



The West Bengal Power Development Corporation Limited

(A Govt. of West Bengal Enterprise)

Bandel Thermal Power Station

P.O. Tribeni, Dist. Hooghly, Pin – 712 503

NIT No.: WBPDCCL/Tend-Adv/Corp.(PR)/10-11/10/BTPS

Date : 19-04-2010

REF. NO. BTPS/P-32/B&A/2010-11/26

DATE: 12-04-2010

Cost of Tender Document (non-refundable) : Rs. 2,000/- (to be deposited in cash)
(Rupees two thousand only)
Last Date/Time for Sale of Tender : 26.04.2010 upto 2.00 P.M.
Date & Time for Pre-Bidd discussion : 03.05.2010
Last Date/Time for Submission of Tenders : 07.05.2010 upto 1.30 P.M.
Due date/Time for opening of : (a)EMD & Technical Part - 11.05.2010 at
2.00 PM
(b) Price part of technically acceptable bidder to
be informed later on.

in presence of participants, if any.

To
M/s.

Dear Sirs,

Sealed Tenders, in duplicate, duly typed and with firm's own seal, superscribing on the envelope the Tender Notice No.& Date, Due Date/Time of submission and opening of the Tenders are invited from the experienced and resourceful Contractors, for "Execution of Overhauling job of No. 2 Boiler and its related Pressure Parts" at Bandel Thermal Power Station, The West Bengal Power Development Corporation Limited on the "Scope of Work" and terms & conditions mentioned hereunder :

SCOPE OF WORK :

Sl. No.	Area/Zone of Boiler & related pressure parts where repair to be carried out	Tentative No. of joints
I. 1.	<u>Secondary Super-heater</u> Material : Alloy Steel. Size : 63.5 mm. OD x 5.16 mm. to 8.84 mm. thick.	20
2.	<u>Primary Super-heater</u> Material : Alloy Steel. Size : 69.9 mm. OD x 6.10 mm. thick & 63.5 mm. OD x 4.57 mm. thick.	320
3.	<u>Saturated Super-heater</u> Material : Alloy Steel. Size : 63.5 mm. OD x 5.16 mm. thick.	190
4.	<u>Reheat Super-heater</u> Material : Alloy Steel. Size : 50.8 mm. OD x 3.40 mm. thick & 57.2 mm. OD x 6.10 mm. thick.	15
5.	<u>Furnace Water Wall</u> Material : Carbon Steel. Size : 63.5 mm. OD x 4.57 mm. to 5.16 mm. thick & 75.4 mm. OD x 5.16 mm. to 7.62 mm. thick.	180
6.	<u>Economiser</u> Material : Carbon Steel. Size : 51.0 mm. OD x 4.88 mm. thick.	2200

The bidders will have to furnish the rates for the above items per joint basis.

Cont'd.../2

N.B. :

- a. All welding joints should be done as per IBR approved method i.e. root run by TIG followed by conventional electric arc welding with low hydrogen electrodes.
 - b. Membrane strips and fins in the furnace wall tubes and screen tubes are to be cut from M.S. Sheet and to be welded on the furnace wall, saturated screen and root tube and wherever necessary. No extra charge will be given for the above job. The length of each insert to be approx. 4 to 6 metres.
 - c. All IBR formalities to be taken care of by the successful bidder.
 - d. For placing inserts at some zones, insulation, tin-sheet cladding and skin plate may have to be removed. After giving inserts, those are to be redone. This removal & refitting to be done at free of cost.
- II. The party should also furnish the rates of the following items over and above the rates under Sl.No. 1 to 6.

1. A comprehensive record of thickness of tubes at different location to be prepared by measuring actual thickness of them with 'thickness gauge' of reputed make to be arranged by the successful bidder. No. of measurements which are to be taken at different locations are given below :-

<u>Location</u>	<u>Minm. No. of measurements</u>
Economiser	120
Saturated screen and sidewall tubes	40
Primary Superheater	40
Secondary Superheater	40
Reheater	40
Furnace	80

Rate to be quoted on lumpsum basis.

