



USAID
FROM THE AMERICAN PEOPLE



USAID ENERGY POLICY PROGRAM

MONTHLY REPORT MAY 2011

REPAIR AND REHABILITATION OF
MUZAFFARGARH THERMAL POWER STATION
USAID: NPGCL FIXED AMOUNT REIMBURSEMENT AGREEMENT
NO. 391-MUZ-FARA-004-00

June 2011

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

USAID ENERGY POLICY PROGRAM

MONTHLY REPORT

MAY 2011

REPAIR AND REHABILITATION OF MUZAFFARGARH THERMAL POWER STATION

USAID: NPGCL FIXED AMOUNT REIMBURSEMENT AGREEMENT
NO. 391-MUZ-FARA-004-00

Contract No: AID-EPP-I-00-03-00004

Order No: AID-391-TO-12-00002

©USAID Energy Policy Program
House 4, Street 88, Sector G-6/3
Ataturk Avenue, Islamabad, Pakistan
Tel: +92 (51) 835 7072, Fax: +92 (51) 835 7071

DISCLAIMER

The contents of this document are the sole responsibility of Advanced Engineering Associates International, Inc. (AEAI) and do not necessarily reflect the views of USAID or the United States Government.

CONTENTS

- [1. SUMMARY](#) 3
- [2. PROGRESS ON MONITORING AND SUPPORT](#) 5
- [3. CRITICAL ISSUES AND USAID/AEAI SUPPORT REQUIRED](#) 9
- [4. ACTION ITEMS FOR NEXT MONTH](#) 9

1. SUMMARY

The report presents the progress on the repair and rehabilitation of Northern Power Company Limited (NPGCL) for the months of May 2011. A visit to Tarbela Hydro Power Plant was conducted

on May 17, 2011 by a Senior Energy Expert from AEAI to verify the completion of works and current status of the Repair and Rehabilitation of Muzaffargarh Power Plant.

After a slow start, procurement of required items are accelerating and are expected to accelerate more following an amendment to the FARA that will make the GENCO fully responsible for procurement. Rehabilitation work of the Boiler super heater tubes of Unit 1, 2 & 3 has been completed on Apr 23, 2011. This gives a gain of 60 MW as before the rehabilitation the unit was running at 120 MW but now unit is sharing 180MW with the system.

A first reimbursement \$167,616 was paid in February 2011. A second reimbursement of \$3,734,384 was approved by USAID/ENR on 2/4/11 and disbursed on March 29, 2011, while the third reimbursement of \$562,500 was approved by USAID/ENR on 3/29/11 and has been deposited in GENCO's account on April 27, 2011. However total reimbursement claim of \$4,464,500 have been submitted and reimbursed in GENCO's account.

There are sixteen items which are in line for the approval from GM (Thermal) and Purchase order will be issued after that approval. The overall schedule planned for procurement and installation of equipment at NPGCL has now slipped the FARA completion date of Nov 30, 2011 by 4-5 months.

2. PROGRESS ON MONITORING AND SUPPORT

Lot no.	Description of Work	COMPLETION DATES				Remarks
		FARA	NGPCL Scheduled	Last Month	Current Month	
1	Rehabilitation of Boiler Super Heater Tubes to Overcome Failure of Tubes Units 1,2&3	1-Jun-2011	21-May-2011	31-Oct-2011	31-Oct-2011	Equipment received at site in November 2010. Installation/Commissioning and Testing will be completed by the Oct 30, 2011. Reimbursement Processed and received by NPGCL for US\$ 3,672,000 on March 29, 2011.
2	Replacement of Cold layer element for RAH for units 2&3 (item # 4)	30-Nov-2010	31-Aug-2011	30-Sep-10	30-Sep-10	Equipment received at site on July 9, 2010 and installed and tested in Sept 2010. Reimbursement processed and received by NPGCL for US\$170,000.
3	Air Pre-Heater Elements (Intermediate) 2 sets for Unit 4 (item # 11)	30-Sep-2010	3-Feb-2011	31-Aug-2011	31-Aug-2011	PO placed on Nov 29, 2010 and L/C opened on Feb 8, 2011.
4	I.D. Fan Rotor/Impeller along with Housing and Dampers (04 Set). Units 5&6 (item # 20)	31-Dec-2010	21-Jan-2011	30-Jun-2011	01-Jul-2011	PO placed on June 21, 2010 and Letter of Credit established in Aug 2010. Material received at site on Feb 23, 2011. Reimbursement processed and received by NPGCL for US\$562,500.
5	MK Breakers, Seal Oil Coolers, PMG. Units 5&6 (item # 37)	28-Feb-2011	11-Jan-2011	1-May-2011	31-Aug-2011	Consignment of 2PO's is received and one is remaining.
Lot no.	Description of Work	COMPLETION DATES				Remarks
		FARA	NGPCL Scheduled	Last Month	Current Month	
6	Special Cooling Water Treatment. Units 1,2&3	31-Dec-2010	29-Jan-2011	31-Oct-2011	Mar 01, 2012	Tenders to be opened on Jul 01, 2011.
	Special Cooling Water Treatment as being used at IPP's. Unit 4	15-Nov-2010				
	Special Cooling Water Treatment as proposed for Units 5&6	15-Nov-2010				

