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MONTHLY REPORT-III OCTOBER-NOVEMBER 2010 REPAIR AND REHABILITATION OF MUZAFFARGARH THERMAL POWER STATION

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REPAIR AND REHABILITATION OF MUZAFFARGARH THERMAL POWER STATION

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1. SUMMARY

The report presents the progress on the repair and rehabilitation of Northern Power Generation Company Limited (NPGCL) for the months of Oct-Nov 2010. Several meetings were arranged between AEAI and NPGCL to discuss the progress and the support required to effectively monitor and implement the Repair and Rehabilitation program.

The overall schedule planned for procurement and installation of equipment at NPGCL is within the FARA completion date of Nov 30, 2011; however there have been some delays in the procurement process for which well coordinated efforts are required to meet the FARA stipulated timelines. The procurement of 15 lots out of 29 lots has been initiated and is in process. Equipment received at site includes: (1) Cold Layer Elements [FARA item # 4]; (2) D.C. Storage batteries [FARA item # 8] and (3) Boiler Super Heater Tubes for Unit 1,2 &3 [FARA item # 1]. However, the reimbursement for the equipment received has been delayed because of undue observations made by Central Contacts Cell (CCC) of Water and Power Development Authority (WAPDA), which has a defined role of certifying all procurements initiated prior to and after signing of the FARA. Several procurement cases from CCC have been returned with observations that are less substantial and causing delays in the procurement and subsequently reimbursement against procured equipment.

In Sept 2010, AEAI in its monitoring and support role facilitated NPGCL and CCC in reaching a Memorandum of Understanding, The USAID Mission also supported in the preparation of this MOU. According to the MOU, CCC will issue a certification of compliance for procurement of equipment under the FARA and in case of dispute; NPGCL will have the right to submit an appeal to the USAID Energy Office and the Ministry to Water and Power for resolution. This arrangement was made to facilitate and expedite the procurement process; however there are still unresolved procurement disputes between CCC and NPGCL which are causing unnecessary delays.

Furthermore for the hiring of the Procurement Specialist by NPGCL as required under the FARA, AEAI's Senior Energy Expert participated in the interview/selection process in early September, 2010. The meeting of Board of Directors' for final selection was held on 27th Oct 2010 and the joining of the procurement specialist is expected in early Dec. 2010.

2. KEY MEETINGS

A meeting was held on 16th October 2010 between AEAI Senior Energy Expert (Mr. Ghulam Abbas) and Chief Executive Officer of NPGCL at Muzaffargarh Thermal Power Station to discuss the FARA monitoring and support plan.

3. PROGRESS ON MONITORING AND SUPPORT

Lot no.	Description of Work	COMPLETION DATES				Remarks
		FARA	NPGCL 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	21-May-2011	31-July-2011	Material arrived at site in November 2010. Inspection will be carried out by USAID Consultant in early Dec 2010. Installation and commissioning will be done by the supplier during successive shutdowns of three units each for two months. Installation and Commissioning will be complete by July 2011. NPGCL requested CCC Certification on Nov 23, 2010.
2	Replacement of Cold layer element for RAH for units 2&3 (item # 4)	30-Nov-2010	31-Aug-2011	31-Sept-10	31-Sept-10	Equipment received at site on 09.07.2010 which was inspected by USAID consultant. It was installed in Sept 2010. CCC did not certify the procurement case on the basis of tenders submitted as photocopy. Subsequently NPGCL filed an appeal to USIAD & Ministry of Water and Power for resolution. Reimbursement is in process with USAID Cairo office.
3	Air Pre-Heater Elements (Intermediate) 2 sets for Unit 4 (item # 11)	30-Sep-2010	3-Feb-2011	3-May-2011	31-July-2011	After CCC vetting, LOI has been issued by General Manager Thermal office on 15.10.2010.
4	I.D. Fan Rotor/Impeller along with Housing and Dampers (04 Set). Units 5&6 (item # 20)	31-Dec-2010	21-Jan-2011	21-Feb-2011	21-March-2011	Purchase Order No .4206. dated 21.06.2010 was issued from General Manager Thermal office. Letter of Credit was opened on 12.08.2010.
5	MK Breakers, Seal Oil Coolers, PMG. Units 5&6 (item # 37)	28-Feb-2011	11-Jan-2011	11-Jan-2011	11-Jan-2011	Purchase Order Nos.4191, 4189 & 4186 issued and Letter of Credits opened on 6.7.2010.
Lot no.	Description of Work	COMPLETION DATES				Remarks
		FARA	NPGCL Scheduled	Last Month	Current Month	

