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ENERGY POLICY PROJECT - II MONTHLY PROGRESS REPORT

NOVEMBER 2012



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USAID/PAKISTAN: ENERGY POLICY PROJECT (EPP)

Monthly Report: November 2012

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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) with total funding of \$70.73 million.
- Two multipurpose dam completion projects (Gomal Zam and Satpara) with total funding of \$66 million.

When completed, these projects, will add more than 863MW to Pakistan's generating capacity. As of November 2012, a total of 439MW have been added to Pakistan's electricity grid through USAID funding as shown in the following table.

Table I: Planned Capacity Additions for Signature Energy Projects

| Project | Planned MW Gains per FARA | Expected Gains | MW added (as of 30 November 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 |
| Total | 430.06 | 863.06 | 439 |

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; and providing analytical support for projects such as Step I & II Due Diligence for the Kurram Tangi Project.

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 863MW. As of November 2012, 439MW 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.

Table 2: Baseline Generation for Tarbela

| 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 |
| | 505 | 80 | 457 | 128 |

Rehabilitation of Tarbela Hydropower Plant under FARA:

An inspection visit was made to the Tarbela Power Plant on November 17, 2012. During the visit, EPP reviewed progress on the completion of the rehabilitation work and urged the plant management to expedite completion of the work. Discussions were also held on the training requirements of the WAPDA staff.

During the reporting month, the complete equipment under FARA item 6 (digital governors) was received at the site. As per the FARA, the digital governors worth \$ 3 million will replace the electromechanical governors for units 1-10 and add to reliability and sustainability at the Tarbela power plant. EPP certified the



Inspection of the data monitoring at the control center, Tarbela Power Station

reimbursement claim of \$ 2.7 million for the equipment and submitted the invoice to the USAID Energy Office for approval. The remaining \$0.3 million will be processed upon installation of the equipment.

EPP coordinated and supported WAPDA in preparing responses to observations made by the GOP and USAID OIG auditors.

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 November 2012 is \$13,949,917. The current status of the Tarbela FARA is tabulated below:

Table 3: Status of Tarbela FARA

| 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 award is in final stages with a completion period of 14 months. Therefore, the testing and commissioning of this activity is anticipated to go beyond the agreement completion date of Dec 31, 2012. |
| 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 | 2,700,000* | Digital Governors were inspected by WAPDA Engineers at General Electric, USA and have reached at Karachi Port. The equipment arrived at site on 30 November. The installation and commissioning of the Digital Governors on Units 1 – 10 is anticipated to be completed in June 2013. Claim for 90% payment was received and forwarded to USAID/ENR for approval on November 20, 2012, as per the terms and conditions of FARA. |
| 7 | 1-10 | Replacement of Worn out Station Drainage & Dewatering Pumps, Units 1-10 | 400,000 | | Installation completed on all units. However, reimbursement is on hold as one small pump (required under FARA) is being procured by WAPDA to comply the specifications of FARA. |
| 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. |
| Total | | | 16,500,000 | 13,949,917 | |

¹ EPP certified claims of \$13,949,917; out of which \$2,700,000 is in process with USAID

Gomal Zam Multipurpose Dam under Activity Agreement:

Progress of work has been slowed down at the Gomal Zam Dam due to security issues and WAPDA's inability to make outstanding payments of \$10 million to the contractors. WAPDA has made a payment of \$3 million to partially settle outstanding payments. However, considering WAPDA's limited financial resources, additional funding will be required by WAPDA to complete the project. EPP has brought this issue to USAID's attention for immediate action.

To ensure environmental compliance and implementation of the EMMP (Environmental Monitoring and Mitigation Plan), the EPP contracted engineering firm carried out a site visit in the reporting month. During the audit, observations were made and issues were shared with plant management to take necessary corrective actions. The audit report has been submitted to USAID for review.

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 November 2012 is \$36,589,000. The status of the Gomal Zam Activity Agreement is tabulated below:

Table 4: Status of Gomal Zam Activity Agreement

| 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 | 100% | 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 |
| Total | | | \$40 | \$36.589 | |

Satpara Multipurpose Dam under Activity Agreement:

Major equipment for Satpara power house 3 & 4 arrived at the site. Installation/commissioning of the equipment is scheduled to be completed by April.

