



USAID
FROM THE AMERICAN PEOPLE

PAKISTAN

MONTHLY REPORT
September 2012

**USAID: TARBELA FIXED AMOUNT
REIMBURSEMENT AGREEMENT**

REHABILITATION OF TARBELA HYDRO- POWER PLANT

TARBELA DAM

Tehsil and District, SWABI, N.W.F.P, Pakistan

AEAI

House: 4, Street: 88, Sector: G-6/3
Ataturk Avenue, Islamabad
Phone +92-51-8357072 • Fax +92-51-8357071



ADVANCED
ENGINEERING
ASSOCIATES
INTERNATIONAL

CONTRACTOR OF USAID PAKISTAN

DISCLAIMER

This publication was produced for review by the United States Agency for International Development. It was prepared by Advanced Engineering Associates International (AEAI), contractor of the USAID/Pakistan Energy Policy Project. The authors' views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

Rehabilitation of Tarbela Hydropower Plant under FARA:

During the month of September, the installation of six drainage and dewatering pumps was completed. EPP experts physically inspected the installed six high capacity station drainage and dewatering pumps for Units 1-10 and reviewed their shipping documents. It was observed that one low capacity tank dewatering pump was not procured, which was reported to WAPDA/Tarbela. In this regard, a meeting was held on September 12, 2012 with USAID and WAPDA and it was agreed that WAPDA will procure the remaining pump before invoicing for \$400,000 as per the FARA.



Drainage and dewatering pump installed at Unit 1

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 that the completion date of December 2012 due to the delay in the procurement of Digital Governors and SCADA System.

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 September 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
-------------	--------	-----------------------	--------------	------------------------	----------------

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 scheduled for shipment in October 2012(the initial delivery date was August 2012). 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.
Total			16,500,000	11,249,917	