2. Manipulation of bends of any degree : Estimated quantum : 220 nos.
Bends are to be manipulated by the party from straight tubes, at site. One bend may contain more than one off- set. If bends are found defective, those are to be replaced by fresh ones at no extra cost.
3. Fabrication of tube guard/shield if required, shall have to be done from available steel sections. Estimated quantum – 520 nos.
4. Guard plates, shields and tube attachments are to be removed wherever required to facilitate inspection of the tube and refitted after completion of work. Rate for fitting new guard plates/shields and tube attachments should be quoted separately.
Estimated Quantum : a) Tube guard/shield fitting : 520 nos.
b) Tube attachment fitting : 650 nos.
5. Insulation of Sec. outlet heater, reheater header, primary outlet header, cross-over pipes, reheat in and outlet pipes, M.S. Pipe within pent house, down-comer ring header and supply tubes. Rate to be quoted per sq.ft. area insulated. Estimated work to be done 3000 Sq.ft.
6. Scaffolding to be erected to reach every nook and corner of the secondary superheater zone from floor to roof. The structure of the scaffolding to be erected with Steel pipe. Railing to be provided for safety. Platform and walkway in between the panels to be formed with wooden planks. Then all the secondary tubes are to be cleaned off deposited soot sinters by brushing and scrapping, manually. The same scaffolding would also be used for inspection and repairing of the tubes. After successful hydro- test of the boiler, the scaffolding is to be removed. However, this will be chargeable and bidders will have to quote their lump sum rate. All scaffolding materials to be supplied by the successful bidder at their own cost.

N.B. : Bidders should quote unit rates against item nos. I & II after taking into consideration all the expenses to be incurred by the bidder towards execution of the allied jobs mentioned or not mentioned in the Tender Notice but deemed essential for execution/completion of the contract, to be decided solely by the Controlling Officer.

- III. The additional jobs which are to be executed by the party at no extra cost are given hereunder :-
- a. 100% Radiography of the total welding joints at different zones are to be done by the party.
 - b. No gas cutting of boiler tubes will be allowed.
 - c. All defective joints are to be rectified.
 - d. The skirt plates at the bottom ash hopper are to be removed and refitted after proper cleaning. New skirt plates are to be fitted if existing ones are found broken. For the purpose scaffolding is to be erected at no extra cost.

Cont'd.../3

- e. Top bunches and bottom bunches, eighteen nos. of economiser coil are to be cutout from the header and to be lowered on the ground floor for inspection and repairing/replacement by new tubes after fabrication of the same. Thereafter the bunches are to be fitted and welded in position with the header. Jacket plates of headers and drain line are to be fabricated and refitted as per requirement. Casing removal and all insulation removal and subsequent refitting and all economizer tie bars are to be renewed by new. at no extra cost.
- f. To remove all debris and broken calcium silicate blocks from the Pent house completely.
- g. To facilitate inspection of the boiler tubes, insulation / masonry work is to be removed and finally re-done by the party. This work is over and above the insulation/masonry work required for repairing of Boiler tubes as given below :

Approx. surface area of insulation/masonry work which have to be done are as follows :

- i) Pent House floor adjacent to screen and primary tubes : 420 Sq.ft.
- ii) Screen tubes sealing top and bottom : 420 Sq.ft.

Weight of castable refractory would be around 10 MT.

N.B. : Concrete mixture machine to be used for preparation of mortar.

- h. Fresh boiler tubes, all spares and steel-selections are to be transported from the main store and damaged tubes of the boiler are to be transported to the scrap yard.
- i. Boiler galleries to be thoroughly cleaned.
- j. Scaffolding are to be erected in the saturated screen, primary zones from floor to roof to facilitate cleaning inspection and subsequent repair.
- k. Suspended scaffolding with winch, inside the furnace, to be erected for repair of furnace tube, burner quarrel, etc.
- l. To facilitate cleaning and inspection at other parts of the boiler, if necessary, scaffolding is to be erected and cleaning to be done at no extra cost.

After completion of the repairing work, but before putting the shields/guards, the hydrostatic test of the boiler is to be performed at 150 Kg./Sq.Cm. After successful hydrotest, the guard/shields are to be refitted and insulation work to be re-done. The work is said to be completed when the boiler will be ready for light up. After completion of the work, the Boiler galleries are to be cleaned and all scraps are to be transported to the scrap yard.

During hydrotest all associated jobs like safety valve gagging and subsequent checking of the Boiler to be done by the successful bidder at no extra cost.

NOTE : Any allied work not defined or stated above, but found necessary for execution of the contract, shall have to be done by the party at no extra cost.