On the irrigation component, WAPDA submitted supporting documents to USAID with a request to curtail the scope of work on the left bank canal due to land acquisition issues. EPP facilitated a meeting between USAID and WAPDA on November 26 to discuss alternate proposals to complete the remaining irrigation work. On WAPDA's request, USAID agreed to grant an extension in time to complete the remaining work.

To ensure environmental compliance and implementation of the EMMP, the EPP contracted engineering firm carried out a site visit in the reporting month. During the audit, observations were made and issues were shared with plant management to take necessary corrective actions. The audit report has been submitted to USAID for review.

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

Table 5: Status of Satpara Activity Agreement

| 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. 100% Claim reimbursed. |
| 2. | Civil Works for Dam and Power House 1 & 2 | 100% | 1.877 | 1.877 | Work Completed. 100% Claim reimbursed |
| 3. | Civil, Electrical & Mechanical Work for Power Houses 3 & 4 | 50% | 5.846 | 5.846 | Work Completed. 100% reimbursed |
| 4. | Civil, Electrical & Mechanical Work for Power Houses 3 & 4 | 100% by Apr 30, 2013 | 3.681 | | 87% work completed and on schedule |
| 5. | Irrigation System | 78 % | 2.530 | 2.530 | Work Completed. 100% Claim reimbursed |
| 6. | Irrigation System | 89 % | 2.282 | 2.282 | Work Completed. 100% Claim reimbursed |
| 7. | Irrigation System | 90 % by Dec 09, 2011 | 2.0538 | 2.0538 | Work Completed. 100% claim reimbursed |
| 7a. | Irrigation System | 100% by Jun 30, 2012 | 0.2282 | | 99.9% work completed |
| 8. | Consultancy Services | 81% | 0.0853 | 0.0853 | Work Completed. 100% Claim reimbursed |
| 9. | Consultancy Services | 90% | 0.400 | 0.400 | Work Completed. 100% Claim reimbursed |
| 10. | Consultancy Services | 100% by Apr 30, 2013 | 0.390 | | Ongoing till project end |
| 11. | Project completion with Testing & Placement in Commercial Operation | 90% by Dec 09, 2011 | 1.9116 | 1.9116 | Work Completed. 100% Claim reimbursed |
| 11a. | Completion of Project, with Testing & Placement in Commercial Operation | 100% by Jun 30, 2012 | 0.2124 | | Milestone 99.9% complete |
| Total (million) | | | \$26.00 | \$21.4857 | |

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 315MW; however due to further deration of the plants' operating capacity, estimated gains were increased to 700MW as shown in the following table.

Table 6: Baseline Capacity at the Thermal Power Plants

| 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 |
| | 1620 | 315 | 1390 | 700 |

Rehabilitation of Muzaffargarh TPS under Activity Agreement:

During the reporting month, EPP visited the plant and inspected the major equipment that had arrived, including: economizers, ID Fans, gears and motors. An inspection report has been submitted to USAID for review.

In a meeting held with USAID on November 29, 2012, EPP provided a briefing on the GENCO's progress and on the PIL revision and also responded to audit queries. To provide support to the GENCO in revising the PIL, EPP visited Muzaffargarh on November 30. EPP will facilitate a meeting with USAID and MTPS in early December to finalize the PIL modifications. This will help expedite payment of reimbursement claims held up due to deviations from the agreement's technical specifications.

During the reporting month, EPP certified two reimbursement claims for PIL Items #9 and 12 of \$849,870, and submitted the claims to the USAID Energy Office for approval. The total amount disbursed to the GOP as of November 2012 is \$ 10,133,001².

