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**PAKISTAN**

# ENERGY POLICY PROJECT - II MONTHLY PROGRESS REPORT

OCTOBER 2012



**October 2012**

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# USAID/PAKISTAN: ENERGY POLICY PROJECT (EPP)

Monthly Report: October 2012

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## CONTENTS

CONTENTS .....	2
ACRONYMS.....	4
PROGRAM OVERVIEW .....	6
COMPONENT 1: PROJECT MONITORING & IMPLEMENTATION.....	6
COMPONENT 2: POLICY AND REFORM.....	22
COMPONENT 3:NEW PROJECTS,PLANNING & DEVELOPMENT .....	28
ADMINISTRATION/MANAGEMENT: .....	30

## ACRONYMS

AEAI	Advanced Engineering Associates International
AGPR	Accountant General of Pakistan
CAREC	Central Asia Regional Economic Cooperation
CAR	Central Asian Republic
CCGT	Combined Cycle Gas Turbine
CDWP	Central Development Working Party
CEO	Chief Executive Officer
CPGCL	Central Power Generation Company, Ltd
CPPA	Central Power Purchasing Agency
DISCO	Distribution Company
ECC	Economic Coordination Committee
ECNEC	Executive Committee of the National Economic Council
EPP	Energy Policy Project
FARA	Fixed Amount Reimbursable Agreement
GE	General Electric
GENCO	Generation Company
GOP	Government of Pakistan
GTPS	Guddu Thermal Power Station
GZDP	Gomal Zam Dam Project
IPP	Independent Power Producer
JTPS	Jamshoro Thermal Power Station
KESC	Karachi Electricity Supply Company
LESCO	Lahore Electricity Supply Company
LNG	Liquefied Natural Gas
LPF	Liquefied Petroleum Gas
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,
MWH	Montgomery Watson Harza
MWP	Ministry of Water and Power
NPCC	National Power Control Center
NTDC	National Transmission and Despatch Company
NWA	North Waziristan Agency
PA	Political Agent

PC	Planning Commission
PDP	Power Distribution Program
PESCO	Peshawar Electricity Supply Company
PIRS	Performance Indicator Reference Sheets
PO	Purchase Order
PSDP	Public Sector Development Programme
PSO	Pakistan State Oil
PSRP	Power Sector Reform Program
SBP	State Bank of Pakistan
TOR	Terms of Reference
ToU	Time of Use
USAID	United States Agency for International Development
WAPDA	Water and Power Development Authority

# PROGRAM OVERVIEW

USAID’s Energy Policy Project (EPP) supports the jointly agreed upon interests of USAID and the Government of Pakistan in power generation and transmission and related policy reform activities. Current key activities include providing monitoring and implementation support to the following six signature energy projects, announced by Secretary of State, Hillary Clinton:

- Four repair and maintenance projects (3 GENCOs and Tarbela. Total Funding \$70.73 million)
- Two multipurpose dam completion projects (Gomal Zam and Satpara, Total funding \$66 million)

When completed, these projects, will add more than 863 MW to Pakistan’s generation capacity. As of October 2012, a total of 439 MW have been added to Pakistan’s electricity grid through USAID funding.

Project	Planned MW Gains per FARA	Expected Gains	MW added (as of 31 October 2012)
Muzaffargarh	165	475	280
Jamshoro	95	150	25
Guddu	55	75	-
Tarbela	80	128	128
Gomal Zam	17.4	17.4	-
Satpara	17.66	17.66	6
<b>Total</b>	<b>430.06</b>	<b>863.06</b>	<b>439</b>

EPP also is providing technical support to the Ministry of Water and Power (MWP) to identify and select new generation and transmission projects. Examples include potential imports of electricity from the Central Asian Republics to Pakistan through Afghanistan; providing analytical support for projects such as Step I & II Due Diligence for Kurram Tangi and Mangla Dam Projects; and issues related to these projects.

In addition, EPP is supporting generation & transmission related studies and policy reform activities assigned by USAID. These include developing GENCO and NTDC business plans; developing policies/procedures for the National Power Control Center; and advisory services at MWP and the Planning Commission (Energy Wing), Ministry of Finance (MOF), and Ministry of Petroleum and Natural Resources (MPNR).

**Staffing:** Contractor’s level of effort is comprised of 85% Pakistani and 15% international staff.

**Location:** All Provinces and Federally Administered Tribal Areas

**Total USAID Funding:** \$ 136.731 million for six signature energy projects  
 \$ 14.893 million EPP Phase II

# PROJECT ACTIVITIES

# COMPONENT I: PROJECT MONITORING & IMPLEMENTATION

The Energy Policy Project is providing monitoring and implementation support for the six signature projects announced by Secretary of State Hillary Clinton. These projects include rehabilitation of three thermal power plants (Muzaffargarh, Guddu and Jamshoro), and one hydropower plant (Tarbela dam); and construction of two new multipurpose dams (Gomal Zam Dam and Satpara Dam). Total USG funding for these projects is \$136.731 million (per revised agreements), with estimated gains in available generating capacity up to 863 MW. As of October 2012, 439 MW have been added to Pakistan's national grid.

## HYDROPOWER PLANTS

With a total funding of \$82.5 million, as much as 163MW of generation is estimated to be added through the rehabilitation of Tarbela hydropower plant and completion of two multipurpose dams, Satpara and Gomal Zam.

A baseline condition of the dams is tabulated below. For Satpara and Gomal Zam, the baseline available generating capacity at the time of signing of the agreement was zero.

Tarbela Units under Rehabilitation	Baseline at the time of FARA signing		Baseline at shut down for replacement	
	Capacity (MW)	MW gains	Capacity (MW)	MW gains
Unit 1	185	10	185	10
Unit 3	185	10	185	10
Unit 4	135	60	87	108
	<b>505</b>	<b>80</b>	<b>457</b>	<b>128</b>

### *Rehabilitation of Tarbela Hydropower Plant under FARA:*

The rehabilitation/repair work to date has resulted in the restoration of 128 MWs at Tarbela Hydropower plant. Replacement of generator windings has been completed at units 1, 3 & 4, and spare seals & guides and pumps installed.

The remaining replacement/repair work, which will increase the reliability and sustainability of the power plant, but not support restoration of additional megawatts, includes:

- Replacing the Electromechanical governors with digital governors
- Up grading the SCADA system;
- Spare parts for Unit-3 winding; and
- Replacing one dewatering pump.

The above mentioned rehabilitation work is anticipated to go beyond the completion date of December 2012 due to the delay in the procurement of Digital Governors and SCADA System. In this regard, WAPDA submitted an extension request to USAID, and a response is awaited.

EPP assisted WAPDA in preparing request for an additional funding of \$25.26 million and submitted to USAID for consideration on October 10, 2012. Equipment purchased through additional funding will further enhance the reliability and sustainability at the Tarbela power plant.

The Environmental Audit of Tarbela was shared with the concerned staff at the power plant to follow the recommendations given by the auditors to ensure compliance with the EMMP.

Amendment-I of the Tarbela FARA has revised the completion date of the project to December 31, 2012. Of the \$16.5 million USG funding committed for Tarbela, total disbursement as of October 2012 is \$11,249,917.

