing comments on Qatargas draft SPA. Task Order and NOCs for foreign consultants are in progress.
- A Skype call was held between ISGS, EPP and FGE regarding LNG procurement options and timelines.
- Draft Master LNG Sale and Purchase Agreement (MSPA), and comments on Qatargas SPA (developed in conjunction with WFW), and updated LNG Procurement Strategy were submitted by FGE.
- FGE and WFW consultants arrived in Islamabad to hold meetings with the GoP planned from Oct. 30 – Nov. 04 terms of agreements of Qatargas SPA, draft MSPA, and to finalize procurement options with timelines to secure LNG supplies by February/March 2015.
- WFW labor and non-labor invoices for the month of September, 2014 were processed for payment.
- FGE Labor invoice for the period July 24, 2014 to September 30, 2014 was processed for payment.

Shale Gas

- Work on Milestone-4 has been completed. Draft report is being finalized by LMKR/NuTech.
- LMKR has provided breakup of the estimate of added cost for inclusion of the additional fourteen confidential wells for resource assessment (proposed by DGPC) and LOE justification.
 - LMKR has been requested to provide additional information.
 - DGPC has been requested to indicate a firm timeframe for release of the confidential wells data. Response is awaited. A letter has been written by Addl. Secretary MPNR to the companies concerned to expedite the cores/logs data for these wells.
 - Based on the above information provided by LMKR and DGPC, a proposal would be submitted for USAID consideration before DGPC is asked to make a request to USAID for approval of additional cost and time required for this project.
- Response sent to DGPC (prepared in consultation with LMKR and NuTech) on observations raised by DGPC on Milestone-3 report.
- LMKR/KMR has begun the required data collection phase to initiate Component-2. A meeting was held with LMKR/KMR on October 21 to review Component-2 of the program and its way forward.

Upstream Oil and Gas

- Advisory work on day to day issues of DGPC continued. Additional cases referred by DGPC are under examination.
- Weekly progress review meetings were held with PTS throughout the month. Necessary directions were given for action on different cases.
- A summary on the proposed Flare Gas guidelines submitted to MPNR for further processing and approval of Council of Common Interest (CCI) is still under GOP consideration.
- PTS consultants' preliminary discussions with the stakeholders (in the context of review of E&P Rules and policies) were completed. Report on these discussions is awaited.
- A meeting was convened by DGPC on October 3, 2014 to review the Draft Onshore Supplemental Agreement. It was agreed to subject the Draft to review of the concerned DGPC officials and legal advisor. Another meeting was tentatively scheduled for October 31, 2014 to finalize the Agreement.
- PPEPCA comments on the Offshore Model Supplemental Agreement were received and discussed with PTS legal consultant. A meeting would be scheduled with the concerned DGPC officials to finalize the Agreement in early November.
- Proposal for re-appropriation of PTS budget (for new RFP for Shale Gas policy) and planned PTS program has been submitted to USAID.
- A proposal for hiring of two professionals for DGPC in the Implementation Unit has been submitted to USAID.
- Revised report on advisory support (Work Area-3) has been submitted by PTS.
- PTS invoices for August and September 2014 have been processed for payment.

SUPPORT TO MINISTRY OF PLANNING AND DEVELOPMENT

Policy Analysis and Planning: Power SIM has been adopted at the Planning Commission and is now becoming an accepted GOP tool. During the month, EPP continued its assistance to the Member Energy on the 11th Five Year Plan. The EPP team has been running scenarios for the Planning commission, as well as making several updates to the Power SIM based on the requests given by Member Energy. The accuracy of the model was tested by comparing results produced by Power SIM with actual data. EPP also assisted the Energy Wing in using Power SIM to prepare a presentation for the Minister of Planning and Development. Major tasks include:

- Using Power SIM to prepare the generation plan including a Base Case scenario (assumptions given by PC), along with official generation plans from GOP entities such as PPIB, AEDB.

- Working on a report for Member Energy that will essentially become part of the 11th Five Year Plan. The report consists of outputs from the Power SIM model which will be used for projections moving forward.
- Power balances, Circular debt and impact on tariffs will be included based on 3 scenarios (Base, Worst & Optimist) given by the Energy Wing.

A request has been given to the Member Energy to provide up-to-date for the year ending 2014 to update the model.

Technical Assistance: EPP advisor at Planning Commission, Energy Wing updated the File Movement Management Information System, Excel-based online tool, which was accepted for integration into the current online system. During the month, EPP collected data from all sections of the Energy Wing (such as Hydel, Power Fuel etc.) and uploaded the information into the software. A brief training program is being prepared to familiarize the Energy Wing officials with the MIS system. EPP advisor at PC also provided general technical assistance and system administration to Member Energy office to carry out routine tasks smoothly. Scheduled backup was taken from Member Energy office of official data on a separate drive for robust availability of data.

Planning Commission

Assistance on development of the Five-Year Plan is an urgent priority for Planning Commission. EPP Policy team has deployed resources at the PC to ensure that support is provided in a timely manner.

Issues Constraints

No constraints were faced during the reporting period.

ISSUES/CONSTRAINTS AND STEPS TAKEN TO RESOLVE THEM

MWP

There have been two changes this month in the senior management at Ministry of Water and Power. The previous Secretary, Ms. Nargis Sethi has been replaced by Mr. Younis Dagha. At the same time, the Joint Secretary (NTDC), Mr. Aftab Ahmad has retired and Mr. Zafar Abbas has been appointed to that position. EPP transmission team has already held a meeting with the newly appointed Joint Secretary to brief him on ongoing activities in transmission. An introductory meeting with the new Secretary will also be held when possible.

