

BHARAT HEAVY ELECTRICLES LIMITED
(A government of India undertaking)
Unit: High-Pressure Boiler Plant, boiler project P.O
TRICHIRAPALLI-14
COMBINED CYCLE DEMONSTRATION PLANT

NOTICE INVITING TENDER

01. Name of work : Power House, Electrical, Instrumentation O&M work :
2011-12
02. Estimate contract value : Rs. 45.20 lakh (approx)
03. Earnest money Deposit : Rs 1,00,000/-
04. Security Deposit : As per Works Policy
05. Operations & Maintenance period: One year
06. Cost of tender document : NIL
07. Last date for receipt of tenders : On or before : 02.11.2011 14.00 hrs
08. Date of tender opening : On : 02.11.2011 14.30 Hrs

This document contains Covering letter, Spec. and General conditions, Security Deposit details, Part-I (Qualification bid) and Part-II (Price bid).

For qualifying criteria refer General conditions under head General requirements point no. 9

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**BHARAT HEAVY ELECTRICLES LIMITED
TRICHIRAPALLI-14**

COMBINED CYCLE DEMONSTRATION PLANT

CONT: PH: 2011-12

Date: 04.08.10

Sir,

Sub: Power house, Electrical, Instrumentation O&M Contract: 2011-12.

We are forwarding herewith one set of tender documents pertaining to the above work. You are requested to go through the Work Specification, General conditions and then reply your competitiveness in two parts in a sealed cover. The first part is technical bid and second part is a price bid. The contractor should visit the work spot at CCDP to assess the nature and quantum of work and study the specification/General conditions before quoting. The contractor must reply the technical competitiveness in Part-I and price bid in part-II in separate sealed covers. Both covers are to be put in a single sealed cover and submitted to BHEL within the specified time.

The Earnest Money Deposit amount of Rs 1,00,000/- (One Lakh fifty thousand only) prescribed for the work shall be furnished in the form of Demand Draft from Nationalized / Schedule bank payable at Trichy, drawn in favour of BHEL /Trichy. The details of EMD kept inside shall be mentioned on the sealed cover. No interest shall be allowed on EMD

The due date and time for submission of your offer is at 14:00 hrs on 02.11.2011. When the tenders received, technical bid (part-I) will be opened at 14:30 hrs. The price bid (part-II) will be opened at a later date which will be suitably informed. BHEL/CCDP reserves the right to reject any or all the tenders received without assigning any reason therefore. The scheduled period of work is 12 months (One year period) from the date of award of work.

If you are in need of any further clarifications, please contact the undersigned on any working days between 09.00 am and 04.00 pm. In case you are not in a position to quote, please intimate the fact by return post duly returning the blank tender documents with your reply.

Thanking you,

Manager / CCDP

CC : SDGM / Finance

WORK SPECIFICATION

(Power House, Boiler, DM Plant, Lab, Electrical/Instrumentation O & M contract)

Work details

The one year contract is planned as follows:

1. Total 90 days of CCDP - Power House, Boiler, Electrical/instrumentation, DM Plant, Lab Operation (three shifts)
2. Total 210 days of CCDP - Power House, Boiler, Electrical/instrumentation, DM Plant, Lab Maintenance work (two shifts)

As and when the plant is ready for trial run after modifications, plant will be operated in three shifts (24hrs). After trial runs for data collection, suitable plant modifications/maintenance will be taken up in two shifts for making the plant ready for next trial operation.

List of activities during plant operation

As per the instructions from Engineers & supervisors the following activities are to be carried out by the contract employees along with BHEL staff, during plant operation in three shifts

1. Gas Turbine and Steam Turbine operation
2. Compressors : Process air compressors, service air compressors, Instrument air compressor, Drier operation
3. Cooling tower operation and level maintenance.
4. Pumps operation : operation of cooling water pumps for cooling circuits to compressors, coolers, gasifier y-piece
5. Boiler operation: Auxiliary boiler starting, line up for use in gasifier/starting. HRB boiler operation: Drum level control, maintaining steam pressure and use in gasifier or ST use. Feed pump operation and maintaining de aerator level.
6. DM Plant : DM water generation, stocking, supply to boiler
7. Lab: Analysis of samples coal, ash, water, steam, gas samples and analyzing the samples for data collection and report preparation
8. Sampling : collection of samples for coal, bottom ash, fly ash, ash slurry, steam/DM water at specified intervals and assistance during analysis
9. Data recording of running plant
10. PA system monitoring/fault attending
11. Battery backup system monitoring
12. Sub station monitoring
13. Lighting checking and attending the faults