The current status of the Tarbela FARA is tabulated below:

LINE ITEM #	UNIT #	WORK ITEM DESCRIPTION	AMOUNT (USD)	CLAIMS SUBMITTED (USD)	PRESENT STATUS
1	4	Replacement of Damaged Generator Stator Windings with Class F Insulation Windings, Unit#4	3,700,000	3,700,000	Work completed and 100% amount reimbursed
2	3	Replacement of Damaged Generator Stator Windings with Class F Insulation Windings, Unit#3	3,700,000	2,849,917	Installation of windings completed on May 25, 2012. 100% amount-less spares-has been reimbursed. WAPDA has placed PO for the spares.
3	1	Replacement of Damaged Generator Stator Windings with Class F Insulation Windings, Unit#1	3,700,000	3,700,000	Work completed and 100% amount reimbursed
4	1-14	Upgrading of the SCADA System, Units 1-14	1,000,000		SCADA System was awarded in early August 2012 with a completion period of 14 months. Therefore, the testing and commissioning of this activity is scheduled to be completed in October 2013
5	1-10	Spare Seals & Guides for Relief & Bypass Valves on Turbine Side, Units 1-10	500,000	500,000	Installation completed on all units. 100% amount has been disbursed to WAPDA
6	1-10	Replacement of Electromechanical Governors by Digital Ones, Unit 1-10	3,000,000		Digital Governors were inspected by WAPDA Engineers at GE, USA and are reached at Karachi Port and expected to reach at site by mid-November The installation and commissioning of the Digital Governors on Units 1 – 10 is anticipated to be completed in June 2013
7	1-10	Replacement of Worn out Station Drainage & Dewatering Pumps, Units 1-10	400,000		Installation completed on all units.
8		Training	500,000	500,000	20 engineers from Tarbela power station have completed training on O&M in Switzerland. 100% amount disbursed to WAPDA.
<b>Total</b>			<b>16,500,000</b>	<b>11,249,917</b>	

***Gomal Zam Multipurpose Dam under Activity Agreement:***

Progress of work has been slowed down at the Gomal Zam dam due to two major reasons: (1) abduction of eight WAPDA employees working at the dam site;

(2) outstanding WAPDA payment (not part of USAID funding) of about \$9 million to the contractor for labor, engineering and security fee.

As per the G2G Agreement, it is WAPDA's responsibility for contributing all costs in excess of the award. However, considering WAPDA's limited financial resources which might delay the project completion in case the contractor's payment obligations are not met, additional funding will be required by WAPDA to complete the project. EPP has brought this issue to USAID's attention for an immediate action.

Amendment No. 1 to the Activity Agreement revised the completion date of the project (including the irrigation component) to September 30, 2013. Of the \$40 million USG funding committed for Gomal Zam (energy component), total disbursement as of October 2012 is \$36,589,000.

The status of the Gomal Zam Activity Agreement is tabulated below:

LINE ITEM #	WORK ITEM DESCRIPTION	COMPLETION STATUS	AGREEMENT AMOUNT (USD- Million)	CLAIMS SUBMITTED ( USD Million)	PRESENT STATUS
1.	Main Dam, Spillways Concrete & Related Works	88%	19.171	19.171	Work Completed. Claim of 19.171 million reimbursed
2.	Hydropower & Switchgear Component	90%	0.757	0.757	Work Completed. Claim of 0.757 million reimbursed
3	Main Dam and Spillways Concrete & Related Works	91%	5.125	5.125	Work Completed. Claim of 5.125 million reimbursed
4.	Main Dam & Spillways, Concrete & Related Works	100%	5.125	5.125	Work Completed. Claim of 5.125 million reimbursed
5.	Hydropower & Switchgear Component	50% of remaining 10% works by Dec 9, 2011	0.920	0.920	Work Completed. Claim of 0.920 million reimbursed
5a.	Hydropower & Switchgear Component	100% by Jun 30, 2012	0.920		98% completed
6.	132kV Transmission Line & related works	50%	1.0	1.0	Work Completed. Claim of 1.0 million reimbursed
7.	132kV Transmission Line and related works	50% of remaining 10% works by Dec 9, 2011	0.5	0.5	Work Completed. Claim of 0.5 million reimbursed
7a.	132kV Transmission Line and related works	100% by Apr 30, 2012	0.5		95% Completed
8a.	Completion of Mechanical testing of Dam fixture	100%	2.0	2.0	Work Completed. Claim of 2.0 million reimbursed.
8b.	Completion of Project - Filling of Reservoir, Testing, & Placement in Commercial Operation	50% by Dec 9, 2011	1.991	1.991	Work Completed. Claim of 1.991 million reimbursed
8c.	Completion of Project - Filling of Reservoir, Testing, & Placement in Commercial Operation	100% by Aug 30, 2012	1.991		Final testing depends upon completion of transmission line, switchyard and availability of water
<b>Total</b>			<b>\$40</b>	<b>\$36.589</b>	

### *Satpara Multipurpose Dam under Activity Agreement:*

In a meeting held on October 17, 2012 EPP facilitated discussion between WAPDA and USAID regarding WAPDA's request for reducing the scope of Left Bank Canal at Satpara Irrigation System due to land acquisition issues. During the meeting, WAPDA was requested to provide a comprehensive report on issue detailing the reasons, implications and efforts made so far to resolve the matter. The report was submitted to USAID on October 22, 2012 for necessary action.

Of the \$26 million USG funding committed for Satpara, total disbursement as of October 2012 is \$21,485,700. The status of Satpara Activity Agreement is tabulated below:

LINE ITEM #	WORK ITEM DESCRIPTION	COMPLETION STATUS	AGREEMENT AMOUNT ( USD - Million)	CLAIMS SUBMITTED ( USD- Million)	PRESENT STATUS
1.	Civil Works for Dam & Power House 1 & 2	94%	4.500	4.500	Work Completed. Claim of 4.5 million reimbursed
2.	Civil Works for Dam and Power House 1 & 2	100%	1.877	1.877	Work Completed. Claim of 1.877 million reimbursed
3.	Civil, Electrical and Mechanical Work for Power Houses 3 & 4	50%	5.846	5.846	Work Completed. Claim of 5.846 million reimbursed
4.	Civil, Electrical and Mechanical Work for Power Houses 3 & 4	100% by Apr 30, 2013	3.681		85% work completed and on schedule
5.	Irrigation System	78 %	2.530	2.530	Work Completed. Claim of 2.53 million reimbursed
6.	Irrigation System	89 %	2.282	2.282	Work Completed. Claim of 2.282 million reimbursed
7.	Irrigation System	90 % by Dec 09, 2011	2.0538	2.0538	Work Completed. Claim of 2.0538 million reimbursed
7a.	Irrigation System	100% by Jun 30, 2012	0.2282		99.9% work completed
8.	Consultancy Services for Satpara Dam	81%	0.0853	0.0853	Work Completed. Claim of 0.0853 million reimbursed
9.	Consultancy Services for Satpara Dam	90%	0.400	0.400	Work Completed. Claim of 0.4 million reimbursed
10.	Consultancy Services for Satpara Dam	100% by Apr 30, 2013	0.390		Ongoing till end of project
11.	Completion of Project, with Testing & Placement in Commercial Operation (less PH 3 & 4)	90% by Dec 09, 2011	1.9116	1.9116	Work Completed. Claim of 1.9116 million reimbursed by USAID
11a.	Completion of Project, with Testing & Placement in Commercial Operation (less PH 3 & 4)	100% by Jun 30, 2012	0.2124		Milestone 99.9% complete
<b>Total (million)</b>			<b>\$26.00</b>	<b>\$21.4857</b>	

## THERMAL POWER PLANTS

With total funding of \$54.231 million, as much as 700MW are estimated to be restored through the rehabilitation of three thermal power plants. The baseline condition of these plants at the time of signing of the FARA was 315 MW; however due to further deration of the plants' operating capacity, estimated gains were increased to 700 MW.