MPD

Power SIM is currently being used at the Planning Commission. The analysis being done through Power SIM requires up-to-date power sector data. EPP has requested the GOP stakeholders to provide the required data at the earliest possible. A letter from the Planning Commission has been sent out to Ministry of Petroleum for relevant gas power plant data. EPP has also contacted Alternative Energy Development Board (AEDB) for relevant renewable energy generation data.

MOF

No constraints were faced during the reporting period.

MPNR

LNG

Full mission bridge simulation study for PQA had to be put on hold upon finding out that EETPL had sponsored a similar study. A decision on whether to undertake the study would be made following review of the report of simulation study sponsored by EETPL, once available.

Technical drawings and documents related to LNG Terminal construction were not made available by EETPL to ECIL-Granada to enable them to provide monitoring support to PQA. Upon

highlighting of the issue by EPP, PQA wrote to EETPL to provide the necessary documents and drawings to ECIL-Granada. This is actively being pursued.

Shale Gas

OGDCL has invoiced LMKR for the well cores it provided which were shipped to NuTech Labs for assessment. As the invoiced amount was excessive, LMKR raised the issue with DGPC. DGPC assured LMKR that this data would not be charged as invoiced by OGDCL and should be included in the study. The matter was taken up with OGDCL. However OGDCL has again reminded LMKR for payment of the said amount. The issue has been discussed with DGPC and Additional Secretary MPNR for resolution.

DGPC recommended inclusion of additional Confidential Wells data (Cores/Cuttings) in the ongoing resource assessment study. LMKR has provided a map plotting the additional wells (14 Wells) with the existing Wells to highlight the coverage area. The inclusion of this data would lead to additional cost and a delay of 3 to 4 months in the final resource assessment report. However this will increase the confidence level of the findings. LMKR has been requested to provide requisite information regarding additional cost with LOE justification enabling EPP to submit a proposal to USAID for consideration. An initial response was provided. LMKR was requested to revise their breakdown and cost estimates consistent with the Delivery Order.

Upstream Oil & Gas Support

There is a serious constraint of manpower in DGPC. A proposal for DGPC manpower support including Implementation Unit has been submitted to USAID for consideration.

ARI, the prime sub-contractor under contract with PTS, has refused undertaking the Shale Gas Policy formulation work due to travel constraints to Pakistan (security advisory). Keeping in view the current situation, a proposal for re-appropriation of funds under PTS contract to issue a fresh RFP for formulation of Shale Gas Policy framework has been submitted to USAID for approval.

Model Supplemental Agreement for conversion from older regime to 2012 Policy terms was finalized and submitted to DGPC in July 2014 after consultation with the Industry for GOP approvals. The matter is still pending with DGPC. In order to process this Agreement, EPP along with consultants is following up the matter with DGPC for early consideration and approval.

ANTICIPATED ACTIVITIES FOR THE NEXT REPORTING PERIOD

MWP

- Stakeholder meeting to finalize PPA for Jamshoro.
- Preparation of Performance Contract with NTDC, after consultation with relevant stakeholders.
- Completion of Fuel Supply Agreement Template.
- Power SIM training of Section Officers.

MPD

- Assistance to the Member Energy on a variety of issues in the Power Sector including transmission, generation, circular debt analysis
- Continued application of Power SIM through Five-Year Plan

MOF

- The assistance will be provided to examine and formulate views on the policy proposals to be submitted by the energy sector ministries / entities to Ministry of Finance.
- Monitoring of Power Sector Circular Debt.

MPNR

- **LNG:** Signing of sub-contract and delivery order for consulting services for LNG import terminals at PQA; decision on conducting the full bridge mission simulation study for PQA and training of PQA pilots/tug masters for maneuvering of LNGCs; continuation of provision of legal support to SSGC for LSA open items; implementation of work plan for LNG procurement strategy; support to GOP in G2G negotiations for LNG procurement; capacity building of GOP stakeholders.
- **Shale Gas:** Completion of Milestone #4 and commencement of Component – 2.
- **Upstream Oil & Gas Support:** Finalization of Draft Model Supplemental Agreement for conversion of Policies and report on the summarization of Peer Analysis data with inferences for Pakistan.

COMPONENT 3: NEW PROJECTS, PLANNING AND DEVELOPMENT

EPP continued updating information on cost estimates, activity schedules for PIL agreement of Kaitu River and Affiliated Structure.

Run-of-River (RoR) Projects

There was no significant activity on the Run-of-River projects during the month. EPP has been advising and assisting USAID in their discussions and working with WAPDA to determine possible USG funding to complete the Alai Khwar and Dubair Khwar hydropower Projects. On directions from USAID, EPP also conducted Rapid Environmental Analysis (REA) for the projects, however, the activity is currently inactive.

Kurram Tangi/Kaitu Weir Project

EPP assisted USAID in meetings with WAPDA to discuss progress and advised on next steps necessary to further the Kaitu Weir Project (part of the Kurram Tangi Dam Project). WAPDA and their consultants are to provide details and breakdown of project costs, among other information and clarifications that USAID has asked for.

ADDITIONAL SUPPORT TO USAID

EPP responded to queries from USAID on 'cost estimation' process for G2G Funding of Hydropower Projects Component 3 staff assisted in monitoring ongoing Training on Hydropower Plant Operations

ISSUES/CONSTRAINTS AND STEPS TAKEN TO RESOLVE THEM

- The Kaitu Weir project (KWP) is a part of the Kurram Tangi multipurpose Dam Project (KTDP). The main project has been divided on advice of EPP in parts by WAPDA to accommodate and facilitate funding indicated to be available from USAID. The estimated cost of KTDP is around \$700 million whereas KWP is expected to be completed in about \$120 million per current WAPDA estimates.
- Costs and plans are being finalized between USAID and WAPDA with the active advice, assistance and participation of the donor funded project development experience, hydropower expertise and knowledge of WAPDA process and procedures that is available in EPP.
- USAID has been advised that establishing and operating a Project Office at Spin Wam in North Waziristan will demonstrate access to site and signal possibility to start project activities.
- Currently, the essential "next step" is successful receipt of bids at WAPDA from contractors willing to build the Kaitu Weir and Affiliated Structures.

