

THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED (A GOVT. OF WEST BENGAL ENTERPRISE)

OFFICE OF THE GENERAL MANAGER,

Bandel Thermal Power Station P.O. Tribeni, Dist. Hooghly, Pin-712 503

TENDER DOCUMENT

NIT No.: WBPDCL/Tend-Adv/CC/13-14/118/BTPS Date: 23.10.2013 Job - I

Ref. No.BTPS/P-32/AHP (O) /2013-14/

Dated:

TENDER DOCUMENTS FOR OPERATION OF ESP& ASH HANDLING PLANT (1-4) UNITS AT BTPS

Last Date/Time for Sale of Tender papers	:	Upto 05.11.2013 except Saturday, Sunday&
		Holidays between 10.30 A.M. to 01.30 P.M.
Date & Time for pre-bid discussion	:	14.30 P.M. on 08.11.2013
Last Date&Time for Submission of Tenders upto	:	1.30 P.M. on 15 .11.2013
Opening of Earnest Money(part-I) and Qualifying	:	2.30 P.M. on 15 .11.2013
requirement & Techno-Commercial bid (Part-II)		
Opening date & time of Price bid(Part-III)		To be intimated in due course
Cost of Tender Document (non-refundable)	Γ	Rs 2 000/- (to be deposited in cash)

I	S	S	ι	ı	e	•	l	1	t	0	:																																				
Ν	1	[/	/ 5	S																																											
																																					_										
•	•	•	•	•	•	•	•	•		•		•	•	•	•	•	•		•	•	•	•	•	•	 •	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	 •	•	•	

Enclo: a) Instruction to Tenders

b) Qualifying Requirement (Annexure-III)

c) Scope of work (Annexure-I)

d) List of major equipment (Annexure-IV)

e) Minimum Qualification & Experience

Of personnel (Annexure-V)

f) Annexure-II & VI.

DIPANKAR ROY

Sr. Manager(Store& Purchase) (Signature of the Issuing Authority)

Corporate Office: Fax No. 2339-3186/2339-2339-3286. Phone No.2339-3186/2339-3286 BTPS: Fax No.(91-033) 2684 6151. Phone No. (91-033) 2681 2220 (General Manager)

(91-033) 2681-2223(Dy. General Manager) (91-033) 2681-2243(Store& Purchase) (91-033) 2681-2230(Accounts)

NIT No.: WBPDCL/Tend-Adv/CC/13-14/118/BTPS

Job –I

Ref. No.BTPS/P-32/AHP(O) /2013-14/

Dated:

Date: 23.10.2013

DESCRIPTION OF WORK: i) Operation of Bottom Ash Handling system, Wet & Dry Fly Ash Handling system along with ash silo handling system i.r.o.(1-4) Units at BTPS. ii) Operation of Station silo for dry Fly Ash Handling system on rate contract basis.

Information to Bidders:

This is three part bid system containing Earnest Money(Part-I), Qualifying requirement & Techno-Commercial bid (Part-II)& Price Bid(Part-III). The same will be received and evaluated by BTPS, WBPDCL from technical and financial point of view to make a selection in the best interest of BTPS,WBPDCL for the complete job under the tender document.

Tender documents consist of the following:

1.0 PART-1: Earnest Money

1.1The tender must be accompanied by Earnest Money deposit of Rs. 72,000.00 (Rupees seventy two thousand only) in the form of Demand Draft/Banker Cheque (on any Bank approved by the RBI). The D/D or Banker cheque shall be drawn in favour of "The West Bengal Power Development Corporation limited, BTPS" on State Bank of India, Tribeni branch(00225). The Earnest money must be sent along with the tender in a separate sealed envelope superscribed clearly as 'Earnest Money'. Tender submitted without Earnest money of requisite amount, shall be deemed to be incomplete and will be treated as cancelled.

The Earnest money of the successful Tenderer will be converted into initial Security Deposit & will be adjusted with total security deposit as will be applicable. The Earnest Money is liable to be forfeited if the successful tenderer fails to execute the contract.

- 1.2 No interest will be payable by WBPDCL on the above Earnest Money Deposit. Earnest Money of the unsuccessful tenderers will be refunded to them in due course after finalization of the order.
- 1.3 The WBPDCL reserves the right of forfeiture of Earnest Money deposit in case the tenderer after opening of tender withdrawn, amends, impairs, derogates or revokes his tender within the validity period or extension thereof.
- 1.4 Earnest Money submitted against any other tender at BTPS or WBPDCL cannot be transferred as Earnest Money (partly or fully) for the instant tender.

2. PART- II : Qualifying requirement & Techno-Commercial bid

(A) Qualifying Requirement:

All the documents as stated under are to be submitted in a sealed cover envelope. Please make sure that all the points have been covered as stipulated in the tender documents, otherwise tender will be treated as rejected.

2.1. Documents in support of qualifying requirement of tenders as stipulated in the notice inviting tender in Annexure-III & are clarified as below:

Eligibilty Criteria of Agency (Bidder):

- i) The agency/Company must have valid ESI & P.F. Code and possess valid Trade license, Certificate of incorporation, Service tax registration No., PAN No., Income tax clearance certificate, P. tax clearance certificate and other necessary certificate as per Govt. Rules and Regulations for execution of this type of job.
- ii) In case of non-possession of E.S.I code tender will be issued and processed subject to the condition that the successful bidder will have to submit the same before placement of the order.
- iii) The Agency/Company must have valid I.T. registration, P.T. registration and service Tax Registration certificate.
- iv) Status of the organization with documentary evidence is to be furnished.
- v) Legible photocopies of all documents duly attested are to be submitted along with the tender. Original copies of documents are to be produced on demand.

(B) Techno-Commercial:

- 2.2 All conditions of job as per this tender document should be abided by.
- 2.3 Scope of work which has been indicated to be strictly maintained as per tender.
- 2.4 Payment terms shall specifically be mentioned in the tender, deviation of payment terms may not be accepted.

N.B.: Bidders must have to be submit all relevant original documents at any time with 7(seven) days' notice after opening of tender, failing of which it may be treated that they are not interested for the tender.

3.0 **PART-III: Price bid**: Price schedule shall be submitted in a separate sealed envelope.

4. Prebid discussion:

It is intended to have a prebid discussion at this office on 08.11.2013 at 2.30P.M. to provide any additional information and to furnish clarification if any, needed on the scope of Work and tender documents. In this respect, it is preferable that tenderer should send us all queries, at least (2) two days before the date of prebid discussion. Any modification or addenda of tender documents issued shall also be part of this tender document. Party/parties not attending the discussion shall also be under purview of the modification/addendum if any and it would be the responsibility of the party/parties to collect the papers containing the modification/addendum and submit tender accordingly.

5.0 Mode of submission of tender:

- 5.1 All separately sealed envelope covers containing necessary documents shall have to be suitable superscribed as EMD/ Qualifying Requirement & Techno-Commercial Bid/Price bid as the case may be and shall bear reference to the name of the work and notice inviting tender(NIT).
- 5.2 The tender containing three separately sealed envelopes i.e. EMD (Part-I), Qualifying Requirement & Techno-Commercial bid (Part-II) and Price bid (Part-III) shall be sealed in one envelope marked Tender Documents (three parts) and shall bear reference to the name of work and NIT. This sealed envelope shall be submitted at the above office within 13.30 Hrs. on 15.11.2013.
- 5.3 The tender may be submitted by post/in person/ through courier service at the above office. Tender submitted by Fax/E mail will not be accepted. Tenders received after the due date and time will not be considered.
- 5.4 All the costs and expenses incidental to the submission of the tender, discussions, conferences, if any, shall be to the account of the tenderer irrespective of whether the tender is accepted or not and WBPDCL will not bear any liability whatsoever on such costs & expenses.
- 5.5 The tender once submitted by a tenderer shall become the property of WBPDCL and WBPDCL will have no obligation to return the same to the tenderer.

6.0 Opening of Tender:

- **6.1** The tenders will be opened in presence of the attending tenderers or their representative at the time & date set for opening of tender as specified hereunder or on the extended tender opening of date and time of tender in case any extension is made thereafter to be notified to the tenderers. Tenderer's authorized representatives (up to two persons) may attend the opening.
- 6.2 The due date and time of opening of EMD (Part-I) & Qualifying Requirement & Techno-Commercial bid of bidder (Part-II) is 14.30 Hrs. on 15.11. 2013. After opening of the main cover, the envelope containing the EMD will be opened first and if EMD of requisite amount in proper mode is found only then envelope containing Qualifying Requirement & Techno-Commercial bid will be opened.
- 6.3 Price Bid (Part-III) of tender of those tenderers who will be considered qualified in Part-I & II by WBPDCL will be opened subsequently at a later date. The due date & time of opening of price bid will be duly intimated.

7.0 Evaluation of Tender:

- 7.1 Issuance of tender document will not be construed to mean that such tenders are automatically considered qualified for the entire tender process.
- 7.2 The WBPDCL reserves the right to accept any tender or reject any or all tenders or cancel/ withdraw the invitation of tenders without assigning any reason for such decision. Such decision by WBPDCL shall not be subject to question by any tenderer and WBPDCL shall bear no liability consequent upon such decision and the tenderers shall have no claim in this regard against WBPDCL.

- 7.3 Evaluation of tender by WBPDCL will be based on the information and documentary evidence Submitted by the tenderers in response to the tender documents. The requirements as stipulated in the tender notice and documents are the minimum and WBPDCL has the right to request for additional information. WBPDCL reserves its right to reject any tender, if in the opinion of WBPDCL the qualification data/documentary evidence submitted by the tenderer is incomplete/inadequate or tenderer is found not qualified to perform the work satisfactorily. The WBPDCL reserves the right to reject any tender if the tenderer is found to be disqualified for providing incorrect and/ or false information.
- 7.4 The WBPDCL does not bind itself to accept the lowest tender and also reserves the right to split the work amongst more than one tenderer and also reserves the right to reject any or all tenders without assigning any reason whatsoever.
- 7.5 Notwithstanding, anything stated above or elsewhere, the WBPDCL reserves the right to assess the capability and capacity of the tenderer, should the circumstances warrant such assessment in the overall interest of the WBPDCL.
- 7.6 The WBPDCL at its discretion may terminate the order with one month notice without assigning any reason whatsoever.

Yours faithfully,

(DIPANKAR ROY) Sr. Manager(S&P), BTPS

Scope of Work(Units #1,2, 3 &4)

- 1.0 Work and service to be rendered by the contractor for annual Operation of the WET & DRY Ash Handling System including Three Nos. Ash Water Pumps of BTPS Unit #1,2,3 & 4 ,Electrostatic Precipitators and Station Silo of Dry Ash Handling System round the clock shall include but not exhaustive to the following.
- 1.01 All routine operation of Ash Handling Plant including Ash Water Pumps and Dewatering pumps and removal of technological waste shall be executed by deputing experienced Service Engineers, Supervisors, Operators, in such a manner that the during operations of Boiler/Boilers Air Preheater Hoppers, Bottom Ash Hoppers and ESP Hoppers shall normally remain empty. The Contractor shall maintain close co-ordination with WBPDCL plant Engineers for the routine operation activities of the equipment and Systems etc. as detailed in the subsequent paragraphs and in the annexure. The contractor shall Monitor the performance of different components of the renovated Fly Ash Handling System of the units including Operation of Silo and ensuring of adequate measure to overcome or obviate and actual or likely shortfall in the performance..
- 1.02 Monitoring of the performance of the different components of the Ash Handling Plant and ensuring adequate measures to overcome any shortfall in the performance by maintaining close co-ordination with WBPDCL Engineers for Operation activities; starting/stopping of major equipments/systems shall be done with the concurrence of WBPDCL authorities.
- 1.03 Operation of all types of valves should be within the scope of the contractor. Operation of illumination system of the following areas:
 - i) Silo area
 - ii) U#1,2,3,4 FACP
 - iii) Silo power supply & IA control room
 - iv) Ash plant MCC and control room.
- 1.04 Operation of 04 (Four) nos Dewatering pumps with Motors installed in the cable trench sump around Bottom ash hopper area.
- 1.05 Operation i,e, putting in and out of service of Electrostatic Precipitators with the concurrence of WBPDCL authorities.