Thermal Plants under Rehabilitation	Baseline at the time of FARA signing		Present Operational Baseline	
	Capacity (MW)	MW gains	Capacity (MW)	MW gains
Muzaffargarh TPS	835	165	690	475
Jamshoro TPS	560	95	500	150
Guddu TPS	225	55	200	75
	<b>1620</b>	<b>315</b>	<b>1390</b>	<b>700</b>

### *Rehabilitation of Muzaffargarh TPS under Activity Agreement:*

The rehabilitation/replacement work to date has resulted in 280MW of capacity being restored out of total estimated gains of 475 MW. After rehabilitation of the boiler super heater tubes at units 1, 2 & 3, 230 MW of capacity has been restored and with the replacement of air pre-heater elements (intermediate and cold end) at unit 4, another 50MW was added.

During the reporting month three complete equipment (PIL Line Item# 6, 21 & 28) and one partial equipment (PIL Line Item#9) was received at site.

The Environmental Audit Report of Muzaffargarh Thermal Power Station was shared with the concerned staff at the power plant to follow the recommendations given by the auditors to ensure compliance with the EMMP.

During the reporting month, EPP certified two reimbursement claims for PIL Item#11 and 22 of \$ 890,340, and submitted to the USAID Energy Office for approval. Total amount disbursed to the GOP as of October 2012 is \$ 9,283,131<sup>1</sup>. Status of the MTPS Activity Agreement is tabulated on the next page:

<sup>1</sup> EPP has processed and submitted to USAID \$9,283,131; out of which \$1,397,280 is in process with USAID

Line Item No.	Unit No.	Work Item Description	Agreement Amount	Claims Submitted under FARA	Claims submitted under new PIL	Status
1	1,2&3	Rehabilitation of Boiler super heater tubes to overcome failure of tubes	\$4,080,000	\$4,080,000		Material received and installed at site. <b>100% Claim reimbursed from USAID</b>
2	1- 4	Special Cooling Water Treatment.	\$187,440			Tender opened for the fourth time on 26.06.2012 but no firm participated. Tender was again opened on 11.09.2012 and bids are under evaluation process.
3	1-6	Use of Fuel Oil Additive as done on Unit-4 (450 Tons).	\$921,225			Re-Tendered and opened in March 2012. Evaluation completed and LOI issued on 03.10.2012. Now file is sent to GM (thermal) office on 15.10.2012 for allocation of foreign exchange.
4	1,2&3	Replacement of Cold layer element for RAH (2 sets)	\$170,000	\$170,000		Material received and installed at site. <b>100% Claim reimbursed from USAID</b>
5	1,2&3	Modification of Excitation system (3 set)	\$191,700			Tender opened in April 2012 and Bid Evaluation is in process
6	1,2&3	Electric motors for C.T. Fan (02 No) and for GRC fan. (01 No).	\$184,245		\$184,245	PO was issued on 23.09. 2011 for electric motors while LC opened on 02.02 2012 for GRC fan. Material received at site on 18.10.2012. <b>Claim for 100% Payment reimbursed by USAID</b>
7	3	D.C. Storage batteries (01 Set).	\$60,000	\$60,000		Material received and installed at site. <b>100% Claim reimbursed from USAID</b>
8	1,2&3	220Kv circuit breaker SF6 type (06 No).	\$337,605		\$337,605*	LC established on 03.08.2012. <b>Claim for 100% payment received and forward to USAID/ENR for approval on September 25, 2012</b>
9	4	Re-blading of LP. Rotor (LP Turbine Rotor blades of row (6&7), pins & locking device).	\$787,035			PO issued and LC opened on 02.02.2012. Claim for 100% Payment (\$787,035) received but the claim was turned down because one item in PO was not included in the PIL. Now NPGCL placed PO for the dropped item and LC is also opened. NPGCL will submit documents for reimbursement
10	4	Air Pre-Heater Elements (Intermediate and Cold) 02 sets	\$255,000		\$255,000	Material received and installed at site. <b>Claim for 100% Payment reimbursed by USAID</b>
11	4	Up-grading of AVR System (01 set).	\$249,210		\$249,210*	PO issued on 20.07.2012. LC opened on 12.10.2012. <b>Claim for 100% payment received and forward to USAID/ENR for approval on October 25, 2012</b>
12	4	Replacing UPS 1&2. (01 set).	\$62,835			PO issued. LC established on 12.10.2012. Claim for 100% Payment (\$62,835) received but not forwarded to USAID/ENR due to specifications problem.
13	4	DEH (01 set).	\$319,500			Tender again opened on 18.10.2012 and is under evaluation process.

14	4	Up-grading of FSSS System (01 set).	\$138,450			Tender again opened on 18.10.2012 and is under evaluation process.
15	4	Up-grading of TSI system BNC 3300 or equivalent (Turbine Supervisory Instrument) (01 set).	\$266,250			Tender again opened on 18.10.2012 and is under evaluation process.
16	1-6	Training and software/hardware cost for CMMS and off-line efficiency monitoring system. All Units	\$1,000,000			Technical offer opened in Feb 2012 but it is now be retendered and it will open on 13.11.2012.
17	5&6	I.D. Fan Rotor/Impeller along with Housing and Dampers (04 Set).	\$625,000	\$562,500		Consignment received on 26.02.2011 and installed partially at unit 5. <b>90% claim reimbursed by USAID</b>
18	5&6	Air Pre heater Elements Hot end, intermediate & cold end layers along with seals for both units (04 Set).	\$639,000			PO issued on 20.07.2012. LC established on 12.10.2012. LC established on 12.10.2012. Claim for 100% Payment (\$639,000) received but not forwarded to USAID/ENR due to specifications problem.
19	5&6	Procurement of G.R.C. Fan Impeller/Rotor (01 Set).	\$33,548	\$33,548		Po issued and LC opened on 27.01.2012. Material received at site on 16.07.2012. <b>Claim for 100% payment reimbursed by USAID</b>
20	5&6	Procurement of Cooling Tower Fan Gear Box & its parts. (06 No. gear box).	\$236,963		\$236,963	PO issued and LC opened on 27.01.2012. Material received on site on 27.08.2012. <b>Claim for 100% payment reimbursed by USAID.</b>
21	5&6	Economizer Tubes for both Units (02 Sets)	\$2,130,000	\$2,130,000		Po issued and LC opened on 05.04.2012. received at site on 24.10.2012. <b>Claim for 100% Payment reimbursed by USAID</b>
22	5&6	IP Turbine Rotor (01 No).	\$641,130		\$641,130*	PO issued on 14.06.2012. LC established on 12.10.2012. <b>Claim for 100% payment received and forward to USAID/ENR for approval on October 25, 2012</b>
23	5&6	Replacement of Damaged Exhaust flue gas ducts of material Russian Grade Steel sheets (50 M.T), Plate Type Heat Exchanger for Inner Water Cooling System of Generator and Motor for Starting Oil Pump (Vertical) Units 5-6	\$287,550			Tender opened and LOI issued on 28.05.2012. PO issued on 29.06.2012. Cash foreign budget allocated on 06.09.2012. CRRK office requested for establishment of LC
24	5&6	Conversion of Boiler Ignition System from Natural Gas to HSD/Furnace Oil	\$277,965			Tenders opened and evaluation completed. LOI to be issued
25	5&6	Repair of winding and stator of Generators and testing	\$319,500			Draft tender documents sent to GM office on 06.08.2012. Tender to be open on 13.11.2012.
26	5&6	Hydraulic coupling of Boiler Feed Water Pumps (01 No).	\$63,900			Tender opened but only one firm participated and rate quoted by the firm is ten times higher than the estimated cost
27	5&6	Modification of Excitation System	\$166,140			Tender opened and is under evaluation
28	5&6	Procurement of 0.4KV Motors for	\$10,650	10,650		PO issued and LC opened in April 2012. Material received at site