ANTICIPATED ACTIVITIES FOR THE NEXT REPORTING PERIOD

Continue advice and assistance to further the Kaitu Weir (and affiliated structures) project. Provide advice and assistance on any other new project that USAID wants to consider for review and/or asks EPP to exercise Due Diligence and make recommendations.

COMPONENT 4: NEW ACTIVITIES

New Activities and an expanded scope to EPP's work were identified to respond to the Government of Pakistan's efforts to address the current energy crisis and the severe load shedding that adversely affects all sectors of Pakistan's economy. Due to the magnitude of the energy crisis in Pakistan, EPP's New Activities Component seeks to accelerate efforts that assist USAID in increasing energy supplied to the economy. EPP delivers this support in a way that builds the capacity of the GoP to ultimately continue these activities without external support, and with a bias toward utilizing the personnel of the generation companies and transmission system, including DISCOs and transmission operation and the maintenance staff to perform this work.

TRANSMISSION

PESCO

To date, 368.6 MW of transmission throughput capacity have been added to PESCO's network as a result of EPP's assistance (capacity added in the reporting month: 0 MVA).

Technical Audits

Audit reports are being compiled – 64 out of 84 (~76%) reports have been compiled to-date. All substations have been audited. The reports highlight shortcomings/bottlenecks found and recommend preventive & corrective measures.

Power Transformer Program

- Five oil sample results were received and analyzed this month, making 201 of 211 (~95%) completed. The results determine potential transformer damage and the consequence of an outage which can cause unscheduled load-shedding.
- A 20/26MVA power transformer was successfully replaced and commissioned by EPP team at Chakdara 132kV GS. This replacement makes 26MVA of transformation capacity reliable in PESCO's network.

Capacitor Bank Rehabilitation

The procurement action for the installation and commissioning of the equipment is underway. We received bids this month. Bids will be evaluated in coming month.

P&I Vans and Test Equipment

Modifications of the vans, for housing the tools and equipment, are underway. The equipment and vans will be handed over to PESCO in an official event.

Tower Repair

PO has been awarded to M/s. CPM for execution of work. The job is likely to be completed by end of December 2014.

Transmission and Grids (T&G) Equipment

PO has been awarded to M/s. Ikram Corporation for supply of T&G equipment. The delivery period is 4 months.

Cooling Fans

Bids were received by procurement department on October 20, 2014. Technical evaluation has been approved by DCOP and submitted to procurement department for further action.

NTDC Technical Audits

To-date, 27 audit reports have been compiled. The reports propose steps necessary for carrying out both preventive and corrective maintenances and also recommend infrastructure upgrade/augmentation where necessary. A total of 33 out of 48 substations have been audited (~68%) till now. The stations audited this month are: Shalimar 220kV GS and Ghazi Road 220kV GS.

IT Support for Secured Metering System (SMS)

Display installations, at DISCOs, are in progress. Six out of nine DISCOs have received the system; the remaining three DISCOs will be covered in coming month. The assembly, installation and commissioning of Storage Area Network (SAN), Servers, UPSs and other associated equipment completed last month. The system will help NTDC on commercial and operational fronts.

NTTDC System Studies

- Integration of intermittent renewable resources with national grid: the procurement action is underway.
- Load flow study: the procurement action is underway.

Real Time Digital Simulator

PO has been awarded to M/s. OPAL-RT this month. The vendor is to deliver, install and commission system in three months.

Hardware and Software for NTDC Design

- Hardware for NTDC's Design Department: PO awarded to M/s. EGS (Pvt.) Ltd. The vendor is to deliver all the items in two months' time.
- Software and Training for NTDC's Design Department: the procurement action is underway.

Live Line

- All Live Line tool trailers have been received.

Issues/Constraints and Steps Taken to Resolve Them

- PO for procurement of transformer oil was issued to M/s. Orient Oils (Pvt.) Ltd., but, due to Tax exemption issue EPP hasn't received oil yet.

Anticipated Activities for the Next Reporting Period

- Repair of damaged Transmission Line Towers (132kV & 66kV) in KPK.
- Installation and commissioning of 132/66kV power transformer at Chakdara GS.
- Handover ceremony of Protection and Instrumentation (P&I) vans and Live Line Tools and Plants.
- Technical audit of NTDC grid stations.
- Installation of Displays at PESCO, GEPCO and FESCO.

CROSS-CUTTING ACTIVITIES

CAPACITY BUILDING

Best Practices in Thermal Operations and Maintenance Training

EPP completed its focus group discussion with participants from the thermal O&M training, held between March and June of 2014. Discussion results and assignment monitoring will be shared with USAID in November 2014.

Best Practices in Hydro Operations & Maintenance Training

EPP completed the first of the three programs focused on best practices in hydro O&M on October 31, 2014. Through training, the hydro plants will be able to identify deficiencies in their current maintenance practices and increase the plants efficiency. Additionally, EPP recruited five females from National University of Science and Technology (NUST), Center for Advanced Studies in Engineering (CASE) and Air University- a public research university run by the Pakistan Air Force. In total, EPP trained the following:

Table 1: Hydel Staff and Students of Hydro O&M Training

Hydel Power Stations	Batch 1 Participants (October 2014)
Tarbela	3
Ghazi Barotha	5
Mangla	4
Warsak	2
Chashma	2
Renla	1
WAPDA	2
Female Students	3
Female Lab Engineers	2
Total	24

The selected hydel participants represent junior, senior management-level engineers, with experience that ranges from 2 to 25 years in their respective technical areas of responsibility.