OPERATION (Both wet & dry system) OF UNITS:-

The scope includes all the activities covered under Sl. No. 1.0 along with Operation of the following equipment/subsystem.

- i) ESP/ Buffer Hopper fluidizing blowers (02 Nos.) with all accessories.
- ii) Silo system with its all accessories e.g. Fluidizing Blowers, Conditioning Pumps, Unloader, Telescopic Spouts, Feeders, Vent Filters, Vent Fans, associated valves, pipes etc.
- iii) Conveying compressors.
- iv) Complete control and instrumentation system of the above equipments/ sub-systems.

1.00 TERMS OF PAYMENT:

a) 100% monthly payment at the applicable rate will be made after completion of work for the preceding month as certified by controlling officer and on submission of running bills in triplicate duly pre- receipted in original. The payment will normally be released within 15(fifteen) days from the date of submission of bills, if found in order.

2.00 PRICE DETAILS

Compulsory jobs

Clear and explicit price details on monthly basis for a contract period of twelve months shall be quoted by the bidders for compulsory jobs. The prices will remain firm for the entire period of the contract.

3.00 Deduction in Price: In case of long shut down/ long outage price will be deducted @ 30% on the monthly bill

4.00 SECURITY DEPOSIT: -

10% of work order value shall be deposited by the Contractor as security deposit –cum-performance guarantee in the form of Bank Guarantee (BG) in the prescribed format of BTPS from any Nationalised Bank/Scheduled Commercial Bank valid till expiry of Contract period with a claim period of another six months from the date of completion of contract.

The B.G. shall be submitted within 30(Thirty) days from the date of receipt of W.O. If the contractor fails to fulfill the agreement of the contract, their claims whatsoever, including B.G. as S.D. shall be forfeited.

5.00 CONTRACT PERIOD:-

The contract period shall remain valid for a period of one year with effect from the actual commencement of work. The contract may be extended for a further period of six months at the same rate and terms & conditions subject to satisfactory performance of the contractor in the first year to be evaluated by BTPS authority. Site mobilization should be done within a period of maximum one week from the date of placement of Work Order.

- **6.00 TERMINATION OF CONTRACT:-** WBPDCL reserves the right to terminate the contract at any stage due to unsatisfactory performance by the contractor at the discretion of WBPDCL without assigning any reason thereto...
- **7.00 Settlement of Disputes and Arbitration**: The parties shall use their best efforts to settle amicably all disputes arising out of or in connection with their contract or the interpretation there of. Any disputes between the parties as to matters arising pursuant to their contract which can not be settled amicably within 30 (thirty) days after receipt by one Party of the other Party's request for such amicable settlement, the dispute may be submitted by either Party for settlement in accordance with the Arbitration clause in WBPDCL General Condition of Contract.

In the event of any dispute or difference whatsoever arising under the contract or in connection therewith including any question relating to existence, meaning and interpretation of the contract or any alleged breach thereof, the same shall be referred to the to a person nominated by him for arbitration.

The Arbitration shall be conducted in accordance with the provisions of **arbitration and conciliation law 1996 or latest** and the decision/judgement of Arbitrator(s) shall be final and binding on both parties.

However, in case, contractor is a Central Public Sector Enterprise, the dispute arising between the owner and contractor shall be settled through permanent arbitration machinery (PAM) of the Department of Public Enterprise, Govt. of India as per prevailing rules.

All suits arising out of this enquiry and subsequent purchase order, if any, are subject to jurisdiction of court in the city of Kolkata only and no other court, when resolution/settlement through mutual discussion and arbitration fails.

1.00 GENERAL TERMS & CONDITIONS OF THE CONTRACT:-

- 01) The Tenderer must have experience of successfully completed the work of Operation contract for a minimum period of one year of Ash Handling Plant and ESP in power station having minimum installed capacity of 240 M.W of Unit capacity not less than 60 M.W in the following two types of Ash Handling system:-
- a) PLC based dry type fly ash removal through vacuum system and silo along with removal of fly ash in the form of slurry through Ash Slurry pumps and bottom ash removal through clinker grinder with hydro ejector.
- 02) The Tenderer should have a requisite infrastructure to provide engineering support that may be required for smooth and efficient functioning of the AHP & ESP.
- 03) Self authenticated credential certificate from PSU power utilities/Govt./Semi Govt./any other reputed organization engaged in thermal power generation shall have to be submitted by the Tenderers in support of having executed the work as defined at Sl. No.01 above during last **year** ending last day of month previous to the one in which offers are invited to fulfill any of the following,
- a) One similar completed work costing not less than the amount equal to 40% of the estimated cost.

01

b) Two similar completed works each costing not less than the amount equal to 30% of the estimated cost. Completed work means "the executed/completed portion of the Work Order/AMC/RC even if the work has not been completed in totality (Subject to furnishing proof of executed value of work in the form of certified copies of RA bills)

Note:-In the event of all the participating vendors having experience/exposure of similar jobs fails to meet the determining value as under (a), (b) & (c), 5% relaxation on the determining value shall be granted as per prevailing statute of WBPDCL. In other words, if the determining value of (a) or (b) or (c) falls short by not less than 5%, all such bidders shall ,however, be considered eligible. The maximum permissible relaxation shall be to the extent of 5% only. In case shortfall exceeds 5% the bidder shall not be considered eligible.

"Similar work" means undertaking annual operation contract for the Ash Handling Plant of 60 MW Unit capacity or above comprising of all associated auxiliaries of the Ash Handling system of a thermal power plant. The bidders must have exposure in the operation & maintenance of Ash Handling Plant having <u>PLC</u> based dry type fly ash removal through vacuum system and silo along with removal of fly ash in the form of slurry through ash slurry pump and bottom ash removal through clinker grinder with hydro ejector.

The work exposure in PLC based dry type fly ash removal through vacuum system and silo along with removal of fly ash in the form of slurry through ash slurry pump is mandatory.

For the purpose of evaluation the total contract value wherein work value in the above scope may constitute a part or the whole shall be reckoned to be the defining amount of set forth criteria under (a), (b) or (c) above.

Apart from submitting the self-authenticated copies of the above documents the bidders should fulfill the following,

- 04) i)Average Annual Turnover(AAT) of the participating firm during last three years ending 31st
 - March'12 must be at least 30% of the estimated cost of the tender.
- ii)Submission of solvency certificate from their Banker clearly indicating the amount up to which the firm is solvent to execute contract.
 - iii) Annual Accounts of preceding three financial years along with profit & loss Account and Balance Sheet.
 - iv) Overall profitability and cash profit as certified by Auditor.

v) Submission of valid documents indicating status of the organization (i.e., proprietorship/partnership firm/public limited company etc.

vi)Submission of EPF registration certificate of the firm.

All the self-authenticated documents shall be furnished by the Tenderer along with Techno-Commercial Bid of the offer.

- O5) The contract shall be executed as per the scope of work covered under <u>Annexure-I</u> but any other activity not envisaged /covered in the scope but essentially required for completeness of execution of the contract shall be in the scope of the contractor without any extra cost to WBPDCL.
- 06) The contractor shall execute an agreement in T-3 form of WBPDCL on a non-judicial Stamp paper of appropriate value.
- 07) The contractor shall submit a list of workers engaged in the job during the first week of every month along with detailed address of each worker.
 - Removal of technological waste generated during execution of works shall be in the scope of the contractor. The party should remove all the technical waste to keep the place clean and according to the satisfaction of WBPDCL Engineers within 3(three) days after completion of work, failing which WBPDCL will clean the place at their own cost and necessary deduction at the 'rate of double of original cost' will be deducted from the monthly bill of the party.
 - 09) Internal telephone facilities for local calls will be provided by WBPDCL free of cost to the contractor for effective communication towards execution of the job. However, the contractor must maintain mobile phone for better communication.
 - 10) Medical facilities as available at WBPDCL will be extended to the employees/workers of the Contractor on payment basis at the prevailing rate applicable to an outsider.
 - 11) Accommodation to visiting Engineers of the Contractor will be provided in BTPS Guest House, on payment basis at the prevailing rate applicable to an outsider subject to availability.
 - 12) Unfurnished office space with water & electricity will be provided to the contractor free of cost.
- 13) Unfurnished residential accommodation with water & electricity for Engineers/ staff of the will be provided subject to availability on payment basis at the applicable rate.
 - 14) Compressed service air as required for execution of the job will be provided by WBPDCL free of cost at certain specific locations.
 - 15) EPF provisions for the workers will be made by the Contractor as per rule. Relevant documents regarding EPF for the workers of the Contractor shall be submitted to the WBPDCL authority before executing the agreement in T-3 Form & as per the format.
 - The contractor shall be solely and wholly responsible for safety and security of workers engaged in the job and the WBPDCL property. In case of any accident the contractor shall pay proper compensation to the workers as per workmen's' compensation act and repair/replace WBPDCL property at their own cost & arrangement. WBPDCL will have no responsibility, whatsoever, and will be kept fully indemnified and harmless in this regard. The contractor shall also make adequate provision of insurance for their workers at their own cost to cover them against the risk of accident.
 - 17) The contractor and their workers engaged in the job shall follow all safety rules at the time of execution of work. It shall be responsibility of the contractor to supply all safety equipment as necessary to its O& M staff without any extra cost to WBPDCL. All statutory rules & regulations as applicable as per workmen's compensation act shall have to be followed by the contractor while engaging/retrenchment of the workers/employees.
 - 18) The contractor shall comply with all laws, rules & regulations of the land including but not limited to, i) Labour rules & Acts, ii) Factories Act, iii) Minimum wages Act, IV) Payment of Wages Act, v) Bonus Act, vi) EPF rules, vii) Contract Labour (Regulation & Abolition) Act as in vogue or comes into vogue from time to time during currency of the contract. WBPDCL will be kept indemnified against any claim arising out of non-compliance of such Acts/rules.

- 19) As the plant site of BTPS is a protected area necessary gate pass of every worker shall be arranged by the contractor with proper intimation to WBPDCL as per Rule. The expenditure of photograph required for gate pass shall be borne by the Contractor.
- 20) If WBPDCL authority engages any other agency to complete any outstanding/ leftover job assigned to the Contractor all the expenses thus incurred to complete the job shall be borne by the contractor.
- The contractor shall not pay less than minimum wages to the workers under the Minimum Wages Act and the Govt. rules made there under subject to revision from time to time. The payment will be made to the workers in presence of the authorized representative of the personnel department. The monthly payment is to be made on the 7th day of successive month. The contractor may change the place and time of payment to his workers under intimation to the personnel department of WBPDCL.
 - During execution of the contract as well as after expiry of the contract period the contractor shall ensure that none of their employees/workers claim employment in WBPDCL.
 - 23) Legal suits arising out of the contract, if any, are subject to the jurisdiction in the court of the city of Kolkata in India and no other court elsewhere.

1.00 A LIST OF MAJOR EQUIPMENT AND AUXILIARIES OF ASH HANDLING PLANT INCLUDING ASH WATER PUMPS , DEWATERING PUMPS OF BTPS **UNITS#1,2,3&4** (4X60 MW) UNDER THE CONTRACTOR'S SCOPE OF WORK:

- Bottom Ash Hopper having eight hours storage capacity having one Bottom Hopper Inner Gates with hydraulic operated gates and one manual outer gates, four (4) Clinker Grinders with fluid coupling, Gear Boxes, Four (4) air / water converter pressure tanks with associated piping and valves. Trough Seal and Bottom Hopper make up and overflow lines & weir box. Four (4) Ash transport lines with coupling etc. Bottom Ash Slurry Sump running in a pipe trench.
- ❖ Vertical sump pump in drain pits: one pumps per unit, Capacity 100 cu.m /hr., Head 10 MWC, Motor Rating 8 KW
- Horizontal Seal Water Pumps: 2 pumps, Capacity 35 cum / hr., Head 120 MWC Motor Rating – 22 KW

APH Hoppers – Four per unit connected with FA evacuation system.