7	Use of Fuel Oil Additive as on Unit-4 (200 Tons). Units 1,2&3	31-Dec-2010	6-Feb-2011	31-Oct-2011	Jan 31, 2012	Tenders to be opened on Jun 17, 2011.
	Use of Fuel Oil Additive (100 Ton). Unit 4	31-Dec-2010	6-Feb-2011			
	Use of Fuel Oil Additive (150 Ton). Units 5&6	15-Nov-2010	6-Feb-2011			
8	Electric motor for C.T. Fan (02 No). Units 1,2&3	1-Apr-2011	8-Apr-2011	8-Sep-2011	01-Mar-2012	Tender opened on July 22, 2010 was held up due to the non-certification of CCC. Certain clarification have been sought from the supplier.
	Electric motor for GRC fan. (01 No). Units 1,2&3	1-Feb-2011			31-Jan-2012	
9	Re-blading of LP. Rotor (LP Turbine Rotor blades of row 6&7, pins & locking device) Item # 10	1-Sep-2011	1-May-2011	1-Sep-2011	31-Mar-2012	Tender opened on July 15, 2010. Case is under approval process.
10	Training and Software/Hardware Cost for CMMS and Off-line Efficiency Monitoring System. All Units	30-Jun-2011	30-Jun-2011	30-Nov-2011	31-Dec-2011	Bidding documents are under preparation for invitation of Tenders by NPGCL.
11	IP Turbine Rotor (01 No). Units 5&	31-Aug-2011	7-Aug-2011	7-Dec-2011	01-Mar-2012	Tenders opened on July 14, 2010. Case is under approval process.
	Turbo-Generator Bearings (09 Nos). Units 5&6 (One set of bearing for Turbine, Generator and Exciter consists of nine bearings)	31-Aug-2011			31-Mar-2012	Tenders not yet floated.
Lot no.	Description of Work	COMPLETION DATES				Remarks
		FARA	NPGCL Scheduled	Last Month	Current Month	
12	Modification of Excitation system (1 set). Unit 1,2&3 (Modification/up-gradation is required as the spare cards and components of electronic control circuitry have become obsolete)	31-May-2011	21-Mar-2011	30-Nov-2011	31-Mar-2012	Tenders to be opened on Jul 19, 2011.
	Up-gradation of AVR System (01 set). Unit 4	31-Aug-2011	21-Mar-2011			
	Modification of Excitation System (02 set) Units 5&6	July 31,2011	31-May-2011			

13	a. Procurement of Cooling Tower Fan Gear Box & its Parts. (06 No. gear box). Units 5&6	31-May-2011	31-May-2011	31-Oct-2011	31-Oct-2011	a. Tender opened on July 19, 2010. NPGCL after evaluation has requested GM Thermal office to place PO.
	b. Procurement of 0.4KV Motors for Cooling Towers Fan and APH (02 No) Units 5&6	31-May-2011	31-May-2011		01-Dec-2011	b. Tender opened on Nov 30, 2010 and the case is under evaluation by NPGCL.
14	Up-gradation of Furnace safety Supervisory System (FSSS) (01 set). Unit 4	30-Sep-2011	23-May-2011	30-Nov-2011	31-Mar-2012	Tendering is yet to be done.
	Rehabilitation of Furnace safety Supervisory System (FSSS) including Furnace Camera, Flame Monitoring & Ignition System, Units 5&6	31-Jul-2011				
15	D.C. Storage Batteries (01 Set). Units 1,2&3 (item # 8)	31-Dec-2010	15-Oct-2010	30-Sept-10	30-Sept-10	Equipment received, and also installed/tested in Sept 2010. Reimbursement Claim is in process with OFM for US\$ 54,000.
Lot no.	Description of Work	COMPLETION DATES				Remarks
		FARA	NPGCL Scheduled	Last Month	Current Month	
16	220Kv Circuit Breaker SF6 type (06 No). Units 1,2&3	31-Dec-2010	17-Apr-2011	17-Oct-2011	31-Mar-2012	Tender opened on Aug 30, 2010 was held up due to the non-certification of CCC. File sent on Feb 21, 2011 to process at GENCO's level and GENCO has written to the supplier to extend the validity of their offer.
17	Changing of UPS 1&2. (01 set), Unit 4	30-Apr-2011	21-Nov-2010	30-June-2011	31-Mar-2012	Retendering will be done as previous one is cancelled due to non supply of item.
18	Digital Electro Hydraulic System (DEH) (01 set). Unit 4	1-Sep-2011	9-Sep-2011	9-Jan-2012	31-Mar-2012	Tenders opened by NPGCL in Feb 2011. The case is under evaluation with end user.
19	Up-gradation of Turbine Supervisory Instrument System BNC 3300 (Turbine Supervisory Instrument) (01 set). Unit 4	30-Sep-2011	30-Sep-2011	31-Jan-2012	31-Mar-2012	Tenders to be opened in Jul 2011.
20	Air Preheater Elements Hot end, Intermediate & Cold End Layers along with Seals for both Units (04 Set). Units 5&6	1-Jul-2011	26-May-2011	1-Dec-2011	31-Mar-2012	Tender to be opened on Jul 05, 2011.

