## **BOKARO POWER SUPPLY CO. (P) LTD.**

# HALL NO:- M-01, OLD ADMINISTRATIVE BUILDING, ISPAT BHAVAN, BOKARO STEEL CITY – 827001

Reg. Office: Ispat Bhawan, Lodhi Road, New Delhi – 110 003 CIN:U40300DL2001PTC112074

TENDER NOTICE NO.: BPSCL/MM/20-21/C-193/NIT-981/948 Dated 27/03/2021



## TENDER DOCUMENT

NAME OF WORK: Annual Maintenance Contract of Boiler with its Auxiliaries and Turbine Auxiliaries of unit 6 to 9.

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## **Bokaro Power Supply Co. (P) Ltd.**

(A Joint Venture of SAIL & DVC)
Hall No: - M-01, Old Administrative Building,
Ispat Bhavan, Bokaro Steel City – 827001
Reg. Office: Ispat Bhawan, Lodhi Road, New Delhi – 110 003
CIN:U40300DL2001PTC112074

#### **NOTICE INVITING TENDER**

#### NIT No.: BPSCL/MM/20-21/C-193/NIT-981/948

For and on behalf of BOKARO POWER SUPPLY COMPANY (P) LTD, sealed tenders in two parts, **Part - A:** Earnest Money Deposit and **Part- B:** Technical & Commercial Offer with copy of system generated acknowledgement-slip for online submission of sealed price are invited from the bidders meeting the eligibility and qualifying criteria stipulated in the bidding documents for the following work at our Power Plant.

Description of Work	Annual Maintenance Contract of Boiler with its Auxiliaries and Turbine Auxiliaries of unit 6 to 9.	
Estimated Cost (in Indian Rs.)	Rs. 2,85,67,149.00 (Rupees Two Crore Eighty Five Lakh Sixty Seven Thousand One Hundred Forty Nine Only) Excluding GST.	
Earnest Money (in Indian Rs.)	Rs. 5,00,000.00 (Rupees Five Lakh) only	
Period of Contract	One (01) Year from the date of commencement of work.	
Last Date & Time of submission of Tender	27/04/2021 at 12:00 Hrs. (IST)	
Bid opening Date & Time	27/04/2021 at 12:15 Hrs.	

#### **Qualifying Requirements / Eligibility Criteria:**

## **Financial Capability:**

- 1. Bidder should have Minimum average annual turnover (MAT) of **Rs. 85.70 Lakhs** in preceding three (03) Consecutive Financial years.
  - Average annual turnover shall be determined taking into consideration turnover of preceding three
    consecutive financial years. Other income shall not be considered for arriving at annual turnover.
  - Audited annual accounts along with auditor's report of the bidder should be furnished in support of the same. Where audited annual account is not mandatory as per the law, the bidder has to submit annual financial turnover during the consecutive last three (03) years, ending 31st March of the previous financial year duly certified by CA.

#### **Technical Capability:**

- 2. Bidder should have experience of having completed **similar work** in India in any Public Sector Undertaking / Government / Semi Government organization or joint venture thereof / Company registered under Companies Act during last 7 years ending last day of month previous to the one in which offers are invited. Value of such work order shall be either of the following:
  - a. Three similar completed works each costing not less than to Rs. 114.27 Lakhs

#### OR

b. Two similar completed works each costing not less than to **Rs. 142.84 Lakhs** 

#### OR

c. One similar completed work costing not less than to Rs. 228.54 Lakhs

Similar Work means: Work order / orders having AMC (Mechanical) of Pulverized coal fired Boiler of at least 220 TPH capacity and Steam Turbine of not less than 36 MW of single unit each capacity & their auxiliaries. The total value of the contract executed by the bidder for AMC (Mechanical) of Boiler & Turbine ,even in separate work orders in last Seven (07) years will be combined together and one work order each for Boiler & Turbine will be considered as one set.

- Completed Work means the executed/completed portion of 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) along with successful work execution certificate (by the concerned authority)
- 3. The bidder must submit Satisfactory Work Execution / Completion Certificate(s) for the work (s) for which copy (copies) of work order (s) is (are) being submitted as given above issued by the competent authority.