ESP Hopper –8 Hoppers per unit #1 to #3 & 6 Hoppers in unit #4. Ash slurry is formed with the help of jetting type nozzles at Hydro vector tower. The ash slurry formed is led through pipes. Thereafter the slurry is transported by gravity to Ash Pond.

- ❖ 300 NB Fly Ash Disposal Lines up to ash dyke total 2 nos. with Bottom/ Fly change over valve. Length approx. 3 KM. The pipes have couplings after approx. every 6 meter long pipe.
- ❖ Ash Ponds − 2 nos
- ❖ Ash Water Pumps 3 nos Capacity – 550 m3/Hr., Head – 180 MWC, Motor Rating – 300 KW

❖ ELECTRICAL & C&I:

Control Desk Panel, pressure gauges, flow switches, level gauges, level switches etc.

Ash M.C.C: Two nos per Unit – One no main ash control panel cum desk including PLC per unit & one no Bottom Ash Local Control Panel per Unit.

Power and control supply cabling network, earthing system, LPB stations, Lighting Network of ESP Hopper area, Ash slurry Pump House, Ash Water Pump House, Ash MCC and Control Rooms including associated SLDBs, junction boxes, cabling, conduits, receptacles, lighting fixtures with gear boxes.

1	ESP Fluidizing Blower	08(two) nos	Type: 55AC TL Compressor. Make- Kay Intenational Pvt.Ltd.
2	SILO fluidizing Blower.	02(two) nos	. Type: 78AC TL Compressor.
3	Clinker Crusher	04(four) nos	Make- Kay Intenational Pvt.Ltd.
4	Orifice Feeder (dry)	02(one) nos	
5	Rotary Feeder (spray)	02(one) nos	Cap- 60 TPH
6	SILO Vent Fan	02(one) nos	Power-3.7kw, Speed- 58 rpm
7	Un loader Feeder Vent Fan	02(one) nos	
8	Silo	02 (one) no.	1100MT

2	Conveying Compressor Instrument Air Compressor	08(three) nos 02(Two)	Make-M/s Kay International Type:WCTL Compressor Capacity: 4830 m3/hr. Motor:200KW, 1488rpm. Cooling water pr. 1.5kg/cm2.
3	Air Drier		
5	Seal Water Pump Gear Box	01(one) nos 02(two) nos 04(four) nos	Make :- Delair India Pvt.Ltd.

4.00. MAJOR EQUIPMENT FOR SILO SYSTEM OF UNIT #1to4 & Silo.

SR	Equipments	Quantity	Specification
NO			
1	Conveying Compressor	08(three) nos	Cap:-934 CFM; Disch. Pr:-1.1
			bar. Power:-275 k.W.
2	Vent Filter	02(two) nos	
3	Vent Fan	04(four) nos	
4	Buffer Hopper	04(four) nos	
5	Bag Filter	02(two)	
6	Silo fluidizing Blower	04 (four) nos	
	_		Cap:-370 m³/hr. Head:-420
7	Ash conditioning pump	02(two) nos	MWC
			Cap:-25 m ³ /Hr.(5.5 k.W)
8	Rotary Unloader	04(four) nos	
			Cap:-100 T/Hr.
9	Orifice Feeder	02(two) nos	
		, ,	Cap:-120 T/Hr.
10	Cooling Water Pump	03(three) nos	_
			Cap:-110 m³/Hr.
11	Silo	02(two) nos	1100 M.T.each
12.	Retractable chute	02(two) Nos.	40 T/H, 100 T/H

1.00 Minimum qualification & experience of Personnel & manpower required

Sl.No.	Category.	Educational qualification.	Work experience.
01.	Site- in –Charge (One No.)	Diploma in Elec./Mech. Engg. from a recognized Institute.	Min. Five(5) years of experience as a site-In-Charge of Ash Handling Plant of a thermal power station having minimum installed capacity of 240(4x60) M.W. The attested photocopy of the Certificate regarding the Requisite qualification and experience should be submitted.
02.	Supervisor(Elec/Mech.) Operation (Two Nos.)	ITI in Elec/Mech. from a recognized Institute	Min. five years of working experience in thermal power plant of Unit capacity not less than 60 MW. The attested photocopy of the Certificate regarding the Requisite qualification and experience should be submitted.
03.	Operators. (5x3 nos.)	ITI(Elec/Mech.) trade institute certificate from recognized institute.	Min. two years of working experience in Ash Handling system of large thermal power plant of Unit capacity not less than 60 MW. The attested photocopy of the Certificate regarding the Requisite qualification and experience should be submitted .

ANNEXURE-VI

PENALTY: a) Absence of Site-In-Charge for more than Two days will attract deduction of payments by 1% of monthly bill for each day after third day.

b) If unit performance is not satisfactory due to non functioning / under functioning of you for more than Seven days at a stretch ,10% of monthly bill may be deducted for negligence.

TENDER DOCUMENT

NIT No.: WBPDCL/Tend-Adv/CC/13-14/118/BTPS	Date: 23.10.2013
Job - II	

Ref. No.BTPS/P-32/AHP&ESP/2013-14/

Dated:

TENDER DOCUMENTS FOR MAINTENANCE WITH SUPERVISION OF ASH HANDLING PLANT & ESP (1-4) UNITS AT BTPS

Last Date/Time for Sale of Tender papers	:	Upto 05.11.2013 except Saturday, Sunday&
		Holidays between 10.30 A.M. to 01.30 P.M.
Date & Time for pre-bid discussion	:	14.30 P.M. on 07.11.2013
Last Date&Time for Submission of Tenders upto	:	1.30 P.M. on 15 .11.2013
Opening of Earnest Money(part-I) and Qualifying	:	2.30 P.M. on 15 .11.2013
requirement & Techno-Commercial bid (Part-II)		
Opening date & time of Price bid(Part-III)		To be intimated in due course
Cost of Tender Document (non refundable)		Rs. 2,000/- (to be deposited in cash)

I	S	S	i	ı	e	C	l	t	()	:																					
N	V	1	/ 5	S															 											 		
																										•				• •		

Enclo: a) Instruction to Tenders

b) Qualifying Requirement (Annexure-I)

c) Scope of work (Annexure-II)

d) List of major equipment (Annexure-III)

e) Minimum Qualification & Experience

Of personnel (Annexure-IV)

f) Annexure-A,B,C,D,E,.

DIPANKAR ROY

Sr. Manager(Store& Purchase) (Signature of the Issuing Authority)

Corporate Office: Fax No. 2339-3186/2339-2339-3286. Phone No.2339-3186/2339-3286 BTPS: Fax No.(91-033) 2684 6151. Phone No. (91-033) 26846369 (General Manager) (91-033) 2681-2223(Dy. General Manager) (91-033) 2681-2243(Store& Purchase)

(91-033) 2681-2230(Accounts)

NIT No.: WBPDCL/Tend-Adv/CC/13-14/118/BTPS

Job -II

Ref. No.BTPS/P-32/AHP&ESP /2013-14/

Dated:

Date: 23.10.2013

DESCRIPTION OF WORK: MAINTENANCE WITH SUPERVISION OF ASH HANDLING PLANT & ESP (1-4) UNITS AT BTPS

Information to Bidders:

This is three part bid system containing Earnest Money(Part-I), Qualifying requirement & Techno-Commercial bid (Part-II)& Price Bid(Part-III). The same will be received and evaluated by WBPDCL, BTPS from technical and financial point of view to make a selection in the best interest of WBPDCL, BTPS for the complete job under the tender document.

Tender documents consist of the following:

1.0 PART-1: Earnest Money

1.1The tender must be accompanied by Earnest Money deposite of Rs. 70,000.00 (Rupees seventy thousand only) in the form of Demand Draft/Banker Cheque (on any Bank approved by the RBI). The D/D or Banker cheque shall be drawn in favour of "The West Bengal Power Development Corporation limited, BTPS" on State Bank of India, Tribeni branch(00225). The Earnest money must be sent along with the tender in a separate sealed cover superscribed clearly as 'Earnest Money'. Tender submitted without Earnest money of requisite amount, shall be deemed to be incomplete and will be cancelled.

The Earnest money of the successful Tenderer/Tenderers will be converted into initial Security Deposite & will be adjusted with total security deposit as will be applicable. The Earnest Money is liable to be forfeited if the successful tenderer fails to execute the contract.

- 1.2 No interest will be payable by WBPDCL on the above Earnest Money Deposit. Earnest Money of the unsuccessful tenderers will be refunded to them in due course after finalization of the order.
- 1.3 The WBPDCL reserves the right of forfeiture of Earnest Money deposit in case the tenderer after opening of tender withdrawn, amends, impairs, derogates or revokes his tender within the validity period or extension thereof.
- 1.4 Earnest Money submitted against any other tender at BTPS or WBPDCL cannot be transferred as Earnest Money (partly or fully) for the instant tender.

2. PART- II : Qualifying requirement & Techno-Commercial bid

(A) Qualifying Requirement:

All the documents as stated under are to be submitted in a sealed cover envelope. Please make sure that all the points have been covered as stipulated in the tender documents, otherwise tender will be treated as rejected.

2.1 i. Documents in support of qualifying requirement of tenders as stipulated in the notice inviting tender in Annexure-I & are clarified as below:

Eligibilty Criteria of Agency (Bidder):

- i) The agency/Company must have valid ESI & P.F. Code and posses valid Trade license, Certificate of incorporation, VAT, Service tax registration No., PAN No., Income tax clearance certificate, P. tax clearance certificate and other necessary certificate as per Govt. Rules and Regulations for execution of this type of job.
- ii) In case of non possession of E.S.I code tender will be issued and processed subject to the condition that the successful bidder will have to submit the same before placement of the order.
- iii) The Agency/Company must have valid I.T. registration, P.T. registration and service Tax Registration certificate.
- iv) Status of the organization with documentary evidence is to be furnished.
- v) Legible photocopies of all documents duly attested are to be submitted along with the tender. Original copies of documents are to be produced on demand.

(B) Techno-Commercial:

- 2.2 All conditions of job as per this tender document should be abided by.
- 2.3 Scope of work which has been indicated to be strictly maintained as per tender.
- 2.4 Payment terms shall specifically be mentioned in the tender, deviation of payment terms may not be accepted.

N.B.: Bidders must have to be submit all relevant original documents at any time with 7(seven) days notice after opening of tender, failing of which it may be treated that they are not interested for the tender.

3.0 **PART-III: Price bid**: Price schedule shall be submitted in a separate sealed envelope.

4. Prebid discussion:

It is intended to have a prebid discussion at this office on 07.11.2013 at 2.30P.M. to provide any additional information and to furnish clarification if any, needed on the scope of Work and tender documents. In this respect, it is preferable that tenderer should send us all queries, at least (2) two days before the date of prebid discussion. Any modification or addenda of tender documents issued shall also be part of this tender document. Party/parties not attending the discussion shall also be under purview of the modification/addendum if any and it would be the responsibility of the party/parties to collect the papers containing the modification/addendum and submit tender accordingly.