NTDC and CPPA Support

EPP completed the first of the three exchange visits to the US focused on improving grid operations on October 29. Through these exchanges, EPP aims to improve transmission capacities in Pakistan's power sector while establishing professional relationships to draw upon after the conclusion of the program.

EPP received USAID approval for the second exchange visit, focused on market operations, tentatively scheduled for January 2015. Following the confirmation of the participants from NTDC and USAID travel authorization, EPP will begin JI visa process.

Live Line Maintenance

Planning and preparations are underway to deliver live line tools to five DISCOs. Following the handing over ceremony (tentatively scheduled for November 13), EPP will kick off Live Line Maintenance refresher training for the five previously trained DISCOs.

LNG

EPP is finalizing vendors for the LNG Business Management Intensive program, anticipated to be held in Kuala Lumpur in February/March 2015. The program will focus on improving MPNR, ISGS, PQA, and PSO port and commercial capacity related to LNG import.

GENDER ACTIVITIES

Gender Equality Assessment

EPP is preparing to deliver a gender assessment to be followed by a gender strategic plan and a public forum for enhanced gender integration in the energy sector in Pakistan. The assessment will determine a baseline of gender equality, and the associated gender strategic plan will provide realistic and effective recommendations and activities for promoting gender equality initiatives.

Female Participation in Training Activities

In an effort to increase female participation, EPP ensured participation of 5 female students/alumni including two lab engineers from Islamabad universities in the hydro O&M training. Additionally, WAPDA nominated three female staff participants.

MONITORING & EVALUATION

M&E Plan and PakInfo

EPP received USAID approval on the October 2014 M&E plan. Currently, EPP is preparing the quarterly PakInfo entry.

Site Visits

EPP conducted post-training evaluations at Muzaffargarh and Guddu Thermal Power Station (GENCOs II & III). The purpose of the site visit is to review O&M training outcomes. EPP is developing a comprehensive evaluation report outlining the responses gathered through focus group discussions with the thermal O&M training participants.

ANTICIPATED ACTIVITIES FOR THE NEXT REPORTING PERIOD

- NTDC Grid Operations Exchange post-training brief and action plan review
- EPP will deliver the second of the three hydro O&M training course in November 2014.
- EPP will conduct follow up interviews with SAN trainees to know their learning outcomes.
- EPP will monitor and evaluate PowerSIM progress at MPNR following the delivery of Power SIM model.
- EPP will host participants for the market operations exchange for J-1 visa paperwork. EPP will also arrange participant's appointments with USAID medical providers and SRFI interview with USAID/Energy Office representative.
- A short-term Gender Specialist will begin drafting gender strategy for key stakeholders in November to be shared with USAID for comments.
- EPP will seek nominations for LNG Business and Management Intensive Training.
- EPP will conduct one-on-one interviews with NTDC's nominated participants for the "Commercial Operations Exchange" visit to the United States.

COMMUNICATIONS

EPP's Communications activities promote and develop outreach strategies that highlight the program's ongoing efforts and achievements.

OUTREACH MATERIAL

In order to strengthen communications and outreach efforts, the Communications Team began documenting data that will help develop in the preparation of success stories and Fact Sheets. Communications unit is extending support towards publication of several procurements and job advertisements in local and international newspapers. Similarly, a variety of information is uploaded on the official EPP website to keep viewers abreast of current and past activities and interventions. Other promotional material such as banners and standees were designed and produced catering for programmatic events.

REPORTS

- Ensured appropriate USAID branding and marking for the following EPP-generated reports and other dissemination material:
- 26 presentations for the training on Best Practices in Hydro Operations and Maintenance.
- Draft agenda for Executive Exchange on Best Practices in Grid Operations for National Transmission and Despatch Company Limited.
- Work Plan: September 2014 – October 2015.
- Monitoring and Evaluation Plan: October 2013 – October 2015.
- 46 presentations for the training on Best Practices in Hydro Operations and Maintenance.
- Work Plan: September 2014 – October 2015
- Prepared certificates for 24 trainees of “Best Practices in Hydro Operations and Maintenance” training
- 11 presentations for the training on Best Practices in Hydro O&M
- Final Test for the training on Best Practices in Hydro O&M
- Environmental Monitoring and Audit Report GTPS – Visit 9
- Environmental Monitoring and Audit Report MTPS – Visit 7
- Monthly report: September 2014

EPP hosted a certificate distribution ceremony on completion of first batch's training on Best Practices in Hydro Operations and Maintenance.

ANTICIPATED ACTIVITIES FOR THE NEXT REPORTING PERIOD

The Communications Team, in coordination with EPP Transmissions team and DISCOs, will help organize the Live Line Tools Handover Ceremony, which shall be a mega media event.

The Communications Team will also coordinate with Cross Cutting Team for their 2st batch certificate distribution ceremony of Best Practices in O&M Hydro.

ADMINISTRATION/MANAGEMENT SUPPORT TO EPP

EPP's Administration and Finance Department is structured to support on-going and planned program activities, while ensuring contractual compliance. This department is responsible for the following functions: Accounting and Finance; Human Resources; Procurement and Contracts; Logistics; and IT. In implementing these functions, processes and policies are developed to ensure efficiency, compliance and delivery of quality support.

ACCOUNTING AND FINANCE

Administration is structured to support on-going and planned project activities while ensuring contractual compliance. Administration encompasses the following functions: Accounting/Finance, Human Resources, Procurement & Contracts, Logistics and IT. In implementing these functions, processes and policies are developed to ensure uniformity of efforts.

