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# USAID ENERGY POLICY PROGRAM

## MONTHLY REPORT APRIL 2013 REHABILITATION OF TARBELA HYDROPOWER PLANT

USAID: TARBELA FIXED AMOUNT REIMBURSEMENT AGREEMENT

**May 2013**

*This program is made possible by the support of the American people through the United States Agency for International Development (USAID)*

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## REHABILITATION OF TARBELA HYDROPOWER PLANT

USAID: TARBELA FIXED AMOUNT REIMBURSEMENT AGREEMENT

Contract No: AID-EPP-I-00-03-00004  
Task Order 08

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### **DISCLAIMER**

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

The rehabilitation work to date has resulted in the restoration of 128 MW at Tarbela Hydropower plant. Replacement of generator windings at units 1, 3 & 4, and installation of spare seals, guides and pumps is complete. The power generation target of 128 MW set in the FARA has been achieved.

EPP conducted a field visit to Tarbela hydro power plant on April 19, 2013 to monitor the progress of rehabilitation works, in particular inspection of new digital governors under installation, and to discuss the challenges faced in the completion of remaining items. During the visit tarbela power station was generating 1422 MW at a reservoir level of 1396 ft. The temperature of the replaced windings at unit 1, 3 & 4 were also within the acceptable limits and each unit was generating 112 MW.



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 works are anticipated to go beyond the completion date of December 2013 due to the delay in the manufacturing and procurement.

In this regard, WAPDA submitted a request to USAID for (1) extension in project completion date and (2) release of payment for remaining FARA items upon opening of letter of credit. The request is being considered by USAID.

WAPDA has also requested USAID for an additional funding of \$25 million for procurement of equipment that will reduce outages at Tarbela, increase reliability and sustainability of the operations. An additional 20MW gain is also anticipated with the equipment replacement. The specifications/milestone documents have been submitted to USAID for review. On request of USAID, EPP also drafted PIL ‘Activity Description’ for the additional funding, and submitted to USAID for review. EPP also submitted comments on the draft Initial Environmental Examination (IEE) on request of USAID.

For the implementation of the environmental compliance of EMMP, a follow up visit to Tarbela Dam was conducted by EPP sub-contracted environmental firm<sup>1</sup>. A visit report is being prepared and observations made will be shared with WAPDA/Tarbela for necessary corrective actions, and will also be submitted to USAID for review.

Of the \$16.5 million USG funding committed for Tarbela, total disbursement as of April 2013 has reached to \$13,949,917. The detailed 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 is in process of placing the 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 WAPDA requested the Supplier (ABB) to furnish performance guarantee to finalize the contract.
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 reimbursed.

<sup>1</sup> Hagler Bailey is an engineering firm contracted by EPP to ensure the environmental compliance and implementation of the Environmental Mitigation and Monitoring Plan (EMMP) of the projects FARAs and Activity Agreements

LINE ITEM #	UNIT #	WORK ITEM DESCRIPTION	AMOUNT (USD)	CLAIMS SUBMITTED (USD)	PRESENT STATUS
6	I-10	Replacement of Electromechanical Governors by Digital Ones, Unit I-10	3,000,000	2,700,000	The equipment arrived at site on 30 November. The installation on unit 9 is in progress and expected to be completed in May 2013 .90% amount reimbursed.
7	I-10	Replacement of Worn out Station Drainage & Dewatering Pumps, Units I-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.
<b>Total</b>			<b>16,500,000</b>	<b>13,949,917</b>	

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