		Cooling Towers Fan and APH 02				on 15.10.2012. <b>Claim for 100% payment reimbursed</b>
<b>29</b>	5&6	Procurement of 6.6KV Motor for C.W. Pumps, CP, ID Fan, FD Fan & BF Pumps (05 No).	\$162,945		<b>\$162,945</b>	Po issued and LC opened in April 2012. <b>Claim for 100% payment reimbursed</b>
<b>30</b>	5&6	Procurement of 6.6/0.4KV Breaker (5 No. 6KV breaker, 18Nos. 0.4Kv Breakers).	\$295,005			PO issued and LC of second PO was also opened. Claim for 100% payment will be ledged shortly.
<b>31</b>	5&6	Protection Relay for Generators.	\$29,820			Tenders opened and LOI issued on 24.02.2012. PO issued on 31.05.2012. LC established on 12.10.2012. Claim for 100% Payment received but not forwarded to USAID/ENR due to specifications problem.
<b>32</b>	5&6	MK Breakers, Seal Oil Coolers, PMG	\$169,335		<b>\$169,335*</b>	Consignment received at site. <b>Claim for 100% payment received and forwarded to USAID/ENR for approval on May 29, 2012</b>
<b>33</b>	5&6	Supply, Installation, Commissioning & Testing of complete distributed control system (DCS) including field equipment such as sensors, transmitter & actuators etc. for turbine governing system DEH-III and Boiler Turbine Auto regulation system YEWPACK-II	\$213,000			Retendered and bid evaluation in process.
<b>34</b>	5&6	Rehabilitation of Furnace safety Supervisory System (FSSS) including Furnace camera, flame monitoring & ignition system	\$266,250			Tender opened and bid evaluation in process
<b>Total</b>			<b>\$15,778,195</b>	<b>\$ 4,872,500</b>	<b>\$ 4,410,631</b>	

Claims Processed and Submitted to USAID = **\$9,283,131** (including \$1,397,280 that are under process with USAID)

\* Claims processed by EPP and under process with USAID

Summary by Status as of October 31, 2012

Description	Number	Amount
Material Received at Site	11	\$ 7,954,741
LC opened and material is awaited	9	\$ 3,204,585
PO issued and LC is awaited	1	\$ 287,550
Performance Bond received and PO is awaited	-	-
LOI Issued and Performance Bond is awaited	1	\$ 921,225
Tender/Re-Tender opened and in process	10	\$ 2,090,595
Tender/Re-Tender Awaited	2	\$ 1,319,500
<b>Total PIL Line Items</b>	<b>34</b>	<b>\$ 15,778,195</b>

***Rehabilitation of Jamshoro TPS under Activity Agreement:***

An inspection visit Jamshoro Thermal Power Station was conducted during the reporting month along with Auditor from OIG office. During the visit meetings were held with all key JTPS staff and management in which they were interviewed to verify the compliance with the technical specifications and standards. Site photographs were taken for records.

EPP verified receipt the delivery of the economizer (one of the major equipment under the Activity Agreement) and inspected the ongoing installation of the economizers. An equipment inspection report has been submitted to USAID for review Upon complete installation and commissioning the economizers will add another 90 MW to JTPS generation capacity..

The Environmental Audit Report of Jamshoro Thermal Power Station was shared with the concerned staff at the power plant to follow the recommendations given by the auditors to ensure compliance with the EMMP.

As of October 31, 2012 the total disbursement to JTPS was \$11,655,225<sup>2</sup>.



Economizer Tube Bundles received at site

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<sup>2</sup> EPP has processed and submitted to USAID \$11,655,225; out of which \$1,917,000 is in process with USAID

The status of the JTPS Activity Agreement is tabulated below:

LINE ITEM NO.	UNIT NO.	WORK ITEM DESCRIPTION	AGREEMENT AMOUNT	CLAIMS SUBMITTED ON THE BASIS OF OLD FARA	CLAIMS SUBMITTED ON THE BASIS OF NEW PIL	PRESENT STATUS
1	1	Rehabilitation of Air Pre-heater Side A&B Rotor.	\$1,672,050			PO has been issued to M/S Howden Spain on 23.08.2012. Allocation of foreign exchange received from DG (B & C) WAPDA on 06-09-2012. LC established on 18.10.2012
2	1	Replacement of Final Super Heater Coils.	\$958,500		\$958,500*	Foreign Exchange allocation received on 9.08.2012. LC established. Claim for 100% payment received and forwarded to USAID for approval on September 26, 2012
3	1	Complete replacement of Flue Gas Duct & Air Pre-heater Bottom hoppers and F.D Fan duct up to steam coil Air Heater.	\$720,000	\$720,000		The consignment received at JPCL on 16.01.2012. Installation completed. <b>100% Claims reimbursed</b>
4	1	Complete Rehabilitation of Cooling Towers.	\$500,000	\$450,000	\$50,000	Material received at Jamshoro. Installation completed. <b>100% claim reimbursed</b>
5	1	Up gradation / replacement of Auto Burner control system and Data Acquisition System.	\$300,000	\$300,000		Material received and installed at site. <b>100% Claim reimbursed by USAID.</b>
6	1	Hiring of services for major overhauling.	\$810,000			The tender opened on 20.02.2012. Only one firm M/s IED Ukraine through their local agent M/s Istil Karachi participated in the tender. The case will be finalized soon
7	1	Soot Blower Spare Parts.	\$117,150			LC opened on 28.12.2011. Material received at site on 12.05.2012 but specifications mentioned in PO are different from PIL specifications. EPP observations/recommendations sent to USAID for decision
8	1	Tube Bundles of Steam Converter, unit#1	\$250,000	\$225,000	\$25,000	Material received at site on 21.11.2011 and installed. <b>100% Claim reimbursed by USAID</b>
9	1	Spares for Oil & HSD Burners & Igniters.	\$213,000			LC Established on 28.12.2011 and material received at site but specifications mentioned in PO differs from PIL specifications. EPP Observations/recommendations sent to USAID for decision
10	1	Air Pre-heater Elements & Seal,	\$670,000	\$670,000		Material Installed at site amount reimbursed. <b>100%</b>