Table 4: Accruals Table

Description	As At Aug 30, 2014 TOTAL	Sep 2014, Accruals	As At Sep 30, 2014
	Amount in USD		
Sub Obligation	44,993,410	44,993,410	44,993,410
Additional sub-obligations/ incremental funding	-	-	-
	44,993,410	44,993,410	44,993,410
Previously reported Expenditure		32,246,835	32,246,835
Salary	6,941,936	304,356	7,246,292
Fringe Benefits	1,882,496	83,911	1,966,407
Allowances	1,531,159	52,074	1,583,233
Travel	1,306,128	89,179	1,395,307
ODC	3,523,264	129,229	3,652,492
Overheads	1,320,775	53,414	1,374,190
G & A	1,946,061	73,923	2,019,983
Training	458,215	75,333	533,548
Sub-Awards	4,211,777	655,762	4,867,539
Procurements	7,071,396	520,128	7,591,524
Material OH	228,337	21,646	249,983
FEE	1,825,292	123,537	1,948,830
Projected expenditure	32,246,835	2,182,493	34,429,328
Cumulative expenditure	32,246,835	34,429,328	34,429,328
Pipeline	12,746,575	10,564,082	10,564,082

Finance

Payroll maintenance and reconciliations with previous payroll and financial reconciliations were completed; miscellaneous technical payments were made to vendors during the month record keeping.

- A. Time Sheets (Islamabad, Lahore and Peshawar)
- B. Per Diem Calculations (Islamabad, Lahore)
- C. Overtime Calculations (Islamabad, Lahore and Peshawar)
- D. Deductions (Mobile and Others) (Islamabad, Lahore and Peshawar)
- E. Transfer advice preparations (Islamabad, Lahore and Peshawar)
- F. Pay Slips for the month of Oct 2014 (Islamabad, Lahore and Peshawar)
- G. Technical Payments (Foreign Wires)

Logistics

Logistical support was provided for 58 trips made by project staff. International travel for expats was arranged.

Human Resources

During the reporting month, Completed Recruitment for the following staff

A) Inductions during Oct 2014:

- 1) Humzah Qamar Yazdani (Legal Specialist) Islamabad Office
- 2) Zafar Ali Khan (Live Line Demonstrator) Islamabad Office
- 3) Malik Jan (Driver) Islamabad Office

B) Deductions during Oct 2014

- 1) Niaz Ud Din (Transmission Engineer) Peshawar Office
- 2) Shah Muhammad Khan (Transmission Engineer) Peshawar Office

B) Leave Record (Islamabad, Peshawar and Lahore)

C) Health Insurance and Card Issuance (Islamabad, Peshawar and Lahore)

D) Monitoring of Mobile and OPD/IP Ceilings (Islamabad, Peshawar and Lahore)

E) Interviews conducted for the positions advertised.

- 1) Communications Specialist
- 2) Events Specialist
- 3) Short Term Training Coordinator
- 4) Short Term Generation Expert (in progress)
- 5) Policy Specialist

F) Life Insurance of AEAI employees.

IT PROCURMENT

EPP procured following hardware/software Items for Islamabad, Peshawar and Lahore offices.

- 1. Scanner assembly repair for 5525dn Printer
- 2. Yellow and magenta toner for 4005 Printer
- 3. 500GB Laptop hard disk drive
- 4. 1 Samsung Galaxy Grand II Cellular phone
- 5. Black toner for 5525dn Printer
- 6. Magenta toner for 2025dn Printer
- 7. Miscellaneous IT Accessories like USB Optical Mouse, Cables, Power Adapters, Laptop bags, etc.

IT SUPPORT & SERVICES

1. Installation, Configuration and e-mail accounts setup for new inductions.
2. Video conferencing management between Islamabad, Lahore and Peshawar offices.
3. Bio-metric time and attendance machine troubleshooting and centralized network management
4. QuickBooks Accounting and POS applications support for Islamabad and Peshawar office.
5. Tracking of 20 official eVo Internet devices monthly recharges
6. Dell SonicWALL NSA 240 network firewall installation and configuration at Lahore office
7. Troubleshooting of (AEAI, ISB office, M/o Finance, NPCC, Lahore office and Peshawar office) Network Printers and complete track of cartridges/toner replacement.
8. Monthly attendant backup activity for outlook e-mails communication.
9. IT support to all program staff including seconded staff and third party contractors working at Ministries, NPCC and DGPC.
10. 24/7 Internet, telephone and Digital HD box video services support and troubleshooting at Expatriate's residences in Islamabad and Peshawar.
11. E-mail Server management of **ep-ep.com.pk** domain and BlackBerry Services Administration and support for all Program Staff.
12. Complete monthly payroll and large-scale official documents scanning
13. Assisting Administration & Finance department to keep well-run database record for Travel Authorization and Leave Application Forms
14. Daily routine hardware, software, systems and network support to all EPP staff
15. Request for proposals and groundwork for all IT related procurements.

PROCUREMENT

Table 5: Completed Procurement

Item	Achieved or Completed	Targets LOP	% Completion
Procurement contracts (\$ million)	25.36	39.83	63.67