5.0 Mode of submission of tender:

- 5.1 All separately sealed envelope covers containing necessary documents shall have to be suitably superscribed as EMD/ Qualifying Requirement & Techno-Commercial Bid/Price bid as the case may be and shall bear reference to the name of the work and notice inviting tender(NIT).
- 5.2 The tender containing three separately sealed envelopes i.e. EMD (Part-I), Qualifying Requirement & Techno-Commercial bid (Part-II) and Price bid (Part-III) shall be sealed in one envelope marked Tender Documents (three parts) and shall bear reference to the name of work and NIT. This sealed envelope shall be submitted at the above office within 13.30 Hrs. on 15.11.2013.
- 5.3 The tender may be submitted by post/in person/ through courier service at the above office. Tender submitted by Fax/E mail will not be accepted. Tenders received after the due date and time will not be considered.
- 5.4 All the costs and expenses incidental to the submission of the tender, discussions, conferences, if any, shall be to the account of the tenderer irrespective of whether the tender is accepted or not and WBPDCL will not bear any liability whatsoever on such costs & expenses.
- 5.5 The tender once submitted by a tenderer shall become the property of WBPDCL and WBPDCL will have no obligation to return the same to the tenderer.

6.0 Opening of Tender:

- **6.1** The tenders will be opened in presence of the attending tenderers or their representative at the time & date set for opening of tender as specified hereunder or on the extended tender opening of date and time of tender in case any extension is made thereafter to be notified to the tenderers. Tenderer's authorized representatives(up to two persons) may attend the opening.
- 6.2 The due date and time of opening of EMD (Part-I) & Qualifying Requirement & Techno-Commercial bid of bidder (Part-II) is 14.30 Hrs. on 15.11. 2013. After opening of the main cover, the envelope containing the EMD will be opened first and if EMD of requisite amount in proper mode is found only then envelope containing Qualifying Requirement & Techno-Commercial bid will be opened.
- 6.3 Price Bid (Part-III) of tender of those tenderers who will be considered qualified in Part-I & II by WBPDCL will be opened subsequently at a later date. The due date & time of opening of price bid will be duly intimated.

7.0 Evaluation of Tender:

- 7.1 Issuance of tender document will not be construed to mean that such tenders are automatically considered qualified for the entire tender process.
- 7.2 The WBPDCL reserves the right to accept any tender or reject any or all tenders or cancel/ withdraw the invitation of tenders without assigning any reason for such decision. Such decision by WBPDCL shall not be subject to question by any tenderer and WBPDCL shall bear no liability consequent upon such decision and the tenderers shall have no claim in this regard against WBPDCL.

- 7.3 Evaluation of tender by WBPDCL will be based on the information and documentary evidence Submitted by the tenderers in response to the tender documents. The requirements as stipulated in the tender notice and documents are the minimum and WBPDCL has the right to request for additional information. WBPDCL reserves its right to reject any tender, if in the opinion of WBPDCL the qualification data/documenmtary evidence submitted by the tenderer is incomplete/inadequate or tenderer is found not qualified to perform the work satisfactorily. The WBPDCL reserves the right to reject any tender if the tenderer is found to be disqualified for providing incorrect and/ or false information.
- 7.4 The WBPDCL does not bind itself to accept the lowest tender and also reserves the right to split the work amongst more than one tenderer and also reserves the right to reject any or all tenders without assigning any reason whatsoever.
- 7.5 Notwithstanding, anything stated above or elsewhere, the WBPDCL reserves the right to assess the capability and capacity of the tenderer, should the circumstances warrant such assessment in the overall interest of the WBPDCL.
- 7.6 The WBPDCL at its discretion may terminate the order with one month notice without assigning any reason whatsoever.

Yours faithfully,

(DIPANKAR ROY) Sr. Manager(S&P), BTPS

Qualifying requirement:

The tender must have experience of successfully completed work of maintenance contract for a minimum period of one year at ash handling plant in power station having minimum installed capacity of 450MW and not less than 60MW unit capacity in the following two types of ash handling system:

PLC based dry type fly ash removal through vacuum system and silo along with removal of fly ash in the form of slurry through wet slurry system and bottom ash removal through clinker grinder with hydro ejector. The tenderer should have direct working experience of successfully completion of maintenance or erection work of ash handling plant at coal fired power station for two years. The tenderer should have requisite infrastructure to provide engineering support in exigency for smooth and efficient functioning of the AHP. Self-authenticated credential certificate/order copy from WBPDCL plants/PSU power utilities/Central Govt. organization like NTPC/DVC, engaged in thermal power generation shall have to be submitted by the tenderers in support of having executed the work as defined above during last one year ending last day of month previous to the one in which offers are invited and will complete at least one similar nature of completed work costing not less than the amount equal to 40% of the estimated cost for one year contract or 30% of the estimated cost for two similar nature of job during the three years contract.

"Similar nature of completed work" means undertaking annual maintenance contract for Ash handling Plant of 60MW unit capacity or above comprising of all associated auxiliaries of the ash handling system of a thermal power plant. The bidders must have exposure in the maintenance of ash handling plant having PLC based dry type fly ash removal through vacuum system and silo along with removal of fly ash in the form of slurry through ash slurry pump and bottom ash removal through clinker grinder with hydro ejector and maintenance exposure in handling 3KV HT system as an AMC contractor.

Completed work means" the executed/completed portion of the work order/AMC/RC even if the work has not been completed in totality(subject to furnishing proof of executed value of work in the form of certified copies of RA bill) The bidder must have O&M exposure in handling 3KV HT systems as an AMC contractor.

I. Scope of work (Units 1,2,3 &4) for AHP(Mechanical Maintenance and C&I):

- **1.0** Work and service to be rendered by the contractor for annual maintenance of the wet & dry ash handling system including three Nos. ash water pumps of BTPS Unit No. 1,2,3&4 and station silo of dry ash handling system round the clock shall include but not exhaustive to the following.
- 1.01 All routine maintenance, preventive maintenance, breakdown maintenance and up-keepment of the ash handling plant including ash water pumps, dewatering pumps and removal of technological waste shall be executed by deputing experienced service engineers, supervisors, Technicians, skilled and unskilled labors in such a manner that the ash evacuation and handling system shall be kept available for the normal operating time during operations of boiler/Boilers so that air preheater hoppers, Bottom ash hoppers and ESP hoppers shall normally remain empty. The contractor shall maintain close co-ordination with WBPDCL plant engineers for the routine maintenance activities of the equipment and systems etc. as detailed in the subsequent paragraphs and in the annexure. The contractor shall monitor the performance of different components of the renovated fly ash handling system of the units including unloading from silo and ensuring of adequate measure to overcome or obviate and actual or likely shortfall in the performance.
- 1.02 The contractor shall prepare weekly/fortnightly maintenance programme and submit the same to the controlling officer for every month. The repair/rectification report is also to be submitted to the controlling officer once in every month.
- 1.03 The contractor shall ensure the availability of the standby equipment in good conditions.
- 1.04 A list of spare parts as per supplier's recommendation shall be submitted to the engineer-in-charge sufficiently in advance as far as possible for supply of the same in time.
- 1.05 The contractor shall provide adequate technical back up including periodical visit to the station by their Sr. Engineers.

Part A-Running maintenance:

- 2.00 Carrying out maintenance work of the following equipment/systems connected with ash handling plant.
- 2.01 Bottom ash hopper gates, power cylinders, air/water converter tank and associated valves, hydro pneumatic cylinders, solenoids, etc. to operate the gates, clinker grinders, fluid coupling and reduction gear box, Hopper nozzle, trough seal box, ejectors, associated piping and valves, C&I etc. as required for bottom ash evacuation. Maintenance of ash water pumps and handling of ash water pumps, motors for working on ash water pumps including coupling and de-coupling is to be done.
- 2.02 Fly ash hopper knife gates, adaptors, expansion joints, hopper flanges, hand holes, poking holes with flanges, ash water valves, feeder ejectors, tail pieces, nozzles, flushing apparatus and other equipments connected with evacuation of fly ash from air pre-heaters, ESP & stack hoppers including water piping and valves.
- 2.03 Fly ash and bottom ash, cooling water pump, sump pumps, ash conditioning pump with motors & associated suction NRV & discharge valves.
- 2.04 Slurry discharge piping along with sleeve couplings from hydro vector to ash dyke at discharge point and associated all type of valves at transfer points and C&I etc. Damaged and eroded pipes are to be replaced with new ones as and when required.
- 2.05 415 V MCC's, 220 V AHP DCDB's, Control panels, motors, desks, PLC, shall be under the scope of AHP maintenance contract.
- 2.06 C&I portion of the equipment of the ash handling plants.
- 2.07 Recording of salient readings related to ash handling system of the units daily and submitting the same to WBPDCL concerned Controlling Engineer or his authorized representatives for the scrutiny of the documents. Poking of hoppers if required, assistance in three shift operation like valves handling attending defects during operation of valves, nozzle checking etc. will be done by the contractor.
- 2.08 Running maintenance of all pumps, piping, valves, actuators and transport pipes connected with ash handling system and ash water pumps including lifting of ash water pumps along with handling of all spares and accessories at stores and working site.
- 2.09 Maintenance of all associated control panels, desks. LPB stations and control circuits of the ash handling plants and ash water pumping system along silo system.

- 2.10 WBPDCL shall look after and maintain power supply upto incomer to ash handling plant MCC's beyond that which is within the ash handling system, all equipment shall be maintained by the contractor including electrical connections and disconnections of the electrical motors including their handling, coupling, decoupling and alignment.
- 2.11 Maintenance of all the fly ash slurry disposal pipes and bottom ash disposal pipe lines including sleeve couplings and all types of valve up o the ash dyke including sleeve coupling, all types of valves etc. should be within the scope of the contractor. Maintenance of illumination system of the following areas:
- i)Silo area, ii) Unit No. 1,2,3 &4 FACP, iii) Silo power supply & 1A control room, iv) Ash plant MCC and control room including PCC control room.
- 2.12 In case of breakdown of any equipment, necessary engineering support in exigency will be provided to minimize the down time and to sustain generation.
- 2.13 Necessary repairs of fabrication & modification jobs as and when required for smooth running of the plant.
- 2.14 Maintenance of four Nos. dewatering pumps with motors along with their C&I portion installed in the cable trench sump around bottom ash hopper area. In case of failure of dewatering pumps, temporary arrangement for transport, connection of the portable submersible dewatering pumps have to be arranged.
- 2.15 Necessary arrangement for supply of electric power, lighting, etc. required for maintenance job outside/inside the plant premises where WBPDCL power point is not available are in the scope of contractor.
- 2.16 Necessary guarding of tools, tackles, scrap materials during carrying out of maintenance job inside & outside of the plant premises are in the scope of the agency.
- 2.17 Tit-bit repair of all fly ash hoppers, its inspection doors, etc. are in the scope of the agency. Opening of the manhole doors of hoppers for checking replacement of the fluidizing tiles will be under the scope of the agency.
- 2.18 Replacement of damaged pipes each of about 5 to 12 Mtrs.(200 mm. & 300 mm. dia.) of length of ash slurry disposal lines of Unit No.1,2,3 & 4 up to existing discharge points inside dykes as per scope of work.
- 2.19 Necessary extension of ash slurry transport lines at ash dyke up to max. 100 Mtrs.(approx.) length if required is to be done by the party. This extension is inclusive of the job mentioned at clause No. 2.24.
- 2.20 Transportation of materials from WBPDCL main stores/site stores to work site for carrying out different maintenance activities as indicated in the scope of work are to be carried out by the contractor. For lifting of materials the contractor shall arrange hydra and truck and will be provided by WBPDCL.
- 2.21 Scope of work for mandatory extra job related to maintenance:
- a) Transportation of new pipes from stores to site including loading & unloading and return of damaged pipes to scrap yard.
- b) Decoupling and removal of damaged pipes.
- c) Cutting & welding of new pipes as per requirement, placing in its position and coupling.
- d) All necessary pipes, coupling, gaskets, nuts & bolts will be provided free of cost.
- e) Consumables like welding rods, DA/ Rustoline, penoil, emery papers, cloths, oxygen gas are to be provided by the contractor at no extra cost.