21	Procurement of G.R.C. Fan Impeller/Rotor (01 Set). Units 5&6	1-Jul-2011	25-Mar-2011	1-Oct-2011	31-Jan-2012	Tender opened on July 06, 2010 by GM Thermal Office, Approval expected in Jun 2011.
22	Economizer Tubes for both Units (02 Set). Units 5&6	31-Aug-2011	31-Aug-2011	31-Jan-2012	15-Apr-2012	Tender opened in Feb 2011 and is under evaluation with end user.
23	Replacement of Damaged Exhaust Flue Gas Ducts of Material Russian Grade Steel sheets (50 M.T), Units 5&6	31-Aug-2011	3-Aug-2011	31-Jan-2012	31-Jan-2012	Tender to be opened on May 24, 2011 and evaluation is in process.
24	Conversion of Boiler Ignition System from Natural Gas to HSD/Furnace Oil. Units 5-6	31-Aug-2011	30-June-2011	31-Dec-2011	1-Mar-2011	Tender to be opened on Jun 28, 2011.
Lot no.	Description of Work	COMPLETION DATES				Remarks
		FARA	NPGCL Scheduled	Last Month	Current Month	
25	Hydraulic coupling of Boiler Feed Water Pumps (01 No). Units 5&6	31-Mar-2011	6-Mar-2011	30-Nov-2011	01-Mar-2012	Tender to be opened on May 31, 2011.
26	Procurement of 6.6KV Motor for C.W. Pumps, CP, ID Fan, FD Fan & BFW Pumps (05 No). Units 5&6	31-Jan-2011	23-Apr-2011	23-July-2011	01-Oct-2011	Tender opened on Sept 20, 2010. NPGCL after evaluation has requested GM Thermal office to place PO.
27	Procurement of 6.6/0.4KV Breaker (5 No. 6KV breaker, 18Nos. 0.4Kv Breakers). Units 5&6	30-Apr-2011	30-Apr-2011	30-Sep-2011	31-Mar-2012	Split into two tenders, one opened in Mar 2011 and is under evaluation while the other one will be opened on Jul 23, 2011.
28	Protection Relay for Generators. Units 5&6	30-Apr-2011	1-Apr-2011	31-Oct-2011	31-Mar-2012	Tender to be opened on Jun 07, 2011.
29	Supply, Installation, Commissioning & Testing of Complete Distribution Control system (DCS) including Field Equipment like Sensors, Transmitter & Actuators etc for Turbine Governing System DEH-III and Boiler Turbine Auto Regulation System YEWPACK-II, Units 5&6	31-Jul-2011	23-Apr-2011	30-Nov-2011	31-Mar-2012	Tender to be opened on Jun 14, 2011.

3. CRITICAL ISSUES AND USAID/AEAI SUPPORT REQUIRED

Item no.	Critical Issues	Status/Mitigation Strategy	USAID/AEAI Support
1	Reimbursement of FARA item # 37	Material received at site on Feb 10, 2011 but was not up to the standard mentioned in FARA.	AEAI to inspect the equipment and check the standard of it.
2	Exemption from custom duties on procurement of all equipment under FARA	NPGCL is pursuing Federal Board of Revenue for acquiring approval.	AEAI has provided NPGCL with requisite copy of the Assistance Agreement referred to in the FARA which explains the terms for exemption and will be used as the basis for exemption.

4. ACTION ITEMS FOR NEXT MONTH

- ✓ Provide assistance in resolving the issues related to the role of CCC in the procurement process and supporting the reimbursement process.
- ✓ Follow-up with NPGCL on the status of procurement of LOTs and support NPGCL in initiating procurement of the remaining FARA items.
- ✓ Provide support in conducting a credible baseline audit of NPGCL units to determine benchmark capacity and efficiency (heat rates) which would be utilized for comparison against operational improvements achieved when USAID's rehab assistance is completed.
- ✓ Follow-up on exemption from custom duties on procurement of equipment under FARA.

www.ep-ep.com.pk
info@ep-ep.com.pk