Table 6: Purchase Orders Issued during the Month

Progress/ Activities	Impacts	Issues/ Constraints	Resolving Issues
Lenovo Laptops for AEAI Staff: Purchase order issued for supply of 10 Lenovo laptops for AEAI new staff. Amount USD 11,470	N/A	N/A	N/A
Supply, delivery of Tools & Equipment for PESCO T&G Department: Purchase order issued for supply and delivery of Tool & Equipment for PESCO T&G Equipment. USD761,472	N/A	N/A	N/A
Repair of Damaged Towers-PESCO: Purchase order issued for repair of Damaged Towers. USD 300,490.	N/A	N/A	N/A
Consultancy Services for LNG Import Terminals at Port Qasim: Purchase order issued for Consulting Services for LNG Import Terminals at Port Qasim. USD 1,500,000.	N/A	N/A	N/A
Power Transformer Oil: Purchase order issued for Supply of 4200 Litre Power Transformer Oil for Chakdara-PESCO. USD 6,358.	N/A	N/A	N/A
Modification of P&I Testing Vans: Purchase order issued for Modification of three P&I Testing Vans for PESCO. USD 11,000.	N/A	N/A	N/A
Replacement & Installation of PTF Chakdara: Purchase order issued for Replacement, Commissioning and Installation of 31.5/40MVA 132/66kV Elta repaired Power Transformer at Chakdara Grid Station. USD 18,500.	N/A	N/A	N/A
Hardware NTDC Design Department: Purchase order issued for Supply, delivery, installation and training of Hardware Equipment for NTDC Design Department. USD 109,411.	N/A	N/A	N/A
Real Time Digital Simulator: Purchase order issued for Supply, delivery and installation of a turnkey solution for a Real-Time Digital Simulator for NTDC Planning Department. USD 1,708,200.	N/A	N/A	N/A

Work Continued

- 1) ERP Implementation Project for NTDC:** Bids received and Technical bids opened. Technical committee nominated and Technical review in process for ERP Implementation Project for NTDC. Approx. **USD 4,500,000.**
- 2) Study for Enhancement of Transmission Capacity of NTDC:** Consent letter sent to USAID for approval. Approx. Amount **USD 359,000.**

- 3) **Bus Dis-connector, Current Transformer and Surge Arrestors:** Consent letter sent to USAID for supply of Bus Disconnecter, Current Transformers and Surge Arrestors for Mardan and Nishatabad GS to be delivered at NTDC Warehouse Gatti. Amount **USD 328,775**.
- 4) **4 Sets of 220kV & 27 Sets of 132 kV Circuit Breakers:** Consent Letter sent to USAID for supply of 4 sets of 220kV & 27 sets of 132 kV Circuit Breakers for NTDC & PESCO respectively. Amount **USD 700,000**.
- 5) **LNG Business Management Intensive Training Program:** Negotiation in process. Best & Final offer received and technical review completed and financial analysis in process. Amount **USD 265,975**.
- 6) **Consultancy for Study to determine the limit of Integrating Intermittent Renewable (Wind & Solar) Resources onto Pakistan National Grids.** Consent letter is ready to send USAID. Amount **USD 332,000**.
- 7) **Software for NTDC Design Department:** Financial analysis and draft PO sent to HO for review for Software with Training for NTDC Design Department. Amount **USD 500,000**.
- 8) **Full Bridge Simulation Study Service:** On hold by PQA, Approx. Amount **USD 250,000**.
- 9) **Supply of Hardware Connectors and Conductors for NTDC Mardan & Nishatabad GS:** Technical review completed and financial analysis in process for Supply of Hardware Connectors and Conductors for NTDC Mardan and Nishatabad Grid Stations. Amount **USD 300,000**.
- 10) **Personal Protective Equipment (PPE):** Technical review completed and financial analysis in process for Supply of Personal Protective Equipment (PPE) for Live Line Trainers. Amount **USD 48,000**.
- 11) **Oil Purification Plant:** Technical review completed and financial analysis in process for Supply of two Oil Purification Plants for PESCO. Amount **USD 150,000**.
- 12) **Damaged Auto-Transformers:** Transportation PO drafted and sent to HO for review and approval for repair of damaged auto-transformer-PESCO. Amount **USD 500,000**.
- 13) **Supply & installation of Cooling Fans & MCBs:** Technical review completed, commercial bidding in process for Supply & installation of 129 cooling fans and 50 MCBs-PESCO. Amount **USD 67,000**.
- 14) **Supply of 04 Crane Mounted Trucks for PESCO:** Request for Proposal uploaded at EPP website for supply of 04 Crane Mounted Trucks for PESCO with closing date November 10, 2014. Amount **USD 300,000**.
- 15) **Installation and commissioning of Capacitor Banks for PESCO:** Request for Proposal sent to limited bidders for installation and commissioning of Capacitor Banks at Tall, Bannu and Jahangira Grid Stations with closing date extended till October 31, 2014. Amount **USD 20,000**.
- 16) **Insurance for 09 Nos. Toyota Vigo:** Request for Proposal sent to limited bidders for comprehensive insurance for 09 Nos. Toyota Vigo with closing date October 31, 2014. Amount **USD 6,000**.
- 17) **Temporary Insurance for 41 Lineman:** Purchase order in process for arranging temporary insurance for 41 line man. Amount **USD 1,999**.
- 18) **Supply of Nitrogen Injection Explosion Prevention and Fire Protection System:** Request for Proposal uploaded at EPP website for supply and delivery of Nitrogen Injection

Explosion Prevention and Fire Protection System for Autotransformer for NTDC with closing date November 03, 2014. Amount **USD 300,000.**

- 19) **Technical Assistance for Monitoring and Auditing:** (On Hold) Bids received and Technical bids opened. Technical committee nominated and Technical review in process for Technical Assistance for Monitoring and Auditing Implementation Compliance of EDF and EMMP for Hydroelectric Power Plants, Transmission and LNG Activities. Amount **USD 25,000.**