Part-B Preventive maintenance:

- 3.01 Replacement of damaged/eroded pipes of both fly ash & bottom ash disposal lines are in the scope of the contractor. However, if any pipe line of ash slurry disposal line fails in running condition, the same has to be attended on urgent basis to make the system available in the shortest possible time.
- 3.02 Checking/repairing and servicing of bottom ash hopper gates with hydraulic cylinders, piping, valves, solenoids, pressure switches, jet pulsing pump, etc., internal checking/repairing of clinker grinders, gland sealing, fluid couplings, reduction gear boxes, etc., the oil tightness of the filling plug and the fluid coupling should be checked. The fusible plug should be replaced, in case it melts. The servicing of fluid coupling is in the scope of the contractor.
- 3.03 Performance of various pumps, ash water pumps, drain pumps, etc. are to be monitored and if required replacement of damaged spares, bearing, seal, pump impeller, cooling coils, gland packing, pump shaft, pulleys, bushes, coupling, etc. are to be done immediately as per the direction of representative of controlling officer.

- 3.04 (a) Maintenance of all 415 V motors including replacement of bearings& its assembly, fan, fan cover, terminals, etc. along with all control panels as required, shall be under the scope of AHP maintenance contract. Preventive maintenance schedule and report should be submitted in time to time to the controlling officer.
- (b) Preventive maintenance of all C&I portion of AHP, AWP & sump pumps.
- 3.05 The technological wastes from ash handling plant and ash water pump house are to be removed every day throughout the contract period except on national holidays. The contractor is to supply all consumables as per requirement for removal of these technological wastes. The quantity of oil/grease in various pumps, couplings, and gear units should be inspected periodically and maintained strictly as per given oil level marks. Replacements of oil/grease etc. as per recommendation of manufacturer or instruction of Engineer-in-charge and oil seal change for any oil leakage/water leakage etc. are in the scope of the contractor. Weekly report regarding upkeepment duly signed by site Engineer-in-charge has to be furnished to the Engineer-in-charge, WBPDCL.
- 3.06 Cable disconnection, reconnection, termination, jointing etc. at MCC/DC DB incoming end within the entire AHP along with silo system and ash water pumps motor.
- 3.07 Carrying out required routine and preventive maintenance works of the running units. During execution of any routine or preventive maintenance jobs any material handling equipment like crane, etc. as may be required shall be arranged by WBPDCL.
- 3.08 Adequate care shall be taken by the contractor at the work site so that the equipment not coming directly under their scope of work, are not damaged during execution of the contract by them.
- 3.09 Transportation of pumps, valves, actuators, couplings, spares, etc. from site to site or from stores to working site for maintenance works are in the scope of the contractor.
- 3.10 Maintenance of PLCs, control panels including C&I portion of the equipment of the ash handling plant and silo system like pressure gauges, flow switches, level gauges, level switches, power cylinders, solenoid operated pneumatic valves are in the scope of the contractor.
- 3.11Maintenance of MCC/DCDBs their modules, bus bars, LPB stations etc.
- 3.12 Carrying out preventive maintenance of pumps as per WBPDCL preventive maintenance schedule.
- 3.13 Routine checking of PCC transformer along with preventive maintenance done from time to time.
- 4.00 **Terminal points**: Domain of the contractor's work for the Ash Handling plant will be limited within the terminal points specified below.
- 4.01Bottom ash: From collecting hoppers (including trough seals) to the discharge points of the slurry disposal lines up to the ash dyke.
- 4.02 Fly ash: From collecting hoppers outlet flange to the discharge points of the slurry lines up to the ash dyke.
- 4.03 Power supply: Beyond WBPDCL incomer in the ash control room.
- 4.04 Ash water line: Beyond ash water pumps.
- 5.00 Exclusion:
- i) Ash Dyke area management.
- ii) Complete overhauling of ash water pump's motors.

Daily report regarding upkeepment duly signed by the site-engineer in charge has to be furnished.

Part C

6.00 Assisting in Operation (both wet & dry system)

- 6.01 The scope includes all the activities related to assisting in operation of both wet & dry mode of fly ash and bottom ash system along with silo system. Assisting in operation to be carried out round the clock along with rectification of the following equipment/subsystem and the system is to be normalized for smooth operation of the following equipment and accessories:
- i) Silo fluidizing blowers (02 Nos.) with all accessories & pipelines.
- ii) Bag filters & transfer hoppers(02 sets) with all accessories & pipelines.
- iii) Silo with all accessories, i.e. vent filter, vent fan, rotary unloader, telescopic spouts and associated valves, pipes etc.
- iv) Complete control& instrumentation system of the above equipment/sub system.
- v) Tit-bit repair of all fly ash hoppers, its inspection doors, etc. are in the scope of the agency.
- vi) Replacement of damaged pipes each of about 5 to 12 Mtrs(200 mm. & 300 mm.Dia.) of length of ash slurry disposal lines of Unit No. 1 to 4 up to existing discharge points inside dykes as per scope of work which includes extension of ash transport lines up to a length of 100 meters, if required.

- vii) Necessary repair of spares, fabrication & modification jobs as and when required for smooth running of the plant in the scope of the contractor.
- 6.02 Scope of Work for Mandatory extra job:
- i) Transportation of new pipes from stores to site including loading and unloading & to return back the damaged pipes to the stores.
- ii) Removal of deposited ash, De-coupling and removal of damaged pipe.
- iii) Cutting and welding of new pipe as per requirement, placement in its position and coupling / welding it.
- iv) All necessary pipes, couplings, gaskets, nuts& bolts will be provided by WBPDCL free of cost for the purpose.
- v) Consumables like Welding rods, DA/ Oxygen gas etc. are to be provided by the contractor at no extra cost to WBPDCL.

Daily report regarding upkeepment duly signed by the Site Engineer in Charge has to be furnished.

6.03 Maintenance (both wet dry system) of units:

The scope includes all the activities covered under Sl No.1.01 & 1.02 along with maintenance of the following equipment/subsystem.

- i) ESP/Buffer hopper fluidizing blowers (02Nos.) with all accessories & pipelines of each unit.
- ii) Bag filters, Nova with all accessories & pipelines of each unit.
- iii) Silo system with its all accessories e.g. fluidizing blowers, conditioning pumps, unloaded, feeders, vent filters, vent fans etc.
- iv) Conveying compressors.

II. Scope of work for Electrical part under AHP (Elect.) Divn.:

- 1. Carrying out of condition monitoring & routine maintenance of different types of LT motors, LT breakers, MCC panels, lighting transformer panels, heaters. Local push button station etc. related with fly, wet & bottom ash handling system of unit No. 1, 2, 3 &4 along with silo ash handling system of unit No. 1 to 5.
- 2. Trouble shooting of dry & fly ash handling system along with ash silo system of unit No. 1-5 and its rectification includes motors, breakers, heaters, HT/LT cables & related areas.
- 3. In case of any problems/troubles, which cannot be readily attended by the supervisor at site, he shall interact with his units promptly with intimation to controlling officer, BTPS, WBPDCL for setting right the problems, troubles etc. at the earliest possible time.
- 4. Connection & disconnection of the motor, coupling & decoupling and alignment will be done by you from time to time
- 5. Preventive maintenance schedule will be done by you of all electrical drives related with dry & fly ash handling system along with silo system and its associated breakers, control panels, MCC panels etc. and report submitted to the controlling officer from time to time.
- 6. Maintenance of complete illumination system of dry & fly ash handling and silo system with all galleries including repairing & replacement of lamps and other related accessories from time to time as per requirement of the system.
- 7. In case of shutdown the working people of wet ashing system is engaged with dry ashing system and vice versa.
- 8. Special attention should be given to keep all MCCs. Motors, breaker panels, local push button station and all level switch of hoppers of unit No. 1-4 & silo system of unit No 1-5 keep clean & free of dust.
- 9. All level switch must be cleaned within stipulated time period and report submitted to the controlling officer.
- 10. Area near level switch at silo system must be cleaned from time to time and if ash build up near level probe, then necessary action must be taken by the party.
- 11. The service will cover daily/weekly/monthly/half yearly & annual inspection of the equipment. As per approved maintenance manual of OEMs. Routine checkup are to be logged in registers for recording the actions is to be taken and are to countersigned by the controlling officer or his authorized representative.
- 12. a) Spares list for electrical items(proper make with full specifications) to be submitted to the controlling officer in well advance on a regular basis.
- b) Spares for electrical items (including limit switches & solenoid coil) will be supplied by the BTPS. free of cost. However defective/replaced items shall be deposited to the concerned department.
- c) All consumables like DA, Oxygen, Gas, Electrodes etc. will be supplied by you.

- 13. Necessary tools & tackles including 500V/1 KV megger, clamp meter, multimeters, torque range etc. must be available by you at site. In this regards separate electrical establishment must reqd. for smooth maintenance of electrical side.
- 14. Supervisory personnel of the bidder should have minimum diploma in electrical and thorough knowledge of operation and maintenance & experienced personnel should be in the pay roll of the organization. Suitable replacement of supervisory personnel is to be made in the event of absence of regular supervisory personnel is more than three days with prior permission of the controlling officer.

Frequent absence/ change of supervisory personnel should be avoided and may even call for penalty. Frequent change of supervisory personnel and site-in-charge should be avoided. Attendance time sheet of supervisory personnel along with maintenance personnel must be submitted with payment invoice. In case of absence of any of your workers, a lump sum charge of Rs. 150.00 per worker will be deducted from your bill. In case any worker is found not working satisfactorily on a particular day he shall be cautioned by the supervisor. In case the worker continue to work unsatisfactorily even after receipt of verbal caution/warning, he may be withdrawn immediately from the job and a penalty of Rs. 150.00 per head per shift will be deducted from your bill.

- 15. Dis-obedience/indiscipline attitude of any worker will not be tolerated.
- 16. Your worker shall not leave working site without prior permission of the site-in-charge. In case any worker leaving working site without prior permission, a penalty of RS.150.00 per head will be imposed and will be deducted from your bill.
- 17. In case you shall failed to undertake any job and if the same is to be done through outside agency, the cost involvement for deploying other agency, will be deducted from your bill.
- 18. Recording of hourly readings/log sheets of date wise has to be submitted to the controlling officer or his representative.
- 19. Oil level to be topped up of silo transformer set whenever required after testing of oil by R&I department.
- 20. Lifting of cores of defective transformer sets are to be done whenever required to facilitate testing work and then box-up.
- 21. Overhauling schedule must be prepared from time to time at the time of overhauling period and supervise the total job at the time of overhauling.
- 22. All workers related with elect maintenance job must strictly follow the safety rules of our safety department and if found not maintained at site then necessary action must be taken by department.
- a) Round the clock maintenance of ESP system of BTPS of Unit No. 1 to 4
- b) Routine maintenance work
- c) Break down maintenance work.
- d) Annual maintenance work.
- e) Capital and **Short term** overhauling work.

The scope of work of this contract shall include maintenance required for efficient and reliable running of this total ESP system to achieve SPM level within statutory limit **round the clock.** This includes responsibility of designated Engineer of the vendor. Vendor should have to depute Site-in-charge, with total responsibility, who will report to the Controlling Officer or his authorized representative.

III. Scope of work for maintenance of ESP System:

- 1. In case of any problems/troubles, which cannot be readily attended by the supervisor at site, he shall interact with his units promptly with intimation to Controlling Officer WBPDCL, BTPS for setting right the problems, troubles, etc. at the earliest possible time.
- 2. A weekly performance report of ESPs for Units 1,2,3,4 with control point zero point readings certifying performance of all the five Monitors duly signed by your authorized Engineer and checked by concerned engineer of PCI Department and should be submitted to the Controlling Officer, particularly to The Sr. Manager (O&M) AHP, BTPS (He is the Nodal Officer) and to The Sr. Manager (PCI), BTPS.
- 3. Regarding Opacity Monitor of Unit No. 1 to 4, the regular and general maintenance shall include only lens cleaning and blower motor check-up under your supervision on daily basis. In case of failure of any instrument the same shall be reported then and there to WBPDCL, BTPS and necessary rectification work shall be taken up by the party.