The status of the MTPS Activity Agreement is tabulated on the next page:



Economizer Tubes in containers at MTPS

² EPP certified claims of \$10,133,001; out of which \$1,187,475 is in process with USAID

Table 7: Status of MTPS Activity Agreement

| 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. 100% Claim reimbursed |
| 2 | 1- 4 | Special Cooling Water Treatment. | \$187,440 | | | Tender opened for the 4 th 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 | | | PO issued on 23.11.2012 |
| 4 | 1,2&3 | Replacement of Cold layer element for RAH (2 sets) | \$170,000 | \$170,000 | | Material received and installed at site. 100% Claim reimbursed |
| 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. Claim for 100% Payment reimbursed |
| 7 | 3 | D.C. Storage batteries (01 Set). | \$60,000 | \$60,000 | | Material received and installed at site. 100% Claim reimbursed |
| 8 | 1,2&3 | 220Kv circuit breaker SF6 type (06 No). | \$337,605 | | \$337,605* | LC established on 03.08.2012. Claim for 100% payment received and forward to USAID/ENR for approval on September 25, 2012 |
| 9 | 4 | Re-blading of LP. Rotor (LP Turbine Rotor blades of row (6&7), pins & locking device). | \$787,035 | | \$787,035* | LC established of the second PO. Claim for 100% payment received and forwarded to USAID/ENR for approval on November 6, 2012. |
| 10 | 4 | Air Pre-Heater Elements (Intermediate and Cold) 02 sets | \$255,000 | | \$255,000 | Material received and installed at site. Claim for 100% Payment reimbursed |
| 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. Claim for 100% Payment reimbursed |
| 12 | 4 | Replacing UPS I&2. (01 set). | \$62,835 | | \$62,835* | PO issued. LC established on 12.10.2012. Claim for 100% payment received and forwarded to USAID/ENR for approval on November 19, 2012. |
| 13 | 4 | DEH (01 set). | \$319,500 | | | Tender again opened on 18.10.2012 and is under evaluation |
| 14 | 4 | Up-grading of FSSS System (01 set). | \$138,450 | | | Tender again opened on 18.10.2012 and is under evaluation |
| 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 |

| | | | | | | |
|----|-----|---|-------------|-----------|-------------|--|
| 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. 90% claim reimbursed |
| 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. Claim for 100% payment reimbursed |
| 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. Claim for 100% payment reimbursed |
| 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. Claim for 100% Payment reimbursed |
| 22 | 5&6 | IP Turbine Rotor (01 No). | \$641,130 | | \$641,130 | PO issued on 14.06.2012. LC established on 12.10.2012. Claim for 100% Payment reimbursed |
| 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 | | | LC established for one PO while LC is awaited for the second PO. Request for foreign exchange allocation for the second PO was submitted on 15.10.2012. |
| 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 opened on 28.11.2012. |
| 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 Cooling Towers Fan and APH 02 | \$10,650 | | \$10,650 | PO issued and LC opened in April 2012. Material received at site on 15.10.2012. Claim for 100% payment reimbursed |
| 29 | 5&6 | Procurement of 6.6KV Motor for C.V. Pumps, CP, ID Fan, FD Fan & BF Pumps (05 No). | \$162,945 | | \$162,945 | Po issued and LC opened in April 2012. Claim for 100% payment reimbursed |

| | | | | | | |
|--------------|-----|--|---------------------|--------------------|--------------------|---|
| 30 | 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 but specifications were not as per PIL therefore NPGCL issued an amended PO for the short items. |
| 31 | 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. |
| 32 | 5&6 | MK Breakers, Seal Oil Coolers, PMG | \$169,335 | | \$169,335 | Consignment received at site. Claim for 100% payment reimbursed |
| 33 | 5&6 | Supply, Installation, Commissioning & Testing of complete distributed control system 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. |
| 34 | 5&6 | Rehabilitation of Furnace safety Supervisory System including Furnace camera, flame monitoring & ignition system | \$266,250 | | | Tender opened and bid evaluation in process |
| Total | | | \$15,778,195 | \$4,872,500 | \$5,260,501 | |

Claims Processed and Submitted to USAID = **\$10,133,001** (including * \$1,187,475 that are under process with USAID)

Table 8: Summary of Status of Muzaffargarh TPS as of November 30, 2012

| Description | Number | PIL Item # | Amount |
|---|-----------|------------------------------|---------------------|
| Material Received at Site | 11 | 1,4,6,7,10,17,19,20,21,28,32 | \$7,954,741 |
| LC opened and material is awaited | 9 | 8,9,11,12,18,22,29,30,31 | \$3,204,585 |
| PO issued and LC is awaited | 2 | 3, 23 | \$1,208,775 |
| Performance Bond received and PO is awaited | - | - | - |
| LOI Issued and Performance Bond is awaited | - | - | - |
| Tender/Re-Tender opened and in process | 10 | 2,5,13,14,15,24,26,27,33,34 | \$2,090,595 |
| Tender/Re-Tender Awaited | 2 | 16,25 | \$1,319,500 |
| Total PIL Line Items | 34 | | \$15,778,195 |

LC opened for PIL Item # 18, 30, 31 but their specifications are not as per PIL therefore claim will be processed on procurement of remaining items

Rehabilitation of Jamshoro TPS under Activity Agreement:

The Installation of the economizers is in progress and upon complete installation and commissioning the economizers will add another 90MW to the JTPS' generating capacity.