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14. Electrical motors, equipments starting /stopping and other electrical related work
15. Operation related Instrumentation work in all areas viz Gasifier, Gas cleaning, control room, power house, Lab, DM plant, Boilers
16. Any on line maintenance work required during plant run

Repair and maintenance work

As per the instructions from BHEL Engineers & supervisors, the contract employees (Skilled and unskilled) in two shifts excluding Sundays and holidays will carry out the following repair and maintenance / modifications work during system shut down period. Our employees and supervisor will coordinate with the contract employees for early completion and restarting the plant.

1. Welding work required for any air/water /steam/coolant any other leak in pipe line, flange joints in LPC/HPC area, service compressor area, boiler area, DM plant area and pump house area.
2. Servicing /cleaning/maintenance of compressors/pumps/drier/gas turbine / steam turbine/AC plant components.
3. Servicing/cleaning/maintenance of Boilers & DM plant equipments.
4. Servicing/cleaning/maintenance of Lab Instruments.
5. Preparation for repair work: arrangement for approaching failure spots, scaffoldings, ladders, supports, Cleaning the lines, vessels, equipments, preparing of plates, pipes, gaskets, bolts and nuts. Preparation of surfaces for repair work, by cutting grinding, edge preparing. Arranging welding set, cutting set, electrodes gas cylinders etc.
6. Repair work: cutting, welding, grinding other repair work like bending, gland packing, replacing damaged portion with new pipes, tubes, plates etc. Dye penetration tests for welding repair and other quality control tests etc.
7. Assembly of system after repair work: assembly of vessels, flanges, pipe lines, equipments, dummies and tightening the manholes, flanges, equipments.
8. Checking the failure: After repair, the repaired area strength to be tested with leak check, hydraulic check or any other applicable test.
9. Putting back to service: After clearing the repair work, the system to be put back to service. Ensure water supply by starting cooling water pumps.
10. For system improvements: Addition of air lines, water lines, steam lines, valves, equipments, fabrication of burners, vessels or any other additions required to be added on need basis.
11. All modifications/improvement works shall be completed before starting next trial run.
12. All electrical related repair/maintenance work of total CCDP plant.
13. All Instrumentation related repair/maintenance work total CCDP plant.

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GENERAL CONDITIONS

(Power house / Boiler/DM Plant/Instrumentation/electrical/Lab Operation / Maintenance work)

STATUTORY REQUIREMENTS

1. The contractor shall pay minimum wages to his labourers as per Tamil Nadu govt. latest circular.
2. The contractor shall pay additional wages also as per Corporate guidelines along with TN Govt. wages.
3. Contractor shall maintain attendance and acquaintance Registers and submit copies every month for both TN Govt. wages and additional wages
4. The contractor shall pay Bonus to their employees as per minimum bonus act, for both TN Govt. wages and additional wages
5. The contractor shall remit PF and ESI (for both TN Govt. wages and additional wages) for the actual labourers engaged and produce the original challan every month along with bill for our verification and record.
6. The contractor shall not employ anyone who has not completed 18 years of age.
7. The contractor shall comply with all state and central laws, statutory rules, and regulations, inclusive of labour and industrial laws, which are applicable from time to time.
8. Any increase in minimum wage by Tamil Nadu Government, shall be implemented by the contractor (including PF & ESI). For any reason, no increase in contract value shall be agreed by BHEL.
9. Necessary gate entry, pass arrangement for labours shall be arranged by the contractor before commencement of the work. The authorized person / supervisor of the contractor are responsible for making the pass arrangement.
10. The contractor shall produce certificates for skilled workers engaged.
11. It is the sole responsibility of the contractor to ensure his workman against accident and injury while at work. They have to follow relevant pay compensation rules in case of accident/injury.

SAFETY

1. The contract employees shall follow safe working procedures by using appropriate safety equipments like safety shoes, safety helmets, safety belts, earplugs, nose filter cloth etc. All safety protective equipments mentioned above shall be supplied by the contractor.
2. All workers should compulsorily wear safety shoes and helmets at work site.