- 4. Identification of the problems/deficiencies, repair, testing, calibration of all controllers installed for Unit Nos. 1 to 4 which were supplied by M/s. Andrew Yule & Company Limited, CASLET & M/s. BHEL shall remain entrusted on you and WBPDCL will not pay charge for this job.
- 5. You will be solely and wholly held responsible for any accident that may occur to your employees during continuance of the work and must pay proper compensation for the same as per Workmen's Compensation Act. You will keep the WBPDCL safe and harmless and indemnify all claims and expenses for any such damage or injury to any person. You will have to take adequate Insurance Policy at your own cost so that the workers provided are sufficiently covered against result of any accident.
- 6. Any Labour of minor age shall not be employed in the work. "Statutory Minimum Wages" for unskilled labour is to be paid.
- 7. The contract may be terminated by giving 30(thirty) days' notice from either side.
- 8. Accommodation to the workers may be provided at the WBPDCL premises on chargeable basis, if available.
- 9. <u>Vendor has to deploy experienced qualified Technicians, Electricians. Number of heads to be deployed with designation should be clearly mentioned.</u>
- 10. In case of emergency one no expert may be deployed as and when required.
- 11. Cleaning of all the lens of the Pollution monitoring transmitters on daily basis, monitoring and recording the sane SPM value in the daily log sheet, weekly report of lens cleaning process has to be reported to the Manager (PCI) in a proper format.
- 12. Trouble shooting of ESP system of unit 1 to 4 concerned opacity monitors and its rectification including associated electronics indicators, recorders, blowers' motors of associated cable.
- 13. Checking of Zero of Control points should be made at least once in a week by precision multi-meter, if any deviation from set value found must be rectified immediately. Any failure under the C&I system must be rectified within seven days otherwise it will invite penalty (as per penalty clause)
- 14. The service will cover daily/weekly/monthly/half-yearly annual inspection of the equipment as per approved (O&M) Manual of OEMs. Routine checkups are to be logged in Registers for recording the actions is to be taken and are to be counter signed by the Controlling Officer or his authorized representative.
- 15. During isokinetic testing for measurement of SPM in flue gas by Pollution Control Board/approved agency for all the units 1 to 4, Contractor's personnel must take meter readings including coddle meter.
- 16. When any of the Units will remain under Shutdown, the Technicians of that particular Unit will undertake shutdown/Breakdown maintenance work in the General Shift and in extra hour beyond General shift if necessary as per instruction of Controlling Engineer. Shutdown maintenance must be completed within the scheduled shutdown period. In doing so, if extra manning/extra hour is required to maintain the schedule to be deployed/continued with no extra cost from B.T.P.S.
- 17. Normal ESPs maintenance will be done by you during unit shut down like ESPs door opening,
- (a) Field grounding, replacement of broken wires, cleaning of insulators opzal plates etc. including cleaning of accumulated ash from the hopper, replacement/repair of drive insulators support insulators, all types of heaters, earth switch assembly, replacement of rapping motors, Plummer block, G.D. Screen breaking of clinkers from all hoppers of ESP's and removal of ash build up from inside wall of hoppers and finally cleaning of all rubbish's from inside of all the fly ash hoppers of ESPs etc., rectification of the damaged component as found defective during inspection will be done by you while unit remain shut down etc.
- (b) During shut down of a Unit all mechanical parts e.g. G.D. Screen, Rapping Hammers, Gear boxes, bearings etc. and electrical items within ESP must have to be checked at the earliest opportunity, a report to be submitted.

- (c) All overhauling job to be taken up without extra cost.
- (d) Satisfactory job completion to be reported.
- (e) Spares list to be submitted upto-date on a regular basis.
- 18. Utmost care must be taken by you at the work site so that the equipment not coming directly under your Scope of Work are not damaged during your performance of this contract.
- 19. Spares materials will be supplied by the BTPS free of cost.
- All tools and tackles are to be supplied by you as per requirement of the job. Separate welding machine (3 nos.) including welding accessories is required as per requirement of welding during maintenance of individual units.
- 20. You will, from time to time, remove all the rubbish resulting from execution of the work. Adjacent streets and drive ways shall be kept clean and un-obstructed at all time.
- 21. The entire maintenance work shall have to be carried out under technical advice/guidance of the designated Engineers of the agency.
- 22. Maintenance of hoist at the roof of all ESP Unit 1 to 4 shall have to be look after and periodical checking and testing will have to carry out in presence of authorized agency. All necessary materials will be supplied by WBPDCL.
- 23. Special attention should be given to keep the control panel clean and free from dust.
- 24. Minor maintenance of MOCI (Rapper Control), other related panels, transformers etc. are also to be carried out (including testing, if necessary).
- 25. Maintenance of Electronic Controllers and Rectifier Transformers, all types of ESP heaters, like shaft, support insulators including hopper heaters, all types of rapping motors including complete overhauling, (cleaning, heat varnishing and change of bearings) from time to time.
- 26. Complete illumination system of ESP Unit 1 to 4 galleries including repairing and replacement of lamps and other related accessories from time to time as per requirement.
- 27. Oil level to be topped up of transformer set whenever required after testing of oil by R&I department (Oil will be supplied by WBPDCL).
- 28. Lifting of cores of defective transformer sets are to be done whenever required to facilitate testing work and addition to above following aspects has also to be adhered too.
- 29. Lifting & shifting of materials should be done by the party from main/ site store to working site.
- 30. Any scrap materials after carried out of Shutdown & Breakdown work, shifted to scrap yard as per instruction of controlling officer, BTPS.

Annexure-III

- 1.00 A list of major equipment and auxiliaries of ash handling plant including ash water pumps, Dewatering pumps of BTPS unit No 1,2,3 & 4(4X60 MW) under the contractor's scope of work:
- i) Bottom ash hopper having eight hours storage capacity having one bottom hopper inner gates with hydraulic operated gates and one manual outer gates, four clinker grinders with fluid coupling, gear boxes, four air/water converter pressure tanks with associated piping and valves. Trough seal and bottom hopper make up and overflow lines & weir box. Four ash transport lines with coupling etc. bottom ash slurry sump running in a pipe trench.
- ii) Vertical sump pump in drain pits: One pumps per unit, capacity-100Cu.M/hr., Head-10MWC, motor rating-8KW.
- iii) Horizontal seal water pumps: 2(two) pumps, capacity-35Cum/hr., head-120MWC, motor rating-22KW
- iv)AHP hoppers: Four per unit connected with FA evacuation system.
- v) ESP hopper: 8(eight) hoppers per unit 1 to 3 & 6 hopers in unit No.4, ash slurry is formed with the help of jetting type nozzles at hydro vector tower. The ash slurry formed is led through pipes. Thereafter the slurry is transported by gravity to ash pond.
- vi) 300NB fly disposal lines up to ash dyke: Total two Nos. with bottom / fly change over valve, length-approx. 3 KM. The pipes have couplings after approx. every 6 meter long pipe.
- vii) Ash pond: Two Nos. (only up to ash dyke starting from AHP inside plant).

viii) Ash water pumps: Three Nos., capacity-550M³/hr., head-180MWC, motor rating-300KW.

ix) Electrical and C&I: Control desk panel, pressure gauges, flow switches, radar type level transmitter, level gauges, level switches, etc., Ash M.C.C.: Two Nos. per unit(one No. main ash control panel cum desk including PLC per unit & one No bottom ash local control panel per unit and MCC with control desk along with PLC unit at silo control room), Power and control supply cabling network, earthing system, LPB stations, lighting network of ESP hopper area, ash slurry pump house,

ash water pump house, Ash MCC and control rooms including associated SLDBs, junction boxes, cabling, conduits,

receptacles, lighting fixtures with gear boxes.

1.	ESP fluidizing blower.	08(eight) Nos	Type: 55AC TL compressor,
2.	Silo fluidizing blower.	02 (two) Nos.	Make: KAY International Pvt. Ltd.,
3.	Clinker crusher.	04 (four) Nos.	Type: 78 AC TL compressor,
4.	Orifice feeder(dry).	02(two) Nos.	Make: KAY International Pvt. Ltd.
5.	Rotary feeder(spray).	02(two) Nos.	
6.	Silo vent fan	02(two) Nos.	Сар-60ТРН,
7.	Un loader feeder vent fan.	02(two) Nos.	Power-3.7KW, Speed-58 rpm,
8.	Silo	02(two) Nos.	1100 MT

3.00 Major equipment list electrical& mechanical for Unit No. 1 to 4:

Sl. No.	Equipment	Quantity	Specification
1.	Conveying compressor.	08 (eight) Nos.	Make: M/S Kay International,
2.	Instrument air compressor.	02 (two) Nos.	Type: WCLT compressor,
3.	Air drier.	01(one) No.	Capacity: 4830 M ³ /hr.,
4.	Seal water pump	02 (two) Nos.	Motor: 200KW, 1488 RPM,
5.	Gear box.	04(four) Nos.	Cooling water pr.: 1.5 kg/cm ² ,
			Make: Delair India Pvt. Ltd.

4.00 Major equipment for silo system of unit No.1 to 4 & silo:

Sl. No.	Equipment	Quantity	Specification
1.	Conveying compressor.	08 (eight) Nos.	Cap.:934 CFM, Disc.Pr.:1.1 bar,
2.	Vent filter.	02 (two) Nos.	Power: 275 KW.
3.	Vent fan.	04(four) Nos.	
4.	Buffer hopper	04 (four) Nos.	
5.	Bag filter.	02 (two) Nos.,	
6.	Silo fluidizing blower.	04 (four) Nos.	Cap.:370M ³ /hr., Head:420MWC
7.	Ash conditioning pump.	02 (two) Nos.	Cap.:25M ³ /hr.(5.5 KW),
8.	Rotary un loader.	04(four) Nos.	Cap.: 100 T/hr.,
9.	Orifice feeder.	02 (two) Nos.	Cap.:120 T/hr.,
10	Cooling water pump.	03(three) Nos.	Cap.:110M ³ /hr.,
11.	Silo.	02(two) Nos.	1100 MT each,
12.	Retractable chute.	02(two) Nos.	40T/Hr.,100T/hr.

Sl. No.	Catagory	Educational qualification	Work Experience
01	Site-in-charge	Diploma in Elec./Mech. Engg. from a recognized institute	Min. five years of experience as a site-in-charge of ash handling plant of a thermal power station having installed capacity of 350(4x87.5) MW. The attested photocopy of the certificate regarding the requisite qualification and experience should be submitted to Sr. Manager, AHP(O&M)
02.	Engineer(Elec./Mech/C&I)	Diploma in Elec./Mech./C&I Engg. From a recognized institute	Min. two years of experience in ash handling plant(wet & dry) of a thermal power station having unit capacity not less than 87.5MW. The attested photocopy of the certificate regarding the requisite qualification and experience should be submitted to Sr. Manager, AHP(O&M)
03.	Supervisor(Elec./Mech./C&I)	ITI in Elec./Mech./C&I from a recognized institute	Min. five years of working experience in thermal power station having unit capacity not less than 87.5MW. The attested photocopy of the certificate regarding the requisite qualification and experience should be submitted to Sr. Manager, AHP(O&M)
04.	Technician	ITI in Elec./Mech./Inst. from a recognized institute	Min. two years of working experience in Ash handling plant of large thermal power plant of unit capacity not less than87.5 MW. The attested photocopy of the certificate regarding the requisite qualification and experience should be submitted to Sr. Manager, AHP(O&M)
05.	Fitter	ITI in Mech. from a recognized institute	Min. two years' experience in Industry. The attested photocopy of the certificate regarding the requisite qualification and experience should be submitted to Sr. Manager, AHP(O&M)
06.	Unskilled Worker		Available experienced unskilled workers engaged at site are to be deployed subject to confirmation by HR&A

2.00 Tender validity period

The tender shall be valid for 90(ninety) days from the date of opening.