Date: 27/03/2021

- 4. In support of their eligibility and experience, the bidder is required to submit self attested photo copies of work orders & completion certificates (by the concerned competent authority) along with the techno-commercial bid. In addition, bidder shall submit a self declaration as per format at **Annexure-VI**.
- 5. Credential of having experience as subcontractor will not be considered.
- 6. Bidding through a consortium is not allowed.
- 7. The bidder shall submit self certified copies of the following:IT Return (*Latest*), Copy of EPF, ESI Certificate, Partnership Deed / Affidavit for Proprietorship /
  Memorandum & Articles of Association, including changes in the Constitution of the Firm, (if any) and Copy of GST registration certificate).
- 8. The bidder shall submit acceptance for finalization of rates through Reverse Auction as per Annexure.

#### **General Terms & Conditions:**

1. Offer shall be accompanied with Earnest Money Deposit (EMD) in the form of Demand Draft / Pay Orders / Bankers Cheque Payable at Bokaro Steel City or Bank Guarantee having validity for one (01) year, from any Nationalized Bank / Scheduled Bank except Co-operative Bank drawn in favour of Bokaro Power Supply Company (P) Ltd. as per format available at our website: <a href="www.bpscl.com">www.bpscl.com</a>. Earnest Money can also be deposited online in our account through NEFT/RTGS/SWIFT/TT Remittance, details of which are given below. The proof of such transfer shall be submitted with the offer in the envelope titled "Earnest Money Deposit".

#### Banker Details as under:

Name of Bank : STATE BANK OF INDIA

Branch Name : SME BRANCH, Sector 4, Bokaro Steel City

Bank Account No. : 35665021458 IFSC Code : SBIN0004231 Bank A/c Type : Current Account

In case of forfeiture of EMD by BPSCL, you will be required to reimburse the applicable GST to BPSCL.

- 2. However, Micro & Small Enterprises (MSEs) / PSU /Govt. Undertakings and Co-operative societies will be exempted from submission of Earnest Money as per government policy. For MSEs, the exemption from submitting Earnest Money will be granted only on submission of valid copy of certificate having a valid Entrepreneurs Memorandum (EM) number / Udyog Adhaar Memorandum / Udyam Registration Certificate (whichever applicable). SSI/NSIC certificate holders should also submit Entrepreneurs Memorandum / Udyog Adhaar Memorandum / Udyam Registration Certificate (whichever applicable). However, unit claiming exemption is required to submit copy of registration certificate indicating clearly the item category for which they are registered.
- 3. Offers not accompanied with Earnest Money Deposit (EMD) (as per clause i) or documents for exemption (as per clause ii) will be treated as INVALID.
- 4. Consortium bids will not be considered unless the provision for consortium is specifically mentioned in Tender Document.
- 5. If you withdraw your bid after opening of bids without giving any satisfactory and acceptable explanation thereof, you shall be debarred from participating in any tender of BPSCL for a minimum period of 01 (one) year and your Earnest Money will be forfeited.
- 6. SUBMISSION OF PERFORMANCE GUARANTEE BOND FOR QUOTING UNWORKABLE RATE:

If you quote unworkable rates, i.e. if the quoted price is less than 90% of the estimated price and is considered for placement of order, you will be asked to justify the rate quoted. On non acceptance of justification / refusal of the same, you will be asked to furnish Performance Guarantee Bond in the form of Bank Draft/Bank Guarantee. The amount of Performance Guarantee Bond will be equal to the difference between 90% of estimated price and your quoted price. In case you refuse to give Performance Guarantee Bond, your Earnest Money will be forfeited and you will not be considered for participating in any kind of Tender for next 01 (one) year from the date of issue of letter to you, if order / contract is not finalised from the present tender.

In case of forfeiture of Performance Guarantee Bond, you shall be required to reimburse the applicable GST to BPSCL.

#### 7. Handling of Earnest Money:

• Earnest Money will be refunded to the un-successful bidder after determination of L1 Bidder and no interest will be paid upon the same. You are requested to provide Bank Details for refund of EMD.

- 8. **RATE FINALIZATION**: BPSCL reserves the right to finalize the rate through either of the following modes:
  - a. Opening of Online Price (*submitted on <u>www.buyjuntion.in</u>*) submitted at the time of techno-commercial bid.
  - b. Through Reverse Auction to be conducted by our service provider M/s. mjunction.

<u>Note:</u> BPSCL may ask techno-commercially accepted bidders to submit decrement in percentage (%) on their online price submitted at the time of techno-commercial bid. On line price bid alongwith % decrement shall be considered together in case online price bid is opened.

## 9. **BPSCL** reserves the right to:

- a) Re-tender / extend the due date of submission of offer.
- b) Accept or reject any offer / all offers in full or part at any time at any stage without assigning any reasons and without any compensation thereof to the bidders.
- c) Modify the tender documents at any stage before the due date of tender.