During the reporting month, EPP coordinated and supported JTPS in preparing responses to observations made by the GOP and OIG auditors. In addition, EPP responded to several queries from USAID OIG Auditors.

EPP certified a reimbursement claim of \$ 1,672,050 for PIL Item#1: rehabilitation of air pre-heater side A & B rotor for Unit 1 and submitted the claim to the USAID Energy Office for approval. The total amount disbursed to the GOP as of November 2012 is \$13,327,275³.



Installation of economizer under progress at JTPS

³ EPP has processed and submitted to USAID \$13,327,275; out of which \$3,589,050 is in process with USAID

Table 8: Status of JTPS Activity Agreement

| 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 | | \$1,672,050* | LC established on 18.10.2012. Claim for 100% payment received and forwarded to USAID for approval on November 21, 2012 |
| 2 | 1 | Replacement of Final Super Heater Coils. | \$958,500 | | \$958,500* | Foreign Exchange allocation received on 9.08.2012. LC established on 17.09.2012. 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. 100% Claims reimbursed |
| 4 | 1 | Complete Rehabilitation of Cooling Towers. | \$500,000 | \$450,000 | \$50,000 | Material received at Jamshoro. Installation completed. 100% claim reimbursed |
| 5 | 1 | Up gradation / replacement of Auto Burner control system and Data Acquisition System. | \$300,000 | \$300,000 | | Material received and installed at site. 100% Claim reimbursed |
| 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 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. 100% Claim reimbursed |
| 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 sent to USAID for decision |
| 10 | 1 | Air Pre-heater Elements & Seal, | \$670,000 | \$670,000 | | Material Installed at site amount reimbursed. 100% Claim reimbursed. |
| 11 | 1-4 | Use of fuel oil additives to prevent slag formation | \$958,500 | | | Tender was opened on: 17.02.2012. The case was sent |

| | | | | | | |
|----|-----|--|-------------|--|-------------|---|
| | | and cooling water treatment chemicals to prevent scale buildup. | | | | 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. 100% Claim reimbursed |
| 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 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. Claim for 100% Payment reimbursed by USAID |
| 17 | 2 | <p>a. Modification / Rehabilitation of Electro Hydraulic and Mechanical Hydraulic Governing system.</p> <p>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)</p> <p>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, Super Heater/Re- Heater Temperature, Boiler Drum Metal Temperature, F.D, I.D Fan motor Temperature, Boiler Feed Pump Temperatures</p> | \$1,171,500 | | | Tender opened on 17.07.2012 and technical bids are under evaluation |

| | | | | | | |
|----|-----|--|---------------------|--------------------|---------------------|--|
| | | with latest Distributed Control System 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. Claim for 100% Payment reimbursed |
| 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. Claim for 100% payment received and submitted to USAID for approval. |
| 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. 100% Claim reimbursed |
| 21 | 3 | Spares for Overhauling of Turbine. | \$532,500 | | | Consignment reached Jamshoro but specifications mentioned in PO are different from PIL specifications. EPP observations 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. Claim for 100% Payment reimbursed |
| 23 | 1-4 | Off-line Efficiency Monitoring system and training. | \$426,000 | | | Tender opened on 29.05.2012 and bids are under evaluation. |
| | | Total | \$19,329,150 | \$2,545,000 | \$10,782,275 | |

Claims Processed and Submitted to USAID = \$13,327,275 (including \$3,589,050 that are under process with USAID)