						Claim reimbursed by USAID.
11	1-4	Use of fuel oil additives to prevent slag formation and cooling water treatment chemicals to prevent scale buildup.	\$958,500			Tender was opened on: 17.02.2012. The case was sent to GM (Th.) for their expert opinion. It has been decided that fresh tender will be invited and opened by the office of GM Thermal Lahore
12	2-4	Replacement of H.P Heaters along with the valve and controllers including Rehabilitation of Instrument Control & Protection System.	\$3,306,825		\$3,306,825	LC Established on 30.09.2011. The material reached at site on 07.08.2012. New H.P heaters on unit 2 & 3 are completed and now new instrumentation & control is in progress. <b>100% Claim reimbursed by USAID</b>
13	2-4	Complete Rehabilitation of Cooling Towers.	\$718,875			LC established on 27.06.2012, but it was not as per PIL specifications. Claim will be submitted after procuring the remaining items. Material reached at site on 26.09.2012
14	2-4	Complete Rehabilitation of drain valves.	\$351,450			LC Established on 28.12.2011. The material reached at site on 26.06.2012 but specifications mentioned in PO differ from PIL specifications. EPP observations/recommendations sent to USAID for decision
15	2-4	Rehabilitation of soot blowing system.	\$702,900			Foreign Exchange Allocation received on 31.07.2012. LC established on 17.09.2012. Claim received but not forwarded due to specifications problem,
16	2-4	Supply, installation and commissioning of complete economizers of three units	\$3,195,000		\$3,195,000	LC has been established on 28.06.2012. First shipment consist of two economizers is received on 23.10.2012, installation on unit 2&3 is in progress. <b>Claim for 100% Payment reimbursed by USAID</b>
17	2	a. Modification / Rehabilitation of Electro Hydraulic and Mechanical Hydraulic Governing system. b. Replacement of Data Acquisition System (DAS-100), Auto Regulation System (MZ-III) and Temperature Scanners for Generator Winding Temperature, Super Heater/Re- Heater Temperature, Boiler Drum Metal Temperature, F.D, I.D Fan motor Temperature, Boiler Feed Pump Temperatures with latest Distributed Control System (DCS) c. Replacement of existing FSSS along with Furnace Flame Monitoring on one unit. Replacement of Data Acquisition System (DAS-100), Auto Regulation System (MZ-III) and Temperature Scanners for Generator Winding Temperature,	\$1,171,500			Tender opened on 17.07.2012 and technical bids are under evaluation

		Super Heater/Re- Heater Temperature, Boiler Drum Metal Temperature, F.D, I.D Fan motor Temperature, Boiler Feed Pump Temperatures with latest Distributed Control System (DCS) d. Replacement of Turbine Vibration system with Vibro-Control-4000 Schenk or equivalent				
18	2	Procurement of Boiler Feed Pump Motor Complete.	\$117,150		\$117,150	LC was opened on 28.12.2011 and the equipment reached site and is installed. <b>Claim for 100% Payment reimbursed by USAID</b>
19	3	Replacement of Final Super Heater Coils.	\$958,500		\$958,500*	Foreign Exchange Allocation received on 31.07.2012. LC established on 11.09.2012. <b>Claim for 100% payment received and submitted to USAID for approval.</b>
20	3	Three-Way valve of Oil burner.	\$200,000	\$180,000	\$20,000	Material received at JPCL on 23.11.2011 and is installed. <b>100% Claim reimbursed by USAID</b>
21	3	Spares for Overhauling of Turbine.	\$532,500			Consignment reached Jamshoro but specifications mentioned in PO are different from PIL specifications. EPP observations/recommendations sent to USAID for decision
22	4	I.D Fan Impellers.	\$479,250		\$479,250	Purchase Order issued on 16.03.2012. LC established on 28.06.2012. <b>Claim for 100% Payment reimbursed by USAID</b>
23	1-4	Off-line Efficiency Monitoring system and training.	\$426,000			Tender opened on 29.05.2012 and bids are under evaluation.
		<b>Total</b>	<b>\$19,329,150</b>	<b>\$ 2,545,000</b>	<b>\$ 9,110,225</b>	

Claims Processed and Submitted to USAID = \$ 11,655,225 (including \$1,917,000 that are under process with USAID)

\* Claims processed by EPP and under process with USAID

**Summary by Status as of October 31, 2012**

Description	Number	Amount
Material Received at Site	13	\$7,996,950
LC opened and material is awaited	6	\$7,966,200
PO issued and LC is awaited		
Performance Bond received and PO is awaited	-	-
LOI Issued and Performance Bond is awaited	-	-
Tender/Re-Tender opened and in process	4	\$3,366,000
Re-Tender Awaited		
<b>Total PIL Line Items</b>	<b>23</b>	<b>\$19,329,150</b>

### *Rehabilitation of Guddu TPS under Activity Agreement:*

With the opening of the letter of credit for Guddu a major breakthrough was achieved in the GTPS Activity Agreement through joint efforts of EPP, USAID and GOP. A disbursement of \$15.5 million was made to GTPS on October 15th.

EPP also facilitated Guddu to promptly meet the State Bank requirements of debit head/demand number to ensure the availability of \$15.513 million in Guddu's Assignment Account. This credit will also facilitate the opening of letter of credit of another \$3.6 million.

A new Activity Agreement and implementation letter was signed in April 2012 with a total funding of \$19,123,730 and the completion date was revised to June 30, 2013. Total amount disbursed as of October 2012 is \$15,512,790. The status of the Guddu TPS Activity Agreement is tabulated below:

LINE ITEM #	WORK ITEM DESCRIPTION	AGREEMENT AMOUNT	CLAIMS SUBMITTED	PRESENT STATUS
1.	Purchasing the supply of Spares / Equipment for reliability assurance (up-rating and upgrading) including MK Vle Control System for GT-7&8 and ST-05	\$8,889,555	\$8,889,555	LC opened on 28.09.2012. Claim for 100% Payment reimbursed by USAID.
2.	Replacement of existing DCS with new Mk Vle Single Platform DCS for ST-5, GTs 7 & 8	\$692,250	\$692,250	LC opened on 28.09.2012. Claim for 100% Payment reimbursed by USAID.
3.	Purchasing the Supply of 1 & 2 stage buckets and nozzles for GT-7&8	\$3,621,000	\$3,621,000	LC opened on 28.09.2012. Claim for 100% Payment reimbursed by USAID.
4.	Rehabilitation of HRSGs, Replacement of Modified Bypass Dampers, all existing expansion joints of HRSGs and Replacement of Economizer tubes and bends of HRSG for GTs 7 & 8	\$1,571,940		Two PO have been placed and one tender is recalled
5.	Rehabilitation / Replacement of Evaporative Coolers and Cooling Media of GT-7&8	\$213,000		One tender under evaluation and other is recalled due to no bid participation
6.	Inspection, testing and repair of Generators of GT-7, GT-8, ST-5 along with supply of essential spares and testing kits	\$2,212,005	\$2,212,005	LC opened on 28.09.2012. Claim for 100% Payment reimbursed by USAID.
7.	Purchasing of Control Cables, Monitoring Instruments, Motorized and pneumatic Actuators and Turbine Supervisory Instruments / Equipment for ST-5	\$97,980	\$97,980	LC opened on 28.09.2012. Claim for 100% Payment reimbursed by USAID.
8.	Application of Service Charges for complete up-rate and upgrade package of GTs and replacement of controls etc for block consisting of GT-7&8 and ST-5 on turnkey basis	\$1,826,000		Service order opened and LC will be opened soon.
<b>Total</b>		<b>\$19,123,730</b>	<b>\$15,512,790</b>	