#### Note:

- 1. Tender documents are to be downloaded from **Website: www.bpscl.com** only.
- 2. Bidders are requested to visit above website regularly for any addendum / corrigendum / extension till opening of the NIT. **Any such changes shall not be published through Press advt.**

For and on behalf of Bokaro Power Supply Company (P) Limited

(A.K. Das) GM I/c (MM) Tel: 8986874119

Email: purchase.bpscl@gmail.com

#### Conditions & Rules to be observed in submitting Tenders

#### 1.01 Manner of Submission of the Tender

The tender shall be divided into 02 parts as follows:-

- a) **Part A:** This part shall comprise of EMD / proof of online submission of EMD.
- b) **Part B:** This part shall comprise of Technical and Commercial details, consent on terms & conditions of NIT/ signed Tender Document along with copy of SYSTEM GENERATED **ACKNOWLEDGEMENT-SLIP FOR ONLINE SUBMISSION OF SEALED PRICE\*** bid etc.

Sealed Tender through Regd. Post/Speed Post/In-person/Courier Service only, in an envelope containing 02 (Two) separate sealed envelopes (as mentioned above) with NIT No. & date of opening along with Sender's Name & Address printed on it, is to be sent to the below mentioned address:

GM I/c (MM) Bokaro Power Supply Co. (P) Ltd. Hall No.M-01, Old ADM Building Ispat Bhawan, Bokaro Steel City – 827001 Ph: 06452 240380, Mob: 8986874119

#### \* PROCESS FOR ONLINE SUBMISSION OF SEALED PRICE:

1. Online sealed Price Bid (% above / % below) through URL: http://www.buyjunction.in

#### The process of submission of Online Price bid is as detailed hereunder-

- Step 1: Type <a href="http://www.buyjunction.in">http://www.buyjunction.in</a> in the internet explorer.
- Step 2: Click on Login (present on Top right side of the Page)
- Step 3: Click on View Live Auctions and Tenders.
- Step 4: In the right side open/global tenders link will be displayed.
- Step 5: Click on the link for the above mentioned tender link present under Open tenders
- Step 6: Click on new user if you are not registered in buyjunction earlier. Click on Existing user in-case you have already registered in buyjunction earlier. Existing users can login with their user id and password.

**Please note** foreign bidders are required to select their bidding currency from the drop down menu available before proceeding further (where ever applicable).

#### New Users:

Steps to get your User ID and Password

- 1. Click on the required tender link under "Open Tenders"
- 2. Choose your Auction currency in-case any option is coming to select currency. Click on "New User"
- 3. Fill up the "Registration Form" and click on "Submit". All fields marked with (\*) are mandatory fields.
- 4. On submitting the filled-up registration form, an auto generated email will be sent to the email address you have mentioned in the registration form containing your User ID and Password.
- 5. Changing of password on first login is compulsory.
- 6. On receipt of the User ID and Password you become an **Existing User.** Now follow the steps of existing user to login to the auction site.

## **Existing Users**

- 1. Click on the required tender link under "**Open Tender**"
- 2. Click on "Existing User".
- 3. Log in with your existing user id and password for placing your bid.
- 4. Read through the "Bidding Procedure" to proceed further for bidding.

#### **Bidding Procedure**

After logging in with your user id and password you have to accept the "Auction Terms".

Steps to accept the "Auction terms":

1. Click on "Auction Terms".

- 2. Then click on "View term without DSC"
- 3. Click on the relevant auction terms appearing under "**Term** "column.
- 4. Select the check box on the left-side of the relevant auction terms.
- 5. Click on the button besides "Accept".
- 6. Then click on "Submit".
- 7. A message will be displayed to you mentioning your acceptance to terms for auction.
- 8. It is mandatory to accept the terms of online bidding in order to proceed for submission of bid.

#### Steps to Submit Price Bid

- 1. Click on "Bids."
- 2. Then click on "Live Auction."
- 3. Put your login password as transaction password
- 4. Select the auction id and click on add to watch list.
- 5. Now the bidding screen is visible.

#### 6a. For Template Bidding

- 1. Click on **Icon "T"** on left column of bidding screen (Which will appear separately **for each lot**).
- 2. A template form will open where you need to fill up the price & click on evaluate at the bottom
- 3. If you want to quote the evaluated price then click on "confirm".
- 4. After clicking on the confirm button of the template window, your price will appear in the "New Bid" box.