* Claims processed by EPP and under process with USAID

Table 9: Summary of Status of Jamshoro TPS as of November 30, 2012

| Description | Number | PIL Item # | Amount |
|---|-----------|----------------------------------|---------------------|
| Material Received at Site | 13 | 3,4,5,7,8,9,10,12,13,14,18,20,21 | \$7,996,950 |
| LC opened and material is awaited | 6 | 1,2,15,16,19,22 | \$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 | 6,11,17,23 | \$3,366,000 |
| Tender/Re-Tender Awaited | - | - | - |
| Total PIL Line Items | 23 | | \$19,329,150 |

LC opened for PIL Item # 7,9,13,14,15,21 but their specifications are not as per PIL therefore claim will be processed once the procurement of remaining items is complete

Rehabilitation of Guddu TPS under Activity Agreement:

A new Activity Agreement and implementation letter were signed in April 2012 with a total funding of \$19,123,730 and the completion date was revised to June 30, 2013. Work under the Guddu Activity Agreement is steadily picking up pace after the opening of a letter of credit through joint efforts of EPP, USAID and GOP.

The total amount disbursed as of November 2012 is \$15,512,790. The status of the Guddu TPS Activity Agreement is tabulated below:

Table 10: Status of GTPS Activity Agreement

| 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. |
| Total | | \$19,123,730 | \$15,512,790 | |

Heat Rates Testing and Equipment:

Upon GENCO Holding Company Limited's request for support in performing heat rate tests of the GENCOs in order to obtain a revised tariff from NEPRA, EPP initiated work on the activity in October 2012. The activity is being carried out in phases:

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

- **Calibration of meters**

EPP is in contact various reputed firms for hiring as a consultant to calibrate the equipment at the GENCOs before the heat rate tests could be carried out. During the reporting month, EPP supported site assessments of meters at the three GENCOs.

- **Heat rate and dependable capacity testing**

Four internationally reputed firms have provided an EOI. Subsequently an RFP is being prepared. The CEO (GHCL) has recommended using local procurement to avoid time delays

Phase II - Installation of new equipment (flow meters)

An Expression of Interest (EOI) is being requested from reputed firms for the procurement of flow meters

Placement of Performance Monitoring Advisors at the GENCOs:

For improving the performance of the thermal power plants, GHCL requested EPP to provide additional technical support at each of the three thermal power plants (Jamshoro, Guddu and Muzaffargarh). In response, EPP will be placing performance monitoring advisors at each of the partner GENCOs.

In this regard, a recruitment process has been initiated. A performance monitoring expert has been placed at Guddu Thermal power station and is engaged in data collection and primarily preparing/training of the Guddu plant operators for carrying out of the heat rate and dependable capacity tests. For Muzaffargarh and Jamshoro, shortlisted candidates have been proposed to the CEO (GHCL) for review.

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.

EPP facilitated a meeting between USAID and the Secretary, MWP on November 6, 2012. During the meeting, the Secretary, MWP was briefed about USAID's energy portfolio in Pakistan and the support provided to the Government of Pakistan in mitigating the energy crisis. To ensure strong coordination among USAID and MWP, the Secretary MWP asked EPP seconded staff to participate in the executive control meetings taking place via Skype with the DISCOs and NPCC.

CPPA Payment Model

Upon a request from the Special Secretary MWP for support in improving the financial management of CPPA, EPP visited CPPA/NTDC at Lahore and conducted a series of meetings with the management. EPP collected and reconciled data related to funds transferred by the DISCOs to CPPA and payments made to IPPs/fuel suppliers and WAPDA.

Based upon discussions in the meeting, EPP developed a payment model incorporating daily payment criteria for all power sector entities. The first draft of this model, which establishes a daily payment mechanism based on weighted averages of outstanding balances due, current invoices and an NEO has been submitted to MWP for review.

Hydropower Projects Fund

A working paper for the creation of a Hydro Energy Development Fund was prepared and submitted to the Special Secretary, MWP. The working paper encompasses background information on funds previously created by the Government of Pakistan in the mid-80s and 90s. The paper also highlights steps required to be taken for creation of this fund. Upon MWP's decision, the working paper was shared with the provincial ministries for review.

EPP conducted a meeting with the Managing Director Private Power Infrastructure Board (PPIB) to obtain input regarding creation of an Energy Development Fund. Information was collected regarding the Private Sector Energy Development Fund (PSEDF), which was created earlier by the GOP with the help of the World Bank.