## GENCOS PERFORMANCE EFFICIENCY IMPROVEMENT PROGRAM (PEI)

Under this program, EPP will provide technical assistance and equipment to:

- (i) improve GENCO plant operations and maintenance practices;
- (ii) incorporate heat rate improvement processes into normal plant operations;
- (iii) enhance governance and commercial processes by upgrading internal audit processes to ensure, among other things, better monitoring of business processes and timely filing to NEPRA for new tariff determinations; and
- (iv) build capacity of GENCO personnel at all levels in the companies: executive management level (BOD) and business and operations level, to ensure program sustainability post USAID support.

The PEI is expected to provide following benefits:

- A substantive improvement in the Financial Performance of the GENCOs:
  - Fuel oil savings of up to 4% (About \$50 million based on 2010-11 spending).
  - Up to 9% revenue increase from a new NEPRA-approved tariff (equivalent to \$130 million based on current approval tariff).
- 'Trickle down' benefits including:
  - More consistent payments by the GENCOs to PSO for oil, thereby alleviating disruptions in fuel supply and reduced load-shedding.
  - Recognition of concerned stakeholders that GENCO governance is improving.

### Heat Rates Testing and Equipment:

Upon GENCO Holding Company Limited's request for provision of support in Heat Rate testing of GENCOs for obtaining revised Tariff from NEPRA, EPP initiated work on the activity during the reporting month. The activity will be carried on in phases:

#### Phase I - Conduct heat rate tests which would require calibration of existing equipment

In consultation with GHCL, EPP is developing a Scope of Work for the consultancy firm which will carry out the heat rate tests. Expression of Interests has been received from four engineering consultancy firms.

#### Phase II - Installation of new equipment (flow meters)

For the procurement of Flow Meters, specifications received from all the three GENCOs were reviewed by EPP engineers. EPP team will visit the three plants in November to finalize the specifications in consultation with the GENCOs in order to promptly finalize the SOW for requesting proposals from International firms for supply of metering equipment. EPP has initiated dialogue with SGS<sup>3</sup> to engage them to conduct a quick due-diligence of the flow meters at the three GENCOs.

### *Placement of Performance Monitoring Advisors at the GENCOs:*

For improving the performance of the thermal power plants, GHCL requested EPP for additional technical support to be provided at each of the three thermal power plants (Jamshoro, Guddu and Muzaffargarh). EPP will be placing Performance Monitoring Advisors at each of the partner GENCOs. In this regard, the recruitment process was initiated in the reporting month and qualified candidates selected for the positions and will join early next month.

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<sup>3</sup> *SGS is a leading inspection, verification, testing and certification company*

# COMPONENT 2: POLICY AND REFORM

## SUPPORT TO GOVERNANCE AND REFORM TEAM (GRT), MWP

EPP is supporting the Ministry of Water and Power in implementing the GOP's Power Sector Reform Program (PSRP) in generation, transmission, fuels, policy and finance.

### Reactivation of CPPA:

During the reporting month, EPP participated in meetings held by the Special Secretary, MWP regarding CPPA reform.

**Proposed Organizational Structure:** EPP attended a meeting presided by the Special Secretary Water and Power regarding reactivation of CPPA<sup>4</sup> as an independent body. The meeting was attended by representative of ADB, Hagler Bailly, Pakistan and Deputy Secretary Power. In the meeting Hagler Bailly presented the proposed organization sector of CPPA.

**Transfer of CPPA Staff:** EPP participated in a meeting to decide on a phase-in approach for the operationalization of CPPA. EPP is facilitating MWP in highlighting key steps for the process including the identification of key personnel to be transferred immediately from Lahore to Islamabad.

### Diagnostic Study of Power Sector (2004-2012)

Upon the Joint Secretary's request, EPP provided assistance in the data collection for carrying on an analysis of the power sector since 2004. Compilation of a document entailing the analysis of different areas such as generation, distribution, recoveries, billing etc. is in progress.

### Fuel Oil Management at GENCOs

In a meeting with the Secretary, MWP EPP discussed the impacts of fuel oil on the performance of the GENCOs. A paper on the same subject was developed and presented to MWP on the request of the Special Secretary.

### Financial Analysis of Power Sector

EPP continued providing support in developing a financial model to be used by the Monitoring/Coordination and Finance Unit of MWP. Updates were made in the model to provide a framework that can enable monitoring of the status of power sector operations on timely basis, and provide indications of likely impacts based on different scenarios. A brief on the financial model was developed and shared with the Special Secretary, MWP.

EPP held a meeting with PEPCO officials and discussed the designs of the financial model.

## SUPPORT TO MINISTRY OF FINANCE

EPP team led by Manzoor Shaikh, Chief of Party held a meeting with Additional Finance Secretary (Corporate Finance), Ministry of Finance on October 15, 2012. During the meeting, the AFS(CF) was apprised about the activities being carried out by EPP regarding improvements in power sector, with emphasis on the rehabilitation work ongoing at the six signature projects.

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<sup>4</sup> CPPA is one of the main pillars of power sector reform process. CPPA is a corporate entity registered with SECP working under NTDC. Now, the ministry wants to activate it as an independent body.

EPP provided assistance to the Ministry of Finance on the following policy issues:

### **Fuel Substitution**

Provided input on the Government of Sindh proposals regarding (i) Retrofitting existing 800 MW and new 600 MW power plant at Jamshoro be designed on Thar Coal specifications; (ii) A coal off-take agreement for Thar Coal to be signed by GENCOs.

### **Allocation of Gas to Fertilizer Plants**

Reviewed the ECC summary on allocation/re-allocation of gas to fertilizer plants and highlighted that the diversion of gas presently being provided to power sector to the fertilizer sector, will add up to the cost of generation and will further increase the Tariff Differential Subsidy to be provided by Ministry of Finance.

### **Direct Supply of Bulk Power to Large Scale Consumers**

On the request of MOF, EPP reviewed Ministry of Water and Power's concept paper on direct supply of bulk power to large scale consumers by private power producers (IPPs)/ Captive Power plants, and made the recommendation that the bulk purchase of idle capacity should be confined to industry and commercial consumers only and it should be on the basis of cost recovery tariff, so that it may not add up to Tariff Differential Subsidy (TDS).

### **Grant Distribution License to TESCO**

Assisted the Ministry of Finance in preparing comments regarding grant of distribution license to TESCO. It was proposed that grant of distribution license to TESCO may be linked with its financial viability plan.

### **Purchase of Electricity by CPPA**

EPP assisted MoF in preparation of comments regarding purchase of electricity by CPPA from KESC to be generated through Bin Qasim Power Station (BQPS), Karachi.