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3. The contractor shall ensure that no damage is caused to any equipment at the site. If any such damage is caused, it is the responsibility of the contractor to make good the losses or compensate for the same.
4. Scaffolding if required should be done by the contractor. Pipe, wooden planks & ropes will be provided by BHEL at free of cost.
5. The contractor shall strictly follow BHEL Engineers safety instructions whenever pointed out in addition to regular safety instructions.

WORKS

1. The contractor shall engage sufficient skilled workers (Daily three shifts for Plant Operation 90days and two shifts maintenance work for 210days, **each shift minimum Fitter 1, Instrument mechanic 1, Electrician 1, Lab assistant 1, unskilled workers 10 and supervisor 1**) to meet the work listed in specification
2. Pipe welding shall be done only after the edge preparation as per standard.
3. Proper electrode shall be used for welding joints based on grade/ type of material.
4. Preheating of electrode as recommended by the electrode manufacturer shall be carried out prior to welding.
5. Pipes, pipe fittings, bends, flanges, valves, gaskets, gland ropes, fasteners and spares etc. Consumables like welding electrodes, oxygen / acetylene cylinders, kerosene, paints, rustolene and other consumables like electric power supply shall be provided by BHEL at free of cost.
6. Welding machine, cutting set, drilling machine & accessories and special tools/sets shall also be provided by BHEL at free of cost.
7. All scrap materials shall be transferred to CCDP stores after inspection by the site in charge.
8. The contractor shall bring welding shield and arc welding holder for welding works.
9. The contractor shall to bring two sets of tool boxes with spanners, hammers, chisels, cutters, wire brushes, steel tapes, bonds, shovels etc.,
10. The contractor shall supply to all their employees sufficient safety equipments like safety shoes, safety helmets, safety belts, earplugs, nose filter etc.
11. Since the contract employees are working in a coal/ash dusty atmosphere, the contractor shall compulsorily provide them with nose mask, long towel, soap, 100ml coconut oil, once in a week The contractor shall engage sufficient skilled workers wherever necessary for, fitting, alignment, servicing, repair work of rotating parts, servicing of different types of valves and all other maintenance activities. The contract supervisor shall take care of this responsibility.

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12. Timely completion of work is very important. Hence the contractor shall engage sufficient no. of workers. If sufficient workers are not brought to the work spot, penalty will be imposed for the delay caused at 10% of value of such work and it may even be extended up to termination of contract.
13. During plant operation, every location has to be manned with sufficient man power, to the satisfaction of site engineer.
14. Any deficiency in the supply of required man power for operational needs will be met by Department from other agencies at your risk & cost.
15. The contractor's supervisor will control the man power and he is responsible for maintaining quality, speedy and smooth overall work completion.

GENERAL

1. The contractor shall be responsible for the proper behavior and observing all rules and regulations by the labour employed by them.
2. BHEL rules will be applicable towards issue of refreshments /food which will be adhered by the contractor. As per existing procedure for Canteen facilities, the lunch coupon shall be issued @ Rs.5 (Rs. Five) per person. Sufficient and valid coupons are to be tendered for Tiffin, Tea, Coffee, Milk, etc. to the canteen staff.
3. No advance payment will be arranged for the contract
4. Monthly bill shall be raised as per the measurement of actual work completed on pro-rata basis.
5. The contractor is directly responsible for the payment of wages to his workmen.
6. The plant operation will be carried out in three shifts per day. Maintenance and repair work will have to be carried in two shifts per day as per BHEL engineer's instructions.
7. In case of any urgent requirement, contractor may have to work on Sunday and holiday.
8. The contractor shall submit an acceptance letter for the above terms and conditions.
9. Qualification criteria : The tenderer should have executed a similar single contract of value not less than Rs15 lakh per year. Technical/Qualification competitiveness will be evaluated by technical committee and based on their recommendations only price bid will be opened. If the tenderer fails to satisfy qualifying criteria (both explicitly and implicitly stated) their offer will be rejected.
10. The contractor shall quote their offer on
 - a) Per day rate basis (three shift/day) for plant operation
 - b) Per day rate basis (two shift/day) for maintenance work

