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MONTHLY REPORT MARCH 2011

REPAIR AND REHABILITATION OF MUZAFFARGARH THERMAL POWER STATION

April 2011

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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 Company Limited (NPGCL) for the months of Mar 2011. 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.

AEAI Senior Energy Expert visited the power plant and inspects the rehabilitation works of boiler No. 1, which was started in the last month and found that almost two months are, require for the installation of tubes for each unit and the entire rehabilitation of boiler super heater will be completed as per FARA Schedule.

A meeting was held on Mar 14, 2011 at AEAI's office with the CEO of NPGCL, in which the CEO signed on the amended document and now with this amendment CCC certification is not require for the procurement of the equipment.

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 3/29/11, while the third reimbursement of \$562,500 was approved by USAID/ENR on 3/29/11 and expected to be deposited in GENCO's account by mid-April or sooner. However total reimbursement claim of \$4,464,500 have been submitted till end March, in which \$3,902,000 have been reimbursed and the remaining is in process with OFM.

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 3-4 months.

2. KEY MEETINGS

A meeting was held on 24th March 2011 between AEAI Senior Energy Expert, Chief Executive Officer of NPGCL, Chief Engineer (Technical Division), Resident Engineers at Muzaffargarh Thermal Power Station to review the working progress.

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	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-Apr-2011	30-Apr-2011	PO placed on June 21, 2010 and Letter of Credit established in Aug 2010. Material received at site on Feb 23, 2011. Reimbursement Claim for US\$ 562,500 has been sent on Mar 29, 2011 and is in process with OFM.
5	MK Breakers, Seal Oil Coolers, PMG. Units 5&6 (item # 37)	28-Feb-2011	11-Jan-2011	16-Mar-2011	1-May-2011	All the three PO's has been placed and the material received on Feb 02, 2011. Reimbursement Claim will be lodged shortly.
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-Aug-2011	01-Oct-2011	Case is with RE-4 and approval for tendering is in process.
	Special Cooling Water Treatment as being used at IPP's. Unit 4	15-Nov-2010			01-Sep-2011	

	Special Cooling Water Treatment as proposed for Units 5&6	15-Nov-2010				01-Sep-2011	
7	Use of Fuel Oil Additive as on Unit-4 (200 Tons). Units 1,2&3	31-Dec-2010	6-Feb-2011	31-Aug-2011	01-Oct-2011	01-Oct-2011	Case is with RE-4 and approval for tendering is in process.
	Use of Fuel Oil Additive (100 Ton). Unit 4	31-Dec-2010	6-Feb-2011		01-Oct-2011		
	Use of Fuel Oil Additive (150 Ton). Units 5&6	15-Nov-2010	6-Feb-2011		01-Sep-2011		
8	Electric motor for C.T. Fan (02 No). Units 1,2&3	1-Apr-2011	8-Apr-2011	8-Sep-2011	01-Oct-2011	08-Sep-2011	Tender opened on July 22, 2010 was held up due to the non-certification of CCC. Now the case has been returned to CEO to place a PO himself.
	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-Sep-2011	01-Sep-2011		Tender opened on July 15, 2010. File sent to GM (Thermal) office after scrutiny of end user to issue PO. CCC observations were replied on March 5, 2011.
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		Case is under process by Director (MMS).
11	IP Turbine Rotor (01 No). Units 5&	31-Aug-2011	7-Aug-2011	7-Dec-2011	07-Dec-2011	07-Dec-2011	Demand has been sent to RE-2 on March 1, 2011.
	Turbo-Generator Bearings (09 Nos). Units 5&6 (One set of bearing for Turbine, Generator and Exciter consists of nine bearings)	31-Aug-2011					Demand is under process with RE-2.
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-Dec-2011	File has been sent back by RE-4 for tendering at GENCO's Level.	
	Up-gradation of AVR System (01 set). Unit 4	31-Aug-2011	21-Mar-2011		30-Nov-2011		
	Modification of Excitation System (02 set) Units 5&6	July 31,2011	31-May-2011		30-Nov-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	<p>a. Tender opened on July 19, 2010. File sent back to GM (Thermal) on Nov 30, 2010, for issuance of PO. File sent on Feb 22, 2011 to process at GENCO's level.</p> <p>b. Tender opened on Nov 30, 2010 and file sent back on Feb 19, 2011 to process at GENCO's level.</p>
	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	
14	Up-gradation of Furnace safety Supervisory System (FSSS) (01 set). Unit 4	30-Sep-2011	23-May-2011	30-Nov-2011	31-Dec-2011	Tender opened on Feb 16, 2011 and is in process with procurement cell.
	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-Sep-2011	17-Oct-2011	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.
17	Changing of UPS 1&2. (01 set), Unit 4	30-Apr-2011	21-Nov-2010	30-June-2011	30-June-2011	LOI was issued on June 03, 2010 by General Manager Thermal office but PO has not yet been issued.
18	Digital Electro Hydraulic System (DEH) (01 set). Unit 4	1-Sep-2011	9-Sep-2011	9-Jan-2012	31-Dec-2011	Tenders opened by NPGCL in Feb 2011. The case is under process with procurement cell.
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-Dec-2011	Case returned by GM Thermal for processing at GENCO's level. This is now being initiated by NPGCL.
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-Dec-2011	Demand received after vetting and is in procurement cell for further processing.

21	Procurement of G.R.C. Fan Impeller/Rotor (01 Set). Units 5&6	1-Jul-2011	25-Mar-2011	1-Oct-2011	31-Oct-2011	Tender opened on July 06, 2010 by GM Thermal Office, however the case was returned to NPGCL for placement of PO.
22	Economizer Tubes for both Units (02 Set). Units 5&6	31-Aug-2011	31-Aug-2011	31-Jan-2012	31-Mar-2012	Tender opened in Feb 2011 and is under process with procurement cell.
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	29-Jan-2012	Demand has been sent to NPGCL on March 19, 2011.
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	31-Dec-2011	Tender was sent for publication in Feb 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	30-Nov-2011	Case returned by GM Thermal for processing at GENCO's level. This is now being initiated by NPGCL.
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 the GM Thermal office to place the 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	30-Sep-2011	Tender will be opened on March 04, 2011.
28	Protection Relay for Generators. Units 5&6	30-Apr-2011	1-Apr-2011	31-Oct-2011	31-Oct-2011	Demand received back in procurement cell after financial vetting on March 1, 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-Dec-2011	Demand sent to General Manager Thermal office on April 07, 2010 for tendering. Demand has been sent for financial vetting and is in process.

4. 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.

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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