#### 6b. For Non-Template Bidding

- 1. Fill your Price in the "New Bid Box" visible on the bidding screen.
- 2. Select the check box at the extreme left of the bidding screen
- 3. Click on "Submit" button placed at the bottom left of the screen.
- 4. Bid once placed will have to be honoured.
- 5. You will see "Bid Accepted" in the "Result" column. This indicates that your bid is accepted and registered in the system.

#### Steps to take a print-out of the receipt

- 1. Once you have placed your bid, to download Bid Receipt, kindly click on "Download".
- 2. Then click on "Bid Receipt for Open Tender".
- 3. Select the auction to generate receipt.
- 4. Take print out of the same market-wise (Term List)/ item-wise (Auction list).

**Note:** For any clarification on the bidding process please contact

Mr. Anjan Buda- 9163348263 - anjan.buda1@mjunction.in

Ms. Debalina Maity - 8336991451 - maity.debalina@mjunction.in

Ms Bingyasini Pradhan – 9163348173 – pradhan.bingyasini@mjunction.in

Ms. Priyanka Muzumdar – <u>mazumdar.priyanka@mjunction.in</u>

Mr. Mukesh Kumar Singh- 8873002741 - mukesh.singh@mjunction.in

A copy of System generated **acknowledgement-slip** for Online submission of sealed price bid is to be submitted along with Techno-commercial Bid.

## 1.02 Tender Validity Period

Validity of the offer shall be **Four (04) months** from the bid opening date. In case of extension of "Bid Submission Date", the validity will be counted from the extended bid opening date.

#### 1.03 General Instructions:

i) You shall have to quote price in any of the two options given below:

## Percentage ABOVE with respect to Total Estimated Cost excluding GST OR

#### Percentage BELOW with respect to Total Estimated Cost excluding GST

- a) If you do not quote price in terms of percentage or quote in more than one option, your offer will be rejected.
- b) In the tender schedule at the place where you have to quote PERCENTAGE, 'above' will mean mathematically positive and 'below' will mean negative.

- c) The Lowest-1 (L-1) Bidder will be the one whose PERCENTAGE is mathematically lowest and all other Bidders will be ranked/termed as Lowest-2 (L-2), Lowest-3 (L-3) and so on, in the increasing order of PERCENTAGE quoted by them.
- ii) You are requested to visit site for actual assessment of the job before submission of offer.
- iii) You shall clearly indicate that your quoted prices shall remain firm in all respects till execution of the work order.
- iv) Any conditional offer or offer having deviations is liable to be rejected.
- v) You have to submit Tender document bearing your signature and seal on all the pages along with Techno-Commercial Offer / consent on NIT's Terms & Condition. Otherwise, it will be presumed that you do not accept our terms and conditions and this may lead to rejection of your offer forfeiting your claims if any.
  - You are advised to mention page no. on each page of documents submitted by you. BPSCL shall not bear any responsibility in case of any loss of documents submitted by the bidder during tender opening or thereafter.
- vi) If you are a Firm or Company, then you 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.
- vii) Price or any indication of price shall **NOT** be mentioned in the Techno-Commercial Bid.
- viii) The sealed tenders received will be opened on scheduled opening date and time in the office of Material Management, in presence of such bidders who might choose to witness the same
- ix) 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.
- x) Communication regarding date of Opening of Price-Bid shall be displayed on the Notice board of Material Management Department and individual communication to the techno-commercially eligible bidders will be sent only to their e-mail address given in the tender documents.
- xi) Offers from two or more bidders shall summarily be rejected if they have any of the following parameters in common:
  - a) Same PAN
  - b) Same GST Number
  - c) Same Postal address
  - d) Same E-mail ID
  - e) Same Mobile number
  - f) Same person signing in more than one offer/representing more than one bidder.
- xii) BPSCL reserves the right either to reject any/all the tenders without assigning any reason thereof.

#### **GENERAL TERMS AND CONDITIONS**

- 1.01 You will have to follow and observe the safety & statutory requirements.
- 1.02 You will have to be fully responsible for any sort of unsafe activity of your workmen. All working personnel should have proper safety certificates issued by BPSCL before start of work.
- 1.03 You will have to produce medical fitness certificate for your workers. Height passes shall be obtained from Safety department, if required.
- 1.04 Supervision of the work shall be your responsibility.
- 1.05 In case any documents/information submitted by you is / are found to be false or containing any misrepresentation or having any fraudulent declaration in it, then, in such eventuality, EMD will be forfeited and legal action (including cancellation of contract, banning of business dealings, criminal proceedings, etc.), as deemed fit, may be initiated by BPSCL against you.