6	Special Cooling Water Treatment. Units 1,2&3	31-Dec-2010	29-Jan-2011	31-March-2011	31-May-2011	Bidding doc prepared and invitation for tenders is in process
	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	30-April-2011	31-May-2011	Procurement cases were not initiated in the previous FY due to financial constraints. Now bidding doc has been prepared and invitation for tenders is in process.
	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-June-2011	8-July-2011	Tender T-1727 opened on 22.07.2010. File sent back to GM Thermal Office after scrutiny on 18.09.2010.
	Electric motor for GRC fan. (01 No). Units 1,2&3	1-Feb-2011				
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-July-2011	1-July-2011	Tender T-1730 opened on 15.07.2010. Evaluation and clarifications from supplier are in process.
10	Training and Software/Hardware Cost for CMMS and Off-line Efficiency Monitoring System. All Units	30-Jun-2011	30-Jun-2011	30-Sep-2011	31-Oct-2011	Tendering was not initiated in the previous FY due to financial constraints. Now bidding docs are under preparation
11	IP Turbine Rotor (01 No). Units 5&6	31-Aug-2011	7-Aug-2011	7-Nov-2011	7-Nov-2011	The cases were not initiated in the previous FY due to financial constraints. These are now being initiated by NPGCL.
	Turbo-Generator Bearings (09 Nos). Units 5&6 (One set of bearing for Turbine, Generator and Exciter consists of nine bearings)	31-Aug-2011				
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	31-Aug-2011	30-Sep-2011	Procurement cases were not initiated in the previous FY due to financial constraints. These are now being initiated by NPGCL.

	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-July-2011	31-Aug-2011	a. Tender T-1723 was opened on 19.07.2010 and its evaluation was completed on 23.08.2010. b. Tender No.T-1447 to be opened on 30.11.2010
	b. Procurement of 0.4KV Motors for Cooling Towers Fan and APH (02 No) Units 5&6	31-May-2011	31-May-2011			
14	Up-gradation of Furnace safety Supervisory System (FSSS) (01 set). Unit 4	30-Sep-2011	23-May-2011	31-Jul-2011	31-Sep-2011	Tendering was not initiated by General Manager Thermal office in the previous FY due to financial constraints despite submission of demand in April and a reminder in August, 2010 to GM Thermal office. These are now being initiated by NPGCL.
	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	31-Sept-10	31-Sept-10	Equipment received, inspected by USAID consultant and also installed in Sept 2010. NPGCL is currently in the process of acquiring CCC certification before filing a reimbursement.
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 (One line diagram is attached in Annex-III)	31-Dec-2010	17-Apr-2011	17-Apr-2011	17-Apr-2011	Tender T-1729 was opened on 30.08.2010 by General Manager Thermal Office and is under evaluation by NPGCL.
17	Changing of UPS 1&2. (01 set), Unit 4	30-Apr-2011	21-Nov-2010	21-Jan-2011	21-March-2011	LOI was issued on 03.06.2010 and General Manager Thermal office is in the process of issuing a Purchase Order.