Planned Activities for the Next Month

1. Purchase order/Sub Contract for consultancy for Study for enhancement of transmission capacity of NTDC's 500kV Transmission System by the application of Series Compensation.
2. Purchase order for Software with Training for NTDC Design Department.
3. Purchase order for supply of Bus Disconnecter, Current Transformers and Surge Arrestors for Mardan and Nishatabad GS to be delivered at NTDC Warehouse Gatti.
4. Purchase order for supply of 4 sets of 220kV & 27 sets of 132 kV Circuit Breakers for NTDC & PESCO
5. Purchase order in process for temporary insurance for 41 line man.
6. Purchase order and bid analysis in process for Supply of Personal Protective Equipment (PPE) for Live Line Trainers.
7. Purchase order and bid analysis in process for repair of damaged auto-transformer-PESCO.
8. Purchase order for Supply of two Oil Purification Plants for PESCO.
9. Purchase order for Supply & installation of 129 cooling fans and 50 MCBs-PESCO.
10. Sub-contract/work order for LNG Business Management Intensive Training Program.
11. Bid evaluation in process for Supply of two Oil Purification Plants for PESCO.
12. Bid evaluation process for LNG Business Management Intensive Training Program.
13. Bid evaluation process for supply of Bus Disconnecter, Current Transformers and Surge Arrestors for Mardan and Nishatabad GS to be delivered at NTDC Warehouse Gatti.
14. Sub Contract for Training for Power SIM Model for Ministry of Petroleum: Training in process Power SIM.
15. Sub Contract for Consultancy for Study to determine the limit of Integrating Intermittent Renewable (Wind & Solar) Resources onto Pakistan National Grids.
16. Bid evaluation process for supply of 4 sets of 220kV & 27 sets of 132 kV Circuit Breakers for NTDC & PESCO respectively.
17. Bid evaluation process for supply of Bus Disconnecter, Current Transformers and Surge Arrestors for Mardan and Nishatabad GS to be delivered at NTDC Warehouse Gatti.
18. Bid evaluation process for Supply of Personal Protective Equipment (PPE) for Live Line Trainers.
19. Bid evaluation process for Supply of Hardware Connectors and Conductors for NTDC Mardan and Nishatabad Grid Stations.
20. Bid evaluation process for consultancy for Study for enhancement of transmission capacity of NTDC's 500kV Transmission System by the application of Series Compensation.
21. Bid evaluation process for LNG Business Management Intensive Training Program.
22. Bid evaluation process for Consultancy for Study to determine the limit of Integrating Intermittent Renewable (Wind & Solar) Resources onto Pakistan National Grids.
23. Duty free customs clearance of partial delivery of tools & equipment for P&I Vans for PESCO.
24. Follow-up for delivery of SAN & Equipment and Training for NTDC.
25. Inventory Tagging and arranging Material Receiving Report (MRR) for delivered goods.

LIST OF KEY MEETINGS

Table 7: List of Key Meetings Conducted in October 2014

Meeting with	Date	Location	Purpose	Outcome/Result
Carlos Guerra	16	EPP Islamabad Office	To discuss the progress of GENCOs and plan of USAID visit to Guddu Power Plant	Briefed about the GENCOs progress ad plan for the Guddu Visit finalized and shared.
Iftikhar Aziz (CEO Jamshoro)	21	Jamshoro Thermal Power Station	To discuss the Performance efficiency improvement (PEI) program and schedule of remaining items	1. Briefed CEO about the PEI program Schedule for the remaining items was prepared and shared with USAID
Rukhsar Qureshi (CEO Guddu)	25	Guddu Thermal Power Station	To brief about the USAID visit plan	USAID visit to power plant was breifed
Member Power, GM hydel	28 & 29	WAPDA house Lahore	To discuss the progress of Mangla Procurement, status of procurement under Tarbela Phase II, Payment plan for Tarbela phase II, WAPDA request of replacing 1/3 rd spare winding with Rotor Poles	1. Status of Mangla Procurement updated and documents taken from WAPDA 2. Status of Tarbela Phase II Procurement updated 3. Revised Payment plan for Tarbela Phase II taken from WAPDA EPP expert will visit tarbela power station and check the spare winding in the inventory of Tarbela
MSI	28	EPP Islamabad Office	To discuss the Generation MW Data Calculation for data verification at Jamshoro & Tarbela	MSI will visit Jamshoro on Nov 14, 2014 & Tarbela On Nov 17, 2014

Meeting with	Date	Location	Purpose	Outcome/Result
Federal Minister MPNR, Secretary MPNR, ISGS, SSGC, PSO, SNGPL, FGE, WFW, EPP	October 30-31, 2014	Serena Hotel, Islamabad	To hold discussions with Federal Minister MPNR and senior GoP officials from Oct. 30 – 31 to finalize LNG procurement strategy and timelines, review key terms of draft agreements and negotiation items, and agree on specific activities to secure commercially viable LNG cargoes by the commissioning date of the Fast Track LNG terminal.	Final comments on Qatar Gas SPA and draft MSPA, and specific activities to secure commercially viable LNG cargoes by the commissioning date of the Fast Track LNG terminal.
USAID Office of Energy, FGE , WFW and EPP	October 31, 2014	AEAI Offices	To obtain a briefing from consultants regarding progress on LNG procurement, planned activities and to review with EPP support to PQA	USAID were informed about the recent, ongoing and planned activities. Certain guidelines were given by USAID to the consultants and EPP regarding the program and maintaining adequate project tracking, issues addressed and resolved, and to maintain proper documentation of program activities.
WAPDA- USAID- EPP	2nd	EPP Energy House, Islamabad	Discuss Kaitu Weir (and affiliated structures) Project	Validation of project cost and milestone dates for Activity Schedule
WAPDA-USAID - EPP	20th	EPP Energy House, Islamabad	Discuss Kaitu Weir (and affiliated structures) Project	Initiate PC I for 132kV transmission line Determine basis for project cost estimate Include 11kV Distribution System
USAID- EPP	29th	EPP Energy House, Islamabad	Discuss Kaitu Weir (and affiliated structures) Project	Issues in Wapda Consultancy agreement with MMP Process for exemption of Duties and Taxes for WAPDA on USAID funded projects