In addition, the Special Secretary requested EPP to develop a financial model to depict the structuring of this fund and estimate its costs, lending rates, and rates of return that will be required to be paid out. EPP is working on establishing a baseline for the model by comparing case studies of similar funds set-up internationally.

Smart Metering Systems

The Secretary, MWP has expressed interest to have all common points of delivery along the grid to employ smart meters that relay real time data on the amount of energy generated, transmitted, distributed and sold. EPP is reviewing the current status of the metering at these points of delivery,

particularly at the GENCOs, and is exploring the potential role EPP can play in facilitating metering at the GENCOs.

SUPPORT TO MINISTRY OF FINANCE

Tasks undertaken by EPP seconded staff at the Ministry of Finance include the following:

- Facilitated the Ministry of Finance in preparing comments to be sent to NEPRA on the application by TESCO for grant of a distribution license. The ministry was advised that issuance of the license to TESCO should be linked with the economic/financial viability of the company. Therefore, TESCO should prepare a business plan that would indicate the time lines for improving its cost recovery. TESCO should also be advised to separate its 17 common feeders with PESCO.
- Assisted MOF in preparing a summary for the ECC, regarding the subsidy to be paid to tube well consumers in Balochistan.

SUPPORT TO PLANNING COMMISSION & MINISTRY OF PETROLEUM & NATURAL RESOURCES

Circular Debt

During the reporting month, EPP and PDP incorporated changes suggested by USAID in the paper on circular debt. A joint meeting was held with USAID and PDP to finalize revisions and to build a consensus on proposed changes.

LNG Imports:

The EPP expert, supported by LNG staff, seconded at MPNR was fully dedicated to providing technical support to the LNG Import Program:

- Followed up on a letter from the Mission Director USAID to the Advisor (Minister) Petroleum regarding appointment of LNG consultants by USAID.
- Participated in meetings at MPNR to review/finalize the letter from MPNR to USAID regarding the appointment of an LNG consulting company. The letter was finalized and received by USAID.
- Participated in follow-up meetings with SSGCL and QED Gas (LNG consulting company) to review and agree on next steps for implementation and contract finalization. Draft delivery orders were prepared and circulated for review and input.

Oil Refining & Marketing policy:

During the reporting month, EPP along with the Financial Advisor and Director General (DG), Ministry of Petroleum and Natural Resources continued a detailed review of the draft refining and marketing policy and held discussions on comments received from oil refineries. Further meetings will be held with each refinery to discuss amendments to the draft policy.

Shale Gas:

Meetings were held with the Director General Petroleum Concessions (DG PC), MPNR to finalize the TORs for USAID assistance in petroleum Exploration and Production (E&P) activities and shale gas.

Upon finalization of the TORs, a formal offer of USAID assistance was made to DGPC and approved by the Secretary MPNR.

EPP held discussions with LMKR (DGPC's resident consultant) regarding the proposed scope of work for shale gas. A Request for Proposal (RFP) was shared with LMKR soliciting their proposal.

General Support to Planning Commission

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

- a) Collected detailed information from Sui Northern Gas Pipeline Limited (SNGPL) and Sui Southern Gas Company (SSGC) regarding their respective gas sale revenues for FY 2011-12 to all sectors including domestic, industrial and the power sector.
- b) Organized a meeting of WAPDA, Ministry of Finance and Planning Commission to discuss funding of upcoming WAPDA projects.
- c) Developed a concept paper on unbundling of activities for transportation and marketing of natural gas in the country.
- d) Prepared a power point presentation for the Member (Energy) on power sector issues and their impact on the economy of the country
- e) Developed a comparison and summary of the Notified and Determined Tariff issued by the DISCOs
- f) Communicated with security officials of Khyber Pakhtunkhwa for the establishment of a police post for security of NTDC installations in Mardan, Khyber Pakhtunkhwa.
- g) Communicated with the Ministry of Water and Power for forwarding of PC-I to the Planning Commission for developing an MIS system for the GENCOs, DISCOs and NTDC.
- h) Provided IT and system support to the Deputy Chairman's Office to carry out routine activities.
- i) Routine hardware/software maintenance was carried out and technical assistance provided on hardware issues arising at the office of the Member Energy and the Deputy Chairman's Office.