The quantum of joints has been calculated tentatively on the basis of our previous experience in other boilers of this power station. The quantum of joints may vary. The actual number of joints can be ascertained after dry inspection of the boiler jointly by us, and the Boiler Directorate. As such order should be placed on itemwise unit rate and the party should quote on Unit rate basis. The job will be awarded to the overall lowest bidder.

Supply of Materials : Only steel materials including boiler tubes and insulation materials (e.g. mineral wool, G.I. Chicken wire net. Aluminium sheet/G.P. Sheet, Refractory Cement) will be supplied by BTPS, free of cost. Facility of mobile crane, service water, compressed air will be extended to the successful bidder, free of cost. All tools & tackles, welding machines, welding electrodes, filler rods, Industrial gases, scaffolding materials, G.I. wires and self-tapping screws for fixing G.P. sheet/Aluminium sheet are to be arranged by the party at their own cost. Electricity will be provided to the party free of cost as per existing norms. The successful bidder is advised to arrange illumination system of 24Volts within the Boiler and to keep sufficient number of electric grinding machines reserve for use in case of inadequate compressed air supply.

Completion Time : Entire work shall have to be completed within 25 (twenty five) days from the date of handing over the site to the contractor for work.

Fees for inspection of the Boiler and radiography interpretation by the Boiler Directorate are to be deposited by the party. However, the same shall be reimbursed by the WBPDCCL at actuals.

Dreem internals: Dismantling, cleaning, checking & refitting of Drum internals.

Cont'd.../4

SCOPE OF WORK:

- a) Opening of both side manholes.
- b) Covering the Down Comer Opening to avoid entry of foreign materials.
- c) All the internal parts except top scrubbers are to be dismantled and cleaned properly.
- d) Collection of accumulated metal dust for testing at chemical laboratory.
- e) Checking of Downcomers from any blockage by pouring water.
- f) Fitting of any missing hard wares.
- g) Cleaning of matrixes / strainers.
- h) Checking the seating surfaces of drum manholes if there is any cutting face, that is to be rectified properly & matching the faces.
- i) Drum manholes are to be closed by providing proper manhole gaskets.
Drum manhole gaskets will be supplied by BTPS.

MUST CONDITIONS FOR TENDER PAPER ISSUANCE

1. The firm must have at least 5(five) years experience in overhauling of P.F. fired boilers with steaming capacity not less than 6,50,000 lbs./hr.at the Power Station of NTPC/SEBs/Govt./Govt. undertakings & WBPDCCL.
2. The firm must be enlisted with the Central/State Boiler Directorate. They must have permission for I.B.R. as per Regulation No. 392 for execution of similar type of job and its completion certificate. Moreover, they must be directly involved with the Boiler Directorate for at least (3)three years.
3. The firm must furnish documents in support of their capability to execute similar jobs at Power Stations of NTPC/SEBs /Govt./Govt. undertakings with copies of work orders worth Rs.20 lakh each for last 3(three) consecutive years along with completion certificate issued in their favour by the Central/State Boiler Directorate.
4. The firm must have valid E.S.I. & P.F. Code and possess valid Trade Licence, Sales Tax and Income Tax clearance certificate.
5. The firm must have their office in Kolkata and must have to mobilize their resources for repair within 24(twenty four) hours after getting information of failure arising out of their bad workmanship.

TERMS AND CONDITIONS :

01. **Earnest Money** : The tender must be accompanied by Earnest Money of Rs.50,000.00 (fifty thousand only) payable by A/c. payee Demand Draft (on any Bank approved by the RBI) and drawn in favour of “The West Bengal Power Development Corporation Limited, BTPS” on State Bank of India, Tribeni Branch (0225). The Earnest Money must be sent along with the tender in a separate cover.
Earnest money will be refunded to the unsuccessful Tenderers after finalisation of the tender. Tender submitted without Earnest Money, shall be deemed to be incomplete and will be cancelled and no exemption in payment of Earnest Money will be allowed.
The Earnest Money of the successful Tenderer/Tenderers may be released on submission of performance Bank Guarantee Bond.
The Earnest money is liable to be forfeited, if the Supplier/Successful Tenderer fails to execute the order within the prescribed period, to be indicated therein.
02. **Security** : 10% of the order will be deducted from each running bill of the successful bidder as Security Money which will be refunded after guarantee period is over. Earnest Money will be deposited by the successful bidder along with the offer against our Enquiry will be refunded against satisfactory completion of the job duly certified by the Controlling Officer.
03. **Payment** : (a) The successful bidder may submit bills for 50% of the total cost of each joint as soon as the tubes are cut out and joints fitted in tack-welded position.
(b) Further 25% may be charged as soon as welding, Radiography and stress relieving are completed.
(c) Further 15% will be paid after completion of hydraulic test.
(d) Balance 10% will be paid after guarantee period on submission of Bank Guarantee for an equivalent amount to remain valid through the guarantee period.
04. **Accommodation** : One Store-cum-Office room may be provided by the WBPDCCL, BTPS free of charges. One room at BTPS Guest House may be provided to the supervising staff of the successful bidder on rental basis as per the WBPDCCL’s rule, if available.