Meeting with	Date	Location	Purpose	Outcome/Result
Mr. Carlos Guerra	16 th October, 21 st October	EPP Office	Briefing on Power SIM activities	<ol style="list-style-type: none"> Continuing work with Member Energy on the current five year plan (which is still in draft stage). Conducting hands-on training to two Section Officers nominated by Mr. Zargham (JS Policy). <p>Update on Power SIM and its applicability at NTDC after meetings with their team in Lahore</p>
Mr. Irfan Yusuf (Director CDM)	20 th October	Alternative Energy Board (AEDB)	Request for data	<ol style="list-style-type: none"> Template provided with renewable energy generation projects, both current and those in the pipeline <p>Data will be used in preparing the 11th Five-Year Plan at the Planning Commission</p>
Mr. Zargham Khan (Joint Secretary, MWP)	21 st October	Ministry of Water & Power	Discussion on ongoing activities with MWP	Discussion on PPAs relating to proposed stakeholder meeting
Mr. Zafar Abbas (Joint Secretary, NTDC)	27 th October	Ministry of Water & Power	Introductory meeting with newly appointed Joint Secretary	EPP's transmission team held introductory meeting with newly appointed Joint Secretary (NTDC) on key activities being conducted
Mr. Noor Ullah (DG Gas Office)	28 th October	DG Gas Office	Request for data	EPP requested current data on gas based power plants to be used in the 11 th Five Year Plan
Tahir Mahmood, Managing Director NTDC	29 th October	NTDC	Introductory meeting and discussion of activities policy team is doing with NTDC	<ol style="list-style-type: none"> Briefed the MD on how the Business Transfer Agreement impacts NTDC's financial position in the way it is currently written, which NTDC will now look in detail. <p>The focal person at NTDC for the Performance contracts was also decided.</p>
Rehan, General Manager NTDC Planning Touseef-ur-rehman, Assistant Manager Load Forecasting	29 th October	NTDC	Introductory meeting, discussion on how we can assist planning on Load Forecasting. Discussion on Transmission expansion plan	<ol style="list-style-type: none"> It was agreed that EPP will be providing assistance to NTDC Planning to improve their Load Forecasting Capabilities. <p>Obtained the latest transmission expansion plan which goes with the latest generation plan, this will become part of the 11th five year plan.</p>

Meeting with	Date	Location	Purpose	Outcome/Result
Gulzar, DG HR & Admin NTDC, Committee members comprising senior officers of NTDC	28 th October 29 th October	NTDC	Meeting to discuss the comments/inputs by EPP for RFP which NTDC is developing to procure consulting services for organizational restructuring.	<p>I. It was agreed that EPP will be providing assistance to NTDC in development of RFP.</p> <p>EPP will meet with employees of NTDC to help them develop a mission/vision statement.</p>
CE TSG, NTDC	Oct 30, 2014	TSG Office, NKLP, LHR	Discuss the activity performed by the Live Line Consultant and their recommendation	<ul style="list-style-type: none"> CE TSG suggested to add video lectures of the revised procedure to the live line curriculum He also suggested exchange trip for linemen to go abroad and see the live line works being performed CE told NTDC would be willing to buy furniture for its Tarbela Training Center rehab. as a cost share if EPP agrees to provide them T&P for their center EPP asked them to add basic electrical theory to the curriculum for live line training <p>The CE agreed to arrange a trainer and a demonstrator for the upcoming live line training sessions</p>
SE GSO, IESCO	Oct 24, 2014	IESCO, Islamabad	Installation of the LEDs at IESCO Control Room	<ul style="list-style-type: none"> 2x Displays were installed at IESCO HQ Demo of the interface and working of the system was explained to IESCO Engineers <p>Inputs given by IESCO were noted and shared with NTDC for further refinement of the system</p>
CE O&M, QESCO	Oct 20, 2014	QESCO HQ, Quetta	Installation of the LEDs at QESCO Control Room	<ul style="list-style-type: none"> 2x Displays were installed at QESCO HQ Demo of the interface and working of the system was explained to QESCO Engineers <p>Inputs given by QESCO were noted and shared with NTDC for further refinement of the system</p>

Meeting with	Date	Location	Purpose	Outcome/Result
SE GSO, SEPCO	Oct 14, 2014	SEPCO, Sukkur	Installation of the LEDs at SEPCO Control Room	<ul style="list-style-type: none"> 2x Displays were installed at IESCO HQ Demo of the interface and working of the system was explained to IESCO Engineers Inputs given by IESCO were noted and shared with NTDC for further refinement of the system
Thermal O&M training participants	September 03 – October 01, 2014	Thermal Power Station, Muzaffargarh	Conducted focus group discussions with O&M training participants from GENCO III	EPP identified O&M improvements and challenges 6 months after training.
Thermal O&M training participants	October 14 – 17, 2014	Thermal Power Station, Guddu	Conducted focus group discussions with O&M training participants from GENCO II	EPP identified O&M improvements and challenges 6 months after training.
Training for Pakistan (TFP)	October 15, 2014	Serena Hotel, Islamabad	Attended participant Training Working Group hosted by TFP.	EPP will circulate TFP alumni brief to all participants and work on training EPP staff on ADS and TraiNet standards
MSI Jill Tirnauer – Senior Adviser, Lindsay North - Adviser, Himat Ullah – Monitoring Specialist, Javed Rashid – Consultant, and Ahmed Shaikh – Director for Monitoring from MSI	October 24 and 28, 2014	AEAI Office, Islamabad	To introduce newly-hired consultant and the scope of work and to discuss coordination efforts for field visits and other activities.	<ul style="list-style-type: none"> EPP shared the formula for the calculations of number of beneficiaries, monitoring and evaluation plan and monitoring and evaluation reports related to Tarbela and Jamshoro Thermal Power Station. EPP will provide MSI with points of contact at selected sites.

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