### **Private Investment in Hydel Projects**

Assisted Ministry of Finance in preparation of their comments regarding the amendments being proposed by PPIB / Ministry of Water and Power to attract the private investment in Hydel Projects.

## **SUPPORT TO PLANNING COMMISSION & MINISTRY OF PETROLEUM & NATURAL RESOURCES**

### **Circular Debt**

During the reporting month, EPP provided support to finalize the paper on 'Power Sector Circular Debt- History and Current Situation'. Upon validation of the financial data and figures used in the report the report was submitted to USAID.

### **LNG Imports:**

The EPP expert seconded at MPNR was fully dedicated to providing technical support to the LNG Import Program. Activities undertaken during the reporting period are as follows:

- a. Held discussions with Directorate General (DG) Gas and his staff regarding the ECC decision on LNG import project including the appointment of proposed LNG consultants by SSGC or USAID.
- b. Developed an activity plan for the LNG import program over the next 2 years (as approved by ECC) in coordination with MPNR.

- c. Attended meeting on LNG imports with participation of Advisor (Minister) Petroleum, Secretary MPNR, Planning Commission, SSGC and other MPNR staff. Modalities were discussed regarding implementation of the project structure approved by ECC.
- d. Participated in meetings of the LNG Committee regarding the revised project structure for LNG imports.
- e. Participated in other internal group discussions with the DG Gas on LNG imports, and provided input on options to analyze issues, options and follow-up.

During the month, feedback was obtained on technical and financial proposals from the provisionally selected LNG consulting company and a final evaluation carried out.

#### **Oil Refining & Marketing policy:**

EPP continued internal discussions with the Director General Refineries and Financial Advisor MRNR and refinery professionals regarding amendments in the draft refining and marketing policy. Issues discussed include, quantification of the impact of incentives on the refinery's profitability. A revised draft of the policy was developed after incorporating the proposed amendments.

#### **Shale Gas**

Meetings were held with Director General Petroleum Concessions (DG PC), MPNR regarding the various options for USAID assistance in Petroleum Exploration & Production (E&P) activities and Shale Gas and the implementation of the new E&P Policy 2012.

EPP held discussions with LMKR (DGPC's resident consultant) regarding the proposed scope of work for Shale Gas.

#### **• General Support to Planning Commission**

EPP staff seconded at the Planning Commission provided support to the Commission as follows:

- a. Attended meeting at Energy Wing (EW), Planning Commission with the Chief of Party, EPP and Senior Chief EW. The scope of USAID assistance was discussed as follows:
  - Integrated Energy model.
  - Review of power sector reforms and restructuring and
  - Placing Advisors at EW and posting of Oil & Gas Advisor from MPNR to EW.
- b. A follow-up was held with the with Senior Chief, EW and the options for immediate and longer term assistance particularly related to Pakistan's Integrated Energy Model were discussed. EPP supported EW in drafting a request for assistance from USAID.
- c. Compiled brief for Deputy Chairman, Planning Commission on Thar Coal, and the issues arising on setting up the power plants powered by the Thar Coal for the Special Board Meeting of Thar Coal & Energy Board (TCEB) at Prime Minister Secretariat.
- d. Issued an advertisement for recruitment Project Director of National Trade Corridor Management Unit.
- e. Modified the Request for Proposal (RFP) advertisement for Sui Southern Gas Company Limited (SSGC) for Import of LNG and its delivery at Port Qasim, Karachi.
- f. Detailed working on estimated funds required by Government of Pakistan for the Power Sector if Government wants to keep electricity short fall at 2000, 3000, or 4000 MW.
- g. Developed a presentation for Deputy Chairman on Importance of Power Sector in the Economic Growth of Pakistan for the Meeting with Asian Development Bank (ADB), Ministry of Water and Power and Ministry of Finance hosted by Planning Commission.
- h. Finalized the speech for the Deputy Chairman, Planning Commission for the meeting with ADB, Ministry of Water and Power and Ministry of Finance arranged in Planning Commission.
- i. Modified comments of Planning Commission on Summary to ECC for preparing a pricing mechanism for CNG during upcoming winter season.

- j. Prepared a brief presentation for Secretary Finance on irregularities in the computation of Transmission and Despatch losses of the power sector, overbilling to consumer to reduce the amount of losses on DISCOs' account.
- k. Finalized a letter to Secretary, Ministry of Water and Power for finalizing requirements, procedures and other issues related to distribution of solar tubewells.
- l. Created comments of Planning Commission on Summary to ECC on LPG Production and Distribution Policy 2012.
- m. Drafted minutes of the meeting on Review of Tariff Regime of Gas Utility Company and Improvement in Changing Market Dynamics.
- n. Prepared a presentation on Energy Security for growth of economy to be delivered by Member Energy, Planning Commission at National Defense University.
- o. Set up a new computer system for Member (Energy) as his existing system broke and needed to be sent to Manufacturer for replacement of key element. Provided routine software and hardware maintenance in office of Member Energy.
- p. Additional IT support was provided in resolving issues arising in IT equipment provided in Member Energy's office. Routine updating of software and troubleshooting was also carried out as and when required.

## SUPPORT TO NTDC/NPCC UNDER POWER SECTOR REFORM PROGRAM

The EPP staff member seconded to NPCC undertook the following assignments during the month:

- a) Developed a Power Point presentation with estimates of power demand and supply (estimated generation) for each week of October, and for the next five months to be presented to the Prime Minister.
- b) Prepared an analysis of daily data on generation and demand and dispatch patterns of generators for GENCOs and IPPs and for hydropower plants, for any possible improvement and advice to the MWP on the subject.
- c) As convener of the Energy Management Committee:
  - Held two meeting with the Federal Minister, Water and Power regarding steps required for improvement of Load management and Restoration of Power sector. Discussions took place on reducing the load shedding and measures for better load management.
  - Held an orientation meeting with the newly appointed Joint Secretaries on different aspects and Issues of Power Sector, mainly the Generation, Dispatch and Distribution and the actions required for improvement.
  - Meetings were held with the Special Secretary, MWP and Additional secretary Power regarding the Load Management policy.
  - Participated in a meeting with the Secretary Water and Power along with the Chairman Energy Management Cell and by Special secretary MWP, Joint Secretary (Power) and Deputy Secretary (Power). Discussions were held on energy management issues and the improvements needed for resolving the issues.

### DISCOs Transmission Project

During the reporting month, EPP held a series of meetings at PESCO, Peshawar and NTDC Lahore regarding the DISCO Transmission Project.

In meetings held with senior management of PESCO, discussions took place the strengthening of PESCO's Transmission system by:

- repair and rehabilitation of power transformers and
- replacement of defective equipment (Circuit breakers, and
- Transformer oil sample testing to determine the condition of power

EPP Transmission experts and NTDC discussed the strategy for identification of bottleneck in PESCO Transmission System. EPP and NTDC mutually agreed to conduct a study for the purpose. The study will also focus on required VAR compensation, and modifications required in the installed equipment for its optimal performance. EPP is working on drafting Terms of Reference for the proposed study.