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 November, 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 the GENCOs and IPPs and for hydropower plants for any possible improvement and advice to the MWP on the subject.

POWER TRANSMISSION ACTIVITIES

EPP is focusing on strengthening the power transmission network and on capacity building for power sector entities involved in transmission. The following activities were undertaken during the month:

Live Line Training

EPP developed the Scope of Work for conducting the live line training. Coordination meetings were held with the Chief Engineer, TSG regarding the training schedule and curriculum. Selection of trainees from PESCO is in process.

Power Import from Regional Countries

A Scope of Work was drafted for the import of power from regional countries.

PESCO Turn Around DISCO



EPP meeting with CEO PESCO and senior management at Peshawar

At a meeting held at the PESCO office, EPP gave a presentation on the planned system improvement of the transmission network for PESCO. Discussions revolved around EPP's planned activities, support required from PESCO, and identification of areas within PESCO that require

immediate support. EPP also requested PESCO for an allotment of office space to EPP within its premises. A formal letter has been sent to the CEO, PESCO and a response is awaited.

A visit was made to the Rehman Baba Grid Station Peshawar to explore the location for setting up a maintenance workshop. The location was found to be easily accessible and PESCO expressed its agreement for the suitability of the location.

- **Telemetry System**

To strengthen PESCO's transmission network, EPP is exploring opportunities for a cost effective mechanism to aid in economic power dispatch. In this regard, exploratory meetings and visits were conducted with PESCO and IESCO to learn about their network. IESCO being the only DISCO to have a telemetry system implemented on its network is serving as an example for EPP.

In this regard, EPP held brainstorming sessions with IESCO and PESCO on the use of the telemetry system and its benefits over the SCADA system presently being used by PESCO. EPP and PESCO were given a demonstration of the system by IESCO and provided details about its operation. Discussions revolved around deployment of the system, probable hazards, operating costs and the cost effectiveness of the telemetry system.

A meeting was also held with the Pakistan Meter Factory, the vendors for IESCO to learn more about the telemetry solution

- **Reactive Power Compensation Study**

EPP contracted with PPI to conduct a study on Reactive Power Compensation

Power Planning/NTDC Capacity Building

The EPP team led by Chief of Party, Manzoor Shaikh held a meeting with the Managing Director, NTDC. The MD NTDC was briefed on activities of EPP and the support provided to NTDC.

Discussions revolved around conducting a technical audit of NTDC, support to NPCC, and implementation of NTDC business plan.

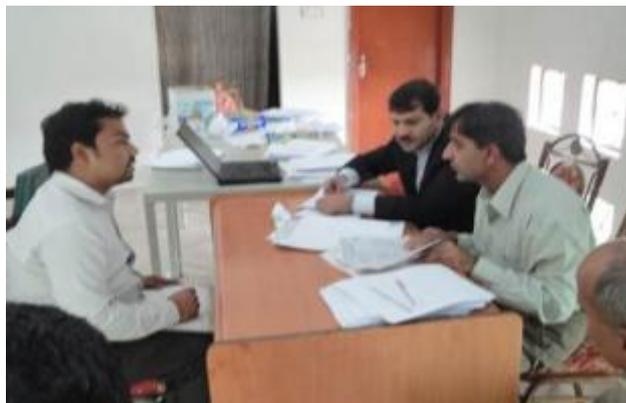
ENERGY SECTOR INTERSHIP PROGRAM

Internship of 28 interns under Sindh Chapter- Phase I commenced from November 1 at the Jamshoro and Lakhra Thermal Power Stations. Regular coordination is being maintained with the interns and their supervisors to monitor progress of the interns and facilitate smooth implementation of the internship program.

During the reporting month, activities were undertaken to launch Phase II of the Sindh Chapter of the Internship Program to work at the Guddu Thermal Power Station. In this regard, a call for applications was advertised and a total of 1,035 applications were received.

123 applicants (including 4 female candidates) appeared for the selection test at Quaid-e-Awam University, Nawabshah. 45 candidates were shortlisted and interviewed.

Fifteen interns, including two female candidates were selected and internship contracts were signed. The selected candidates hail from different areas of Sindh, including Sanghar, Khairpur, Hyderabad, Tharparkar, Kashmore, Larkana, Ghotki and Mirpurkhas. The internship program at GTPS is expected to start during December.