18	Digital Electro Hydraulic System (DEH) (01 set). Unit 4	1-Sep-2011	9-Sep-2011	9-Nov-2011	9-Nov-2011	Draft tender documents checked and sent on 21.7.10 to General Manager Thermal office. Tender No.MZG-26 opened on 24.11.2010 by GENCO.
19	Up-gradation of Turbine Supervisory Instrument System BNC 3300 (Turbine Supervisory Instrument) (01 set). Unit 4	30-Sep-2011	30-Sep-2011	30-Nov-2011	30-Nov-2011	Demand sent to General Manager Thermal office on 13.03.10 and reminders issued on 12.06.10 and 31.08.10. This will now be initiated by NPGCL itself.
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-Sep-2011	1-Oct-2011	Case was sent to General Manager Thermal office in Jan. '10 but tendering was not initiated in the previous FY due to financial constraints. This will now be initiated by NPGCL.
21	Procurement of G.R.C. Fan Impeller/Rotor (01 Set). Units 5&6	1-Jul-2011	25-Mar-2011	1-Aug-2011	1-Aug-2011	Tender T-1719 was opened on 06.07.10. Evaluations and clarifications from suppliers are in process.
22	Economizer Tubes for both Units (02 Set). Units 5&6	31-Aug-2011	31-Aug-2011	31-Oct-2011	31-Oct-2011	Tender No. MZF-27 was scheduled to be opened on 12.10.2010 by General Manager Thermal office but it was rescheduled to be opened on 25.11.2010 by NPGCL.
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	30-Nov-2011	30-Nov-2011	This procurement will now be initiated by NPGCL after returning of file by General Manager Thermal office.
Lot no.	Description of Work	COMPLETION DATES				Remarks
		FARA	NPGCL Scheduled	Last Month	Current Month	
24	Conversion of Boiler Ignition System from Natural Gas to HSD/Furnace Oil. Units 5-6	31-Aug-2011	30-June-2011	31-July-2011	31-Aug-2011	File was returned by General Manager Thermal office for processing by NPGCL itself. Presently invitation for tenders is in process.
25	Hydraulic coupling of Boiler Feed Water Pumps (01 No). Units 5&6	31-Mar-2011	6-Mar-2011	1-Jul-2011	1-Aug-2011	Procurement case was returned by General Manager Thermal office for initiation at GENCO level.
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-Apr-2011	23-Apr-2011	Tender T-1737 opened on 20.09.10 and after evaluation, File has been sent to Financial Director (Office) for vetting on 26.10.2010.

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-June-2011	30-June-2011	Demand raised on 15.03.2010 & on 31.03.10 for tendering. The specifications were confirmed by General Manager Thermal office on 28.08.10 and returned to NPGCL. This will now be initiated by NPGCL.
28	Protection Relay for Generators. Units 5&6	30-Apr-2011	1-Apr-2011	30-June-2011	30-July-2011	NPGCL is in the process of initiating procurement.
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	31-Jul-2011	31-Aug-2011	Demand sent to General Manager Thermal office on 07.04.2010 for tendering. The case has been returned for initiation by NPGCL itself

4. CRITICAL ISSUES AND USAID/AEAI SUPPORT REQUIRED

Item no.	Critical Issues	Status/Mitigation Strategy	USAID/AEAI Support
1	Reimbursement of FARA item # 4	Material received at site on July 09, 2010 and inspection was carried out by USAID consultant. Reimbursement request was submitted to USAID on Aug 30, 2010 after getting concurrence from USAID and MoWP on appeal submitted by NPGCL.	AEAI facilitated NPGCL in submission of claim to Financial Management Office Cairo/Pak for reimbursement, which is currently in process.
2	CCC certification for DC Storage Batteries (item # 8)	Equipment received and also inspected by USAID consultant. NPGCL is currently in the process of acquiring CCC certification before filing a reimbursement from USAID.	Awaiting CCC certification
3	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	Appointment of Procurement Specialist by NPGCL	Selection of the procurement specialist is completed. Board of Directors approved the appointment in the 27 th Oct meeting.	NPGCL has assured appointment in the first week of Dec. AEAI is pursuing the activity.

5. 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.

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