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05. First Aid Facility : First Aid facilities may be provided to the working personnel of the successful bidder.
06. Mobilisation : Mobilisation time will be 3(three) days from the date of receiving of our intimation to start the work, in addition to the completion time.
07. Inspection : The successful bidder shall have to maintain liaison with the Boiler Inspector and Boiler Directorate and will arrange for to and fro transport for the same. Also he will bear the fare relating to the charge for simulation test of welders, charge for check shot or the joints as advised by the Boiler Directorate.
Boiler Inspector's accommodation will be arranged by the WBPDCCL in our Guest House.
08. Termination of Contract : The WBPDCCL, reserves the right to terminate the contract due to negligence or failure to execute the work after giving 7(seven) days notice in writing. The successful bidder shall have to vacate the work site if he fails to execute the work, after receipt of notice. The WBPDCCL will not be held responsible for his personnel or materials and may take over the work without any further reference to him.
09. Test Report : Over and above, the successful bidder shall have to maintain liaison with the Boiler Directorate, arrange simulation test of his welders to be engaged for the work, obtain necessary permission from the Boiler Inspector in context to his visit to site, if necessary, and for which no extra charges shall be paid to him by the WBPDCCL. However, all fees in context to inspection of the Boiler Directorate, may have to be deposited by the successful bidder on behalf of BTPS and the same in those cases will be re-imbursed from BTPS at actuals so as to avoid delay.
10. Controlling Officer : The Senior Manager (M/M) B&A, BTPS or his authorized representative.
11. Paying Officer : The Senior Manager (F&A), BTPS.
12. Guarantee : The Boiler must be guaranteed for satisfactory performance for a period of 6(six) months from the date of commissioning. In case of any defects noticed during the guarantee period, the same need be rectified at the earliest attributing top most priority free of cost.
13. Liquidated Damage : If the jobs are not completed within the date as specified by the Controlling Officer or if the successful bidder fails to effect execution of the ordered jobs, as the time is the essence of the Contract, in that case the WBPDCCL has every right without any prejudice to any other clauses to terminate the contract forthwith and to take possession of the balanced materials and have the same allotted to any other Agency and the Contractor shall be fully liable to compensate the loss that may occur to the WBPDCCL on that account.
If the job is not completed within the date as specified in the order, a Penalty @ 0.5% of the order value of un-executed portion of the order will be deducted from your bill for each and every week of delay or part thereof, limited to an amount equal to 2.5% of the value of the order.
14. Validity : Tenders should remain valid for 120 days from the date opening. The above conditions may, however, be negotiated depending upon the merit of the offer.
15. Tenders shall have to be submitted and will be opened strictly as per the following procedure :
 - (i) Earnest Money will be submitted in a separate sealed cover superscribing "Earnest Money", which will be opened first.
 - (ii) Technical Bid will be submitted in a separate sealed cover superscribing, "Technical Bid" which will be opened after taking action against (i) above.
 - (iii) Price Bid will be submitted in a separate sealed cover superscribing, "Price Bid" which will be opened when (i) & (ii) above will be found in order for fulfilling the conditions.

In each case the Tender Notice No. & Date, due Date of opening & description of work should be superscribed on the envelopes.

The WBPDCCL does not bind itself to accept the lowest tender and also reserves the right to reject/cancel any or all tenders for the reason whatsoever.

Yours faithfully,

Sd/-

(*Dipankar Roy*)

SENIOR MANAGER (S & P) : B.T.P.S.