Candidates during the selection test and interview at Quaid-e- Awam University, Nawabshah

COMPONENT 3: NEW PROJECTS, PLANNING & DEVELOPMENT

During the month of November, EPP continued its support to USAID in its efforts to determine funding levels and schedules for various hydroelectric power projects.

Mangla

EPP continued its Step II Due Diligence effort for Mangla and held a series of meetings with WAPDA both at Lahore and Islamabad to assess the latest plans for the almost \$400 million Mangla Upgrade Project planned to be executed over the coming ten years.

WAPDA submitted a PC I (project description and budget document on the Planning Commission's specified format) and a revised schedule with expected implementation costs to USAID for review. Upon USAID's directives, EPP reviewed the documents and identified several inconsistencies between the figures and budgets for various activities and requested WAPDA to resolve them.

EPP held discussions on technical and implementation requirements, budget estimates, and allocation of costs with WAPDA and suggested that WAPDA adopt an alternative approach to reprioritize their replacement plans and strengthen the procurement strategy to derive maximum benefit from the USAID grant allocation for the project.

EPP also responded to various queries and clarifications from USAID regarding the Mangla project and provided technical advice for funding and implementation options for their consideration.

EPP's efforts regarding the Mangla Upgrade Project gained recognition with the US Government formally announcing its support for the refurbishment and upgrade of the Mangla Power Station. A high level US delegation led by Ambassador, Richard Olson, visited the Mangla Dam and Power Plant on November along with the WAPDA Chairman and senior staff. Ambassador Olson pledged \$150 million for rehabilitation of the Mangla Power Station, which will increase the plant's output from 1,000MW to 1,210MW and help the plant to operate efficiently for another 40 years.



Ambassador Olson shaking hands with Chairman WAPDA after unveiling the plaque at Mangla Power Station

Kurram Tangi

USAID and WAPDA have agreed to start with a 'stand-alone' portion of the project comprising the Kaitu Weir Dam, the two canals leading from it to the Spaira Ragma and Sheratalla plants, and two associated powerhouses with 18.5MW capacity, all of which are expected to cost about \$93 million.

The GM North, WAPDA, who is responsible for the Kurram Tangi Dam project, shared a “Road Map” for identifying the first and subsequent steps needed with a time frame and cost estimates to start work on the Kaitu Weir project. This road map is under review and will be discussed at meetings with WAPDA. WAPDA is awaiting a decision from USAID to move forward with the project

Support to USAID on requests for new projects

EPP responded to various queries, clarifications and explanations sought by USAID regarding the status of the Diamer Basha Dam Project and WAPDA activity on the project.

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.

EPP continued with the variance analysis of utility cost incurred in the main office and the guest house during the year, as compared to the previous year. The reasons for the variations were identified and cost reduction techniques were suggested.

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 guesthouse.

A consultancy contract was issued to PPI for conducting a Reactive Power Compensation Study for PESCO. A draft RFP on the refurbishment of power transformers was developed and shared with USAID for approval. An RFP for oil testing on 168 power transformers at PTESU also was made and issued to FWO. A request for proposal regarding assessment of resources, technology and upstream costs in Pakistan was issued to LMKR.

Cost estimation and budget both for procurement of office space in Peshawar and additional staff housing in Islamabad were drawn up. 4/4 vehicles were also hired for the Peshawar Office.

Logistics

Logistical support was provided for 29 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

During the reporting month, six new staff members were added to the project, including:

- A finance assistant.
- Four staff members were hired for the transmission related activities as follows:
 - Project Technical Assistant.
 - Live Line Coordinator.
 - Transmission Engineer.
 - Protection Engineer.
- An intern to provide operational support to the Energy Sector Internship Program.

EPP established a hiring/recruitment tracking system that assists in managing and updating the recruitment of employees for the project.

IT

EPP 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 eight new laptops.
- E-mail account management of the USAID Intern 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.
- Issuance of a Request for Quotation (RFQ) for procurement of a Quick Books Application Internet Package to upgrade and troubleshoot wireless access points was carried out at the guest house.
- Daily routine network and systems (hardware/software) support to all project staff.