With regards to the repair and rehabilitation of PESCO transformers an exploratory visit was made to the Wapda Foundation Transformer Reclamation Workshop at Kotlukhat. The Workshop carries out repair and rehabilitation of the power transformers damaged throughout the country transmission network. Discussions were held with the Manager Workshop on the possibilities of repair and rehabilitation of PESCO transformers at site and in workshop; and transformer oil sample testing to determine the condition of power.

EPP conducted interviewed with potential candidates at Lahore and Islamabad for the DISCO Transmission Project.

Technical coordination meetings were also held with USAID Power Distribution Program to discuss the PESCO efforts.

### Planning for Live Line Training

To make its transmission efforts more sustainable and effective, EPP is working on developing capacity building program for the staff of various DISCOs. In this regard, EPP Transmission experts held a follow up meeting with the Chief Engineer, NTDC and continued discussion on the potential of NTDC to work in collaboration with EPP to impart Live Line training to the staff of various DISCOs.

## COMMUNICATIONS, COORDINATION AND GENERAL SUPPORT TO USAID

### Energy Sector Internship Program:

The Energy Sector Internship program activities gained momentum during the reporting month with candidates' selection being finalized for both Sindh and Khyber Pakhtunkhwa Provinces.

- **Sindh Chapter**

Placement aptitude test and interviews for the Sindh Chapter were held at the Mehran University, Jamshoro. A total of 126 candidates (116 male and 10 female) appeared for the test. Fifty seven young graduates (47 male and 10 female) were shortlisted for the interview and 28 candidates (23 male and 5 female) were selected as the first batch of interns to work at Jamshoro and Lakhra Thermal Power Stations.



Aptitude Test being conducted at Mehran University, Jamshoro on October 4, 2012

A placement ceremony was held at Jamshoro on October 24, 2012 to mark the commencement of the Energy Sector Internship Program – Sindh Chapter.



COP, Manzoor Shaikh giving internship kit to an intern at the placement ceremony



Interns at the ceremony, Jamshoro

- **KPK Chapter**

Placement aptitude test and interviews for the KPK Chapter were held at the University of Engineering and Technology, Peshawar.

A total of seventy two candidates (71 male and 1 female) appeared for the test out of which sixty seven applicants were interviewed. Finalization of the selection of candidates is ongoing.

# COMPONENT 3: NEW PROJECTS, PLANNING & DEVELOPMENT

During the month of October, EPP continued its support to USAID in its efforts to determine funding levels and schedules for the Mangla Upgrade and the Kurram Tangi Dam Projects.

## Kurram Tangi

During the reporting month, Director for Component 3 visited Peshawar and held meeting with WAPDA and FATA Secretariat (FS) to request approval and arrangements for a visit to the site of the Kurram Tangi Dam project (KTDP) – which includes the Kaitu Weir and related structures. Meetings were held with:

Mr. Rashid Bangash, General Manager (GM) North, WAPDA  
Mr. Bakhtawar Khan, Project Director (PD), KTDP, WAPDA  
Mr. Shahnawaz Khan, Ex PD, KTDP, WAPDA  
Dr. Jamal Nasir, Secretary Law & Order, FATA  
Mr. Mohammad Fahim, Ex DG PMU, FATA Roads Project

However, due to social unrest and volatile security situation in the region both WAPDA and FS regretted that travel to the region was not permitted. On EPP insistence that a visit was essential to facilitate USAID funding decisions, the GM North and PD, KTDP said they will work with the FATA Secretariat and the Political Agent (PA) North Waziristan to arrange a visit for EPP and MPP, WAPDA consultants for the project.

Progress on the project was also discussed and next steps to move forward despite the security obstacles were defined for the project which include:

- Establishing a project site office at Spin Wam for the Kaitu Weir works and
- Request the Political Agent (PA) of North Waziristan to call for and convene an appropriate Jirga (meeting of elders) for WAPDA to present to them and get consensus and agreement on starting the Kaitu Weir works.

## Mangla

The Mangla Upgrade project gained prominence during the month following the letter from USAID to Chairman WAPDA confirming funding support. Explanations, clarifications, details and briefing notes were provided to USAID as and when requested during the period.

USAID requested a review of costs and implementation plan to identify alternative funding options and develop a recommendation and justification paper for the Mangla power station refurbishment and upgrade project. EPP reviewed all available information and discussed the options and plans with WAPDA. A brief was provided to USAID.

## Support to USAID on requests for new projects

Upon USAID's request for information and details regarding water storage benefits of the Diamer Basha Dam project, EPP provided a brief, supported by credible data, on the water storage in Pakistan and the contribution that the Diamer Basha Dam would make to ensuring water security.

EPP also assisted USAID review the opportunities for hydropower development in Azad Jammu and Kashmir (AJK). Earlier, a list of twenty six hydropower projects in AJK was shared with USAID, requiring financial assistance.

An EPP expert accompanied a USG delegation to Muzaffarabad, and held meetings with the Secretary Planning & Development, Secretary Electricity and Managing Director of the AJK Hydel Board. During the meeting discussions were held on the hydro power projects in AJK and the Secretary Planning & Development gave a briefing on AJK development activities, priorities, financial constraints and difficulties. Secretary Electricity requested USAID support for four small hydro power projects and for up gradation of an 11kV line in Muzaffarabad.

The list of the twenty six project shared with USAID are primarily water storage and/or area development projects and not hydropower development investments. All 26 projects proposed by AJK would add about 140 kW at cost of Rs 5.35 billion or about \$400,000/kW. The largest capacity project adds 25 kW at cost of Rs 352 Million (\$3.7 million) or about \$148,000/kW. A “thumb rule” could justify investment of \$3,000/kW if plant factor was above 60%.

# ADMINISTRATION/MANAGEMENT: SUPPORT TO EPP

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.

## *Accounting/Finance*

Miscellaneous payments were made to vendors during the month. Payroll and financial reconciliations were completed.

A variance analysis of utility cost being incurred in the main office and the guest house during the year, as compared to the previous year, was carried out. The reasons for the variations were identified and cost reduction techniques were suggested.

During the reporting month, cost allocation with respect to the 4th quarter, 2012 (i.e. Jul-Sep, 2012) of the EPP Project to various districts within Pakistan was completed and the financial data was uploaded on USAID's PAKINFO Program.

## *Procurement*

During the reporting month, office equipment/supplies and services were procured to support EPP operations.

EPP continued monitoring project support activities at the office and guesthouses.

Cost estimation & budget both for procurement office space in Peshawar and additional staff housing in Islamabad were drawn up.

Selection of consultancy firm for the provision of technical advisory services for the LNG Import Program was finalized and a request for consent to subcontract was drawn up for USAID.

## *Logistics*

Logistical support was provided for 20 trips made by project staff. International travel for expats was arranged, and regular follow up was maintained with the Ministry of Foreign Affairs for obtaining longer term visas for the expats.

## *Human Resources*

An admin assistant was recruited during this month for providing operational support to the project reporting.

## *IT*

Staff performed trouble shooting for IT equipment in the EPP office and guesthouse and for operations at the ministries; all related matters were resolved during the month. Additional IT activities include:

- Installation and Configuration of new laptops, Multifunction Printer & scanner
- E-mail Account Management of USAID Internee Project and Printing of All incoming e-mail attachments
- Daily routine network and systems support to all project staff
- An addition of 10 mailboxes on ep-ep.com.pk E-mail domain