NOTE: The contractor may contact BHEL welfare section for details regarding additional wages as per corporate guidelines, in addition to the Tamil Nadu Govt. minimum wages along with necessary additional PF & ESI

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WORKS POLICY

8.2 Security Deposit:

8.2.1 Security deposit should be collected from the successful tenderer. The rate of security deposit will be as given below:

- Upto Rs. 10 lakhs - 10% of work order value.
- Above Rs. 10 lakhs upto Rs.50 lakhs - 1 lakh +7.5% of the amount exceeding Rs. 10lakhs.
- Above Rs. 50 lakhs : Rs 4 lakhs + 5% of the amount exceeding Rs. 50 lakhs

The security Deposit should be collected before start of the work from the contractor.

8.2.2 Security Deposit may be furnished in any one of the following forms:

- I. Cash (as permissible under the Income Tax Act)
- II. Pay Order, Demand Draft in favour of BHEL.
- III. Local cheques of Scheduled Banks, subject to realization.
- IV. Securities available from Post Offices such as National Savings Certificates, Kisan Vikas Patras etc.(Certificates should be held in the name of contractor furnishing the security and duly pledged in favour of BHEL and discharge on the back.)
- V. Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the companies act subject to a maximum of 50% of the total Security Deposit value. The balance 50% has to be remitted either by cash or in the form of security. The Bank Guarantee format should have the approval of BHEL.
- VI. Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in Companies Act. The FDR should be in the name of the Contractor, A/c BHEL, duly discharged on the back.
- VII. Security Deposit can also be recovered at the rate of 10% from the running bills. However in such cases at least 50% of the Security Deposit should be collected before start of the work and the balance 50% may be recovered from the running bills.
- VIII. EMD of the successful tenderer shall be converted and adjusted against the Security Deposit.
- IX. The Security Deposit Shall not carry any interest.

NOTE:

Acceptance of Security Deposit against Sl. No. (iv) and (vi) above will be subject to hypothecation or endorsement on the documents in favour of BHEL. However, BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith.

Security Deposit shall not be refunded to the contractor except in accordance with the terms of the contract.

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PART-I
(TECHNICAL BID)

1. Years of experience in the similar function :
2. Similar functions executed earlier. If so, cite examples :
(Use separate sheet if required including feedback letters from Customers)
3. Possess adequate manpower for deployment with required qualification/experience (Furnish details) :
4. Approximate quantum of business per annum :
(For the past three years)
5. Number of contracts under execution at present :
6. Any instance of termination of contract in the middle :
7. Whether additional wages (as per corporate guidelines) also considered including PF,ESI, Bonus etc :
8. Whether service tax 10.30% is also added while quoting price offer :
9. PAN card No.:
10. ESI No.:
11. PF. Account No.:
12. Whether visited the plant for assessing the work content for price offer :
13. Estimated man days category wise required for completing the Scope of work :
14. Permanent address of the Firm as well as the Contact details of Chief personnel :

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PART - II
(Price Bid)

Name & Address of the Contractor :

Sl.No	Contract details	Rate to be filled by the contractor
01	Power House, Electrical/instrumentation Operation work as per specification and conditions. Rate per day for three shifts (24 hrs) work, including service tax 10.30%	Rs. (Rupees)
02	Power House, Electrical/instrumentation Maintenance work as per specification and conditions. Rate per day for two shifts (8.00 to 16.30 and 16.30 to 01.00) work, including service tax 10.30%	Rs. (Rupees)

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CHECK LIST

Documents to be included in **Part I qualification bid (sealed cover)**

1. Documentary evidence as per qualification Criteria (Order copy, Bill copy, payment voucher, site visit certificate, bank solvency certificate etc)
2. EMD as per Tender
3. Tender documents signed in all pages
4. Part-I Technical/Qualification bid
5. Income tax PAN copy and latest IT return copy
6. Latest solvency certificate

Documents to be included in **Part II Price bid (sealed cover)**

1. Part-II Price bid duly filled in with Address and Signature

PLANT VISIT CERTIFICATE

This is to inform you that I have visited the site on and fully understood the work nature, the rates are quoted based on this and I will not ask for any revision of rates / contract value during the tenure of the contract.

Authorized person with seal

BHEL Engineer's signature