Special Terms and conditions:

- 2.01 You will have to follow and observe the safety & statutory requirements.
- 2.02 You will have to fully responsible for any sort of unsafe activity of your workmen.
- 2.03 All working personnel should have proper safety certificates issued by BTPS before start of work.
- 2.04 Supervision of the work has to be carried out by the agency.
- 2.05 All the working tools & tackles, men, material, welding machine, etc. safety appliances like safety helmet, safety boot, hand gloves and personnel protection equipment(PPE) like ear plugs, masks are to be provided to the labours by you at your own cost. All safety appliances of reputed make are to be provided by you for your workers in presence of Sr. Manager (HR&A) & safety officer of BTPS or their authorized representatives. The list and make of safety appliances may be obtained from safety officer.
- 2.06 Work is to be carried out as per instruction& satisfaction of the controlling officer/officers or his representatives.
- 2.07 Rates are to be quoted on firm price basis. Any conditional offer is liable to be rejected.
- 2.08 Liquidated damages:
- a) The contractor shall guarantee that the ash handling system of unit No1, 2, 3 &4 along with silo handling system shall be kept available for at least 90% of the normal operating time. During operation of boiler, bottom ash hopper, ESP, APHs, Eco. Duct hoppers shall normally remain empty. Due to reasons exclusively attributable to the contractor for which generation gets affected a penalty.@ Rs.10,000/- per day per unit shall be charged per 24 hours counted from the time the availability of the ash handling system is below 90% of the operating time during operation of Boilers. The above is, however, subject to force majeure conditions as defined in WBPDCL's GCC for execution of work.
- b) For maintenance activity, for each break down and preventive maintenance work, a mutually agreed time frame will be fixed on each occasion and if the contractor fails to complete in that time for reasons not attributable to WBPDCL, a suitable penalty will be imposed @0.5% per day per unit per 24 hours counted beyond the agreed time of the monthly contract value per unit limited to maximum of 10% of monthly bill. The above is, however, subject to force majeure conditions as defined in WBPDCL's GCC for execution of work.
- 2.09 Violation of safety will be penalized as per annexure attached for safety.
- 2.10 safety of the workmen will be entirely the responsibility of the contractor. In case of any work injury, major or minor, the contractor or his representative will have to provide the medical aid. Adequate medical care is to be provided by the contractor, cost of treatment will be of contractor's responsibility.
- 2.11 Contractor will produce medical fitness certificate for his workers prior to clearance for working at height. Hight passes to be obtained from safety department.
- 2.12 You will have to strictly adhere to the provision of various labour laws.
- 2.13 Offer is to either type written or by hand written and in no case party type written and party hand written. No corrections, overtyping shall be permitted. If so, the same shall be summarily rejected.
- 2.14 Tenders shall be accompanied by a copy of PAN, Commercial Tax clearance certificate, Sales Tax return certificate, VAT, Service Tax No. and solvency certificate from the Banker of the individual/party/Firm/Company submitting the tender.
- 2.15 Paying Authority: Sr. Manager (F&A), BTPS. Bill in triplicate duly receipted on the revenue stamp with certification by the controlling officer will be required for processing of the same.
- 2.16 Tenderers shall quote their firm rates.
- 2.17 In accepting the order you are understood to accept to all responsibilities for completing the work in all respect.
- 2.18 Where a claim of service tax is preferred and admitted, the supplier must satisfy that he is a registered dealer under service Tax Act. and possesses a certificate of Registration in the firm's name in which the service is made and shall in proof thereof, while submitting bills for payment, furnish the number date and other particulars of such certificate.

2.19 Security Deposit: The successful tenderer will have to deposit as security, for satisfactory execution of the work order, an amount equivalent to 10% of the total value of the order in any form, Bank Draft/Bankers cheque in favour of the WBPDCL, BTPS within 30 days of placement of work order. The expression satisfactory execution of the order shall mean fulfillment of all obligation arising out of and the guarantees stipulated in the contract. In default at satisfactory execution of the order the security deposit shall be forfeited to the BTPS.

Any penalty for which the successful tenderer shall be found liable or any liquidated damages which shall be payable to the BTPS in terms of the work order/contract, shall also be recoverable by the WBPDCL from the security deposit. If such security deposit will not be adequate for the purpose of liquidating the amount of penalty and /or damages as contemplated, the amount in excess thereof shall be deducted from any sum or sums which may be due or may become due to the successful tenderer from WBPDCL on any account whatsoever. Notwithstanding what has been stated above if the successful tenderer shall have duly performed all his obligation under and the guarantees stipulated in the work order/contract and observe all the terms and conditions thereof and no penalty shall have been recoverable from him and/or the BTPS shall not have suffered any damages whatsoever, then secutity deposit shall be refunded, on receipt of a certificate from the controlling officer that there is no claim against the successful tenderer under the work order/contract.

- i) The parties should clearly indicate their prices firm in all respects till execution of the work order.
- ii) In case of asking any variation on any account whether raw materials or sales tax or service tax, excise duty or transportation, etc. will not by treated as firm price on that account and hence parties should state everything clearly. Special instruction: Tenders must signify their willingness to submit security deposit. Tender will be opened onat 03.30 PM. If it is declared a holiday by BTPS then in the next working day in the presence of Tenderer's authorized representatives, who wish to be present.

General:

- i) The tender rates shall be neatly typed in English, in both words and figures. In the case of any discrepancy between the words & figures of the rates quoted, the rates expressed in words shall be taken as correct. In the case of discrepancy in the unit rate and amount, unit rate will govern. Erases, changes and corrections of whatever type/nature shall be attested by the tenderer. The rates amount shall be written in Rupees and paise only. The rates in words shall be written in one single line only without admitting any interpolations.
- ii) All pages of the tender documents, conditions, specifications, drawings, etc. Shall be initiated at the lower left hand corner and signed wherever required by the tenderer before submission of the tender.
- iii) If the intending tenderer is a firm or company, then they shall in the forwarding letter mention the number and names of all the partners shall sign before submitting the same unless the power of attorney holder has specifically been authorized in this respect.
- iv) If any tenderer withdraws his tender before its acceptance or refuses within a reasonable time without giving any satisfactory and acceptable explanation thereof, the tenderer shall be disqualified for making any tender of the BTPS for a minimum period of one year and the earnest money will be forfeited.
- v) In case the date of tender opening happens to be holiday, the tender will be opened on the next working day at the same time.
- vi) Any conditional offer or offer having deviations from our specification & instruction sheets is liable to be rejected.
- vii) WBPDCL reserves the right either to reject any/all the tenders without assigning any reason thereof.

1.00 Terms of Payment:

a) 95% payment at the applicable rate will be made after completion of work for the preceding month as certified by the controlling officer, WBPDCL and on presentation of running bills in triplicate duly pre-receipted in original. Balance 5% will be paid in the succeeding month, if no damage is observed in the working system. In case of any damage occurs as may be reported by any of the controlling officer, the said amount will be adjusted from the deposit.

2.00 Price Details:

- a) Compulsory jobs: Clear and explicit price details on monthly basis for contract period of twelve months shall be quoted by the bidders for compulsory jobs. The price will remain firm for the entire
- period of the contract. Bids will be evaluated on the basis of the sum total of prices quoted against 2 (a) above.
- 3.00 **Rebate**: A rebate @ 25% on the monthly maintenance charges shall be given by the contractor in case of long shut down of the unit beyond 30 days due to any reason. The rebate shall be effective after the month of unit outage. However rebate value will be settled amicably after discussion between BTPS authority and the party.
- 4.00 **Security Deposit**: 10% of the work order value shall be deposited by the contractor as security deposit-cum performance guarantee in the form of Bank guarantee (BG) in the prescribed format of BTPS from any Nationalized Bank/ Schedule commercial Bank valid till expiry of contract period with a claim period of another six months from the date of completion of the contract. The BG shall be submitted within 30(thirty) days from the date of receipt of W.O. If the contractor fails to fulfill the agreement of the contract their claims whatsoever, including BG as S.D. shall be forfeited.
- 5.00 **Contract Period**: The contract period shall remain valid for a period of one year with effect from the actual commencement of work. The contract may be extended for a further period of three months at the same rate and terms and conditions subject to satisfactory performance of the contractor in the first year to be evaluated by BTPS authority. Site mobilization should be done within a period of maximum one week from the date of placement of work order.
- 6.00 **Termination of Contract**: WBPDCL reserves the right to terminate the contract at any stage due to unsatisfactory performance by the contractor at the discretion of WBPDCL without assigning any reason thereto.
- 7.00 **Penalty**: a) The contractor shall guarantee that the ash handling system of unit No 1, 2,3 & 4 shall be kept available for at least 90% of the normal operating time. During operation of Boiler, Bottom ash hopper, ESP, AHP's, Eco. Duct hoppers shall normally remain empty. Due to reasons exclusively attributed to the contractor for which generation gets affected a penalty @ Rs. 10,000.00 per day per unit shall be charged per 24 hours counted from the time the availability of the ash handling system is below 90% of the operating time during operation of Boiler's. The above is, however, subject to force majeure conditions as defined in WBPDCL's GCC for execution of work.
- b) For maintenance activity, for each break down and preventive maintenance work, a mutually agreed time frame will be fixed on each occasion and if the contractor fails to complete in that time for reasons not attributable to WBPDCL, a suitable penalty will be imposed @0.5% per day per unit per 24 hours counted beyond the agreed time of the monthly contract value per unit limited to maximum of 10(ten) % of the monthly bill. The above is, however, subject to force majeure conditions as defined in WBPDCL's GCL for execution of work.
- c) In case the contractor fails to execute the job up to the satisfaction of the controlling officer or shortage of tools & tackles, penalty@ 5% Max. of the monthly bill may be deducted as per discretion of the controlling officer. Absence of Site-in-charge for more than two days will attract deduction of payments by 1% of monthly bill for each day after 3rd day. If unit outage is frequent due to non-functioning of AHPs or maintenance is not satisfactorily for more than seven days at a stretch, 10% of monthly bill may be deducted for negligence.

The work exposure in PLC based dry type fly ash removal through vacuum system and silo along with removal of fly ash in the form of slurry through ash pump is mandatory.

For the purpose of evaluation the total contract value wherein work value in the above scope may constitute a part or the whole shall be reckoned to one similar nature of work costing not less than the amount equal to 30% of the estimated cost. Apart from submitting the self-authenticated credential certificate/order copies, the bidders should fulfill the following:

- 01) i) Average annual turnover (AAT) of the participating firm during last three years ending 31st March'12must be at least 30% of the estimated cost of the tender.
- ii) Submission of solvency certificate from their Banker clearly indicating the amount up to which the firm is solvent to execute contract.
- iii) Annual accounts of preceding three financial years along with profit & loss account and balance sheet.
- iv) Overall profitability and cash profit as certified by Auditor.
- v) Submission of valid documents indication status of the organization (i.e. proprietorship/partnership firm/ public limited company, etc.
- vi) Submission of EPF /ESIC registration certificate of the firm.
- All the self-authenticated documents shall be furnished by the tenderer along with techno-Commercial bid of the offer
- 02) The contract shall be executed as per the scope of work covered under Annexure-II but any other activity not envisaged/ covered in the scope but essentially required for completeness of execution of the contract shall be in the scope of the contractor without any extra cost to WBPDCL.
- 03) The contractor shall execute an agreement in prescribed form of the WBPDCL on a non-judicial stamp paper of appropriate value. The terms & conditions as mentioned in the tender document is inseparable part of this NIT. The contractor has to execute an agreement as per the format.
- 04) a) All spares, consumables like gaskets, fasteners, lubricants like grease, oil, chemicals, electricity & water, refractory materials, structural steels will be supplied by WBPDCL free of cost. The contractor will submit a list of spares required with specific program well in advance. However, consumables like diesel, rustoline, waste cloth, lapping paste, jute, emery papers, welding electrodes, etc. shall be supplied by the contractor as per requirement at no extra cost to WBPDCL.
- b) Consumable like 02, DA and different type of welding electrodes are in the scope of the contractor.
- 05) All tools, tackles, viz chain pully block lifting equipment, winch, wire rope, grinding machine, buffing machine, sling etc. including welding machine Generator Transformer & single phase portable welding machine, welder that may be essential to execute the job shall be arranged by the contractor at no extra cost to WBPDCL. Single phase welding machine may be required where 3 Phase connection is not available. Portable diesel generator machine will have to be provided by the contractor for carrying out maintenance job inside& outside the plant where supply could not be arranged by WBPDCL.
- 06) Unskilled and semi-skilled workers required to execute the contract shall be engaged by the contractor from local area to the extent possible.
- 07) Work shop/laboratory facilities as available at BTPS will be extended to the agency for machining/calibration of instruments exclusively used to execute the subject job.
- 08) The contractor shall submit a list of workers engaged in the job during the first week of every month along with detailed address of each worker.
- 09) Removal of technological waste generated during execution of works shall be in the scope of the contractor. The party should remove all the technical waste after each maintenance and operational activities to keep the place clean and according to the satisfaction of WBPDCL Engineers within 3(three) days after completion of work, failing which WBPDCL will clean the place at their own cost and necessary deduction at the 'rate of double of original cost' will be deducted from the monthly bill of the party.
- 10) Internal telephone facilities for local calls will be provided by WBPDCL free of cost to the contractor for effective communication towards execution of the job. However, the contractor must maintain mobile phone for better communication.
- 11) Medical facilities as available at WBPDCL will be extended to the extended to the employees/workers of the contractor on payment basis at the prevailing rate applicable to an outsider.
- 12) Accommodation to visiting Engineers of the contractor will be provided in BTPS guest house, on payment basis at the prevailing rate applicable to an outsider subject to availability.
- 13) Unfurnished office space with water & electricity will be provided to the contractor free of cost.

- 14) Unfurnished residential accommodation with water & electricity for Engineers/Staff of the contractor will be provided subject to availability on payment basis at the applicable rate.
- 15) Crane and trailer facility is to be provided by the contractor at no extra cost to WBPDCL.
- 16) Compressed service air as required for execution of the job will be provided by WBPDCL free of cost at certain specific locations.
- 17) EPF/ESIC provisions for the workers will be made by the contractor as per rule. Relevant documents regarding EPF/ESIC for the workers of the contractor shall be submitted to the WBPDCL authority before executing the agreement.
- 18) The contractor shall be solely and wholly responsible for safety and security of workers engaged in the job and the WBPDCL property. In case of any accident the contractor shall pay proper compensation to the workers as per workmen's compensation act and repair/replace WBPDCL property at their own cost & arrangement.WBPDCL will have no responsibility, whatsoever and will be kept fully indemnified and harmless in this regard. The contractor shall also make adequate provision of insurance for their workers at their own cost to cover them against the risk of accident.
- 19) The contractor and their workers engaged in the job shall follow all safety rules at the time of execution of work. It shall be responsibility of the contractor to supply all safety equipment as necessary to its O&M staff without any extra cost to WBPDCL. All statutory rules& regulations as applicable as per workmen's compensation act shall have to be followed by the contractor while engaging/retrenchment of the workers/employees.
- 20) The contractor shall comply with all laws, rules & regulations of the land including but not limited to i) Labour rules & Acts, ii) Factories Act, iii) Minimum wages Act, iv) Payment of wages Act, v) Bonus Act, vi)EPF and miscellaneous provision Act, vii) Contract labour (Regulation& Abolition) Act as in vogue or comes into vogue from time to time during currency of the contract. WBPDCL will be kept indemnified against any claim arising out of non-compliance of such Acts/rules.
- 21) As the plant site of BTPS is a protected area necessary gate pass of every worker shall be arranged by the contractor with proper intimation to WBPDCL as per rule. The expenditure of photograph required for gate pass shall be borne by the contractor.
- 22) In case of subletting the contract, the sub- contractor shall be engaged with proper approval of WBPDCL at full risk of the contractor.
- 23) If WBPDCL authority engages any other agency to complete any outstanding/leftover job assigned to the contractor all the expenses thus incurred to complete the job shall be borne by the contractor.
- 24) The contractor shall not pay less than minimum wages to the workers under the minimum wages Act and the Govt. rules made there under subject to revision from time to time. The payment will be made to the worker in presence of the authorized representative of the personnel department. The monthly payment is to be made on the 10^{th} day of successive month. The contractor may change the place and time of payment to his workers under intimation to the personnel department of WBPDCL.
- 25) During execution of the contract as well as after expiry of the contract period the contractor shall ensure that none of their employees/workers claim employment in WBPDCL.
- 26) Legal suits arising out of the contract, if any, are subject to the jurisdiction in the court of the city of Kolkata in India and no other court elsewhere.
- 27) Necessary shifting of materials from store to work site is to be done by the agency at the agency's own cost.
- 28) The successful bidder must have adequate resources to undertake overhauling jobs of at least two units at a time apart from carrying out routine maintenance & operational jobs of remaining units. They should have adequate resources to mobilize the site for carrying out five to six jobs simultaneously without any delay.

(Miscellaneous Terms and Conditions)

1. Labour Legislations & Regulations.

The contractor shall comply with statutory labour legislations & regulations applicable for deployment of labour. Some of the important labour legislations are appended here under:

- i) Contract labour(R&A) Act, 1970.
- ii) Payment of minimum wages Act, 1936.
- iii) The Factory's Act, 1948.
- iv) The employees' Provident fund & Misc. Act, 1952.
- v) ESI Act. 1972.
- vi) Industrial Dispute Act, 1948.

The above list is not exhaustive. The prevailing law of the land shall invariably be applicable.

2. **ESI & P.F**.

The contractor must posses provident fund & E.S.I. Code Nos. for enrolment of the workmen to be inducted as per standing norms of the WBPDCL.

3. Engagement of unskilled workers

The unskilled workers have to be inducted amongst the retrenched pool of contract workers of BTPS as per standing rules.

4. Idle labour charges

The WBPDCL shall in any way not be responsible for payment towards idle labour charges under any circumstances.

5. Safety of working personnel

The WBPDCL management shall not in any way be responsible for safety of the workmen and ensure that necessary safety precautions have been adopted by the workmen.

6. Accident in course of on duty of employment

In case of accident of any working personnel, the contractor shall take all necessary steps for providing medical assistance and treatment. The WBPDCL shall in no way be held responsible to compensate the contractor's workers be it on duty or not. No benefit from the WBPDCL in any form shall be admissible in such case.

7. Non-admissibility of canteen facilities.

Canteen facilities shall not be extended for the working personnel of the contractor.

8. Discontinuation of the job.

In the circumstances of discontinuance of job within the contractual period, The WBPDCL shall have the right to award part or full job to any other agency and the cost incurred there of shall be realized from the contractors account.

9. Sub-contract

The contractor is not at liberty to sub-contract any part of full job without concurrence of the controlling officer.

10. Payment of Workmen.

The contractor shall not have liberty to enhance wages without prior concurrence of The WBPDCL, in case of unskilled labours. Similarly, the contractor shall remain responsible to make payment of wages to the workmen within 10th of the month after termination of the wage period. Monthly acquittance roll along with documentary proof containing payment of E.S.I. and P.F. distributions with the appropriate authorities shall have to be deposited to the controlling officer progressively and regularly. Also the contractor concerned is to abide by the stipulations contained in the O/O No. 73/2002, Dtd. 23.09.2002 of the GM, BTPS. The vendors may be competent enough to take burden of two months wages payment to the workmen if due to any reason the bill is not processed in time for release of payment, whatever may be the reason behind it. Any statutory wages hike may be reimbursed to the contractor for payment to the workers under the contract.

Checking and corrective measure.

The controlling officer or his authorised representative may check/ examine any of your tools/scaffolding/working conditions, etc. and if unsatisfactory performance is ascertained, the job may temporarily be suspended till corrective measure is taken from the contractor's part.

The contractor will have to furnish a list of persons engaged by him to the controlling officer prior to commencement of work. All working personnel will be male adult workers.

The contractor will be solely and/or wholly responsible for any accident that may occur during the progress of work and for any injury of persons or property of any description whatsoever, and will be liable to pay any compensation as per law. You shall keep the WBPDCL saved, harmless and indemnified against all claims and expenses for any such damages or injury to any person or property of the WBPDCL.

For working within the plant area, the contractor will have to obtain gate pass from the security department (through the controlling officer) for each and every working personnel, cost of which will be borne by him.

The contract may be terminated at the discretion of the WBPDCL authority on giving one month notice in writing without assigning any reason. For this, no claim whatsoever, will be entertained by the authority. If in the opinion of the controlling officer, any act on the part of any employee of the contractor is considered undesirable either due to incompetence or insubordination or otherwise, he will have to withdraw the employee/employees un-conditionally and the same person will not be reengaged during the tenure of the contract.

If, in the course of implementing the contract, any item is considered necessary, but is not covered by the annexed schedule of items, the additional job will have to be performed by the contractor at a rate mutually agreed with.

ANNEXURE- E

(SAFETY CLAUSE TO BE INCORPORATED IN MAJOR WORK CONTRACTS) Contractors Responsibility

- 1. Contractor shall be vigilant to ensure provisions of factories act, 1948 and other statutory provisions as applicable in respective power plant.
- 2. Contractor's responsibility is to collect copies of prevailing rules from safety department of the plant.
- 3. Contractors must ensure use of personal protective equipment by its workers:
 - a) Personal Protective Equipment to be supplied by the contractor to their workers must be approved by safety department of the plant before commencement of work, the contractor is to indicate the cost of PPE included in his offer
 - b) Although the responsibility of providing PPE rests on the contractor, as per terms of contract, but still the contractor/contractors fail/fails to provide the same, plant authority may issue PPE to these workers in the interest of work and the cost of the same will be deducted from the contractor's bill. Safety department will issue such PPE with intimation to O&M department and the contractor for necessary recovery of the cost.
- 4. The contractor shall ensure periodic testing /examination of equipment as well as safety tools & tackles used by them, as per provision of Factories Act and rule & maintain the up-to-date record for the same at site for inspection of departmental Engineer/Safety department on demand.
- 5. The contractor will ensure medical examination for its workers who are working at hazardous areas before commencement of work and once in every year by qualified medical practitioners as per provision of the factories act, 1948 and WB Factories rule and maintain a register for the same for inspection by respective Operation and Maintenance department/safety department on demand.
- 6. The workers employed by the contractors should be suitably skilled for the respective job requirement otherwise head of the concerned Operation and Maintenance department shall have the right to disallow the unsuitable workers. The contractor shall engage suitable no. of supervisors to ensure safety at all places during execution of work.
- 7. In case of Injury, the contractor will send the injured person to Hospital/Dispensary/First Aid center with verbal intimation to the O& M department under whom he works as well as to safety department.
- 8. The contractor shall report about serious injury/fatality of his workers to local police station, D.M., Safety Department and O&M Department within two hours but written report shall have to be submitted in prescribed form to safety department and O&M department positively within 4 (four) hours.
- 9. In case of failure to fulfill safety requirements, WBPDCL /plant authority shall have the fight to claim 1% of contract value of Rs. 1000/- per day till he fulfills the safety requirement subject to maximum of 5% of total work contract. Safety requirement