#### 1.06 **Payment Terms:**

97% of contract value will be paid on pro-rata basis duly certified by Engineer In-Charge and balance 03% will be retained as security deposit which will be released after completion of guarantee period on satisfactory execution of order.

The expression satisfactory execution of the order shall mean fulfillment of all obligations arising out of and in connection with the Contract. In case of default in satisfactory execution of the order, the security deposit shall be forfeited.

Amount of penalty and/or Liquidated Damages imposed (if any) will be recovered from Bill / Security Deposit. If the amount of Bill / Security Deposit is not sufficient, the bidder will be required to pay the balance amount to BPSCL. If you do not pay the balance amount, the same shall be deducted from any sum or sums which may be due or may become due to you from BPSCL on any account whatsoever.

1.07 You will have to strictly adhere to the provision of various labour laws including Payment of Bonus Act 1965.

#### 1.08 **Payment Default Clause:**

Contractor must ensure that payment is made to the workers as per provisions of payment of wages Act and CLC norms failing which BPSCL shall make payment to concerned workers directly. The amount so paid along with 15% of Administrative cum Service charge shall be deducted from any of the concerned contractor's bill. If the provision of payment of wages act is not adhered to second time, the Contractor shall be liable for banning of business dealing with BPSCL as per procedure in vogue. Such Contractor shall not be permitted to work in BPSCL through sub-contracting also for the banning period.

- 1.09 You will have to pay an additional amount of Rs.4/- per day to every worker engaged by you for the subject work over and above their daily minimum wages, as per BPSCL rules.
- 1.10 The manpower (labour and Supervisor) deployed for completion of the job and for compliance of work & safety of the workmen should be adequate. However, the compliance and completion of the job cannot be restricted to labour supply but on the actual execution of the job to be certified by the Engineer In charge.
- 1.11 Paying authority –In charge (F&A), BPSCL.
- 1.12 No idle charge or escalation charges will be considered during the contract period.
- 1.13 You will have to execute the work in compliance with the provisions of contract and contract Technical Specification and / or design drawings furnished by the Employer (BPSCL) in terms of the contract and as per codes and standards specified therein.

#### 1.14 **GST Related Clauses:**

- a. You shall have to quote GST as extra. If not mentioned, same will be taken as extra.
- b. You shall have to submit their GSTIN registration details to BPSCL along with supporting documents.

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1.	GSTIN	
2.	Service Accounting Code No.	
3.	Applicable GST Rate	
	CGST (in %)	
	SGST (in %)	
	IGST (in %)	

- a. You will have to pass on the tax benefit/savings, if any, on account of output taxes to BPSCL.
- b. You shall agree to do all things not limited to providing GST invoices or other documentation as per GST Law relating to the above Services, payment of taxes, timely filing of valid statutory returns for the tax period on the Goods and Service Tax Portal etc. that may be necessary to match the invoice on GSTN common portal and enable BPSCL to claim input tax credit in relation to any GST payable under this agreement or in respect of any part under this agreement.
- c. In case the Input Tax Credit of GST is denied or demand is recovered from BPSCL on account of any non-compliance by you, including non-payment of GST charged and recovered, you shall indemnify BPSCL in respect of all claims of tax, penalty and/or interest, loss, damage, costs, expenses and liability that may arise due to such non-compliance. Further, in case of any differential tax liability on account of any wrong classification/valuation etc. by you, BPSCL will not be liable to reimburse any part of such differential tax, interest, penalty etc. It will be your sole responsibility to discharge appropriate taxes, as applicable.
- d. You shall maintain high GST compliance rating track record at any given point of time.

#### 1.15 Work accident:

- a. You will be responsible for the safety of your workers employed for the work. In the event of any work-accident, major or minor, you or your representative must take care of the injured person immediately and provide him the required treatment as suggested by the doctor. If you or your representative is not available for arranging medical care, the injured worker will be treated in Bokaro General Hospital and the cost of treatment will be recovered from you.
- b. You shall be fully responsible for making payment of compensation to your workmen in respect of any accident or injury occurring to them. BPSCL will in no way be responsible for it and will remain indemnified against all such claims of compensation in such cases.
- 1.16 **AWA CLAUSE:** You shall have to pay an amount of Rs 96.15 per day on actual attendance per month (not exceeding Rs 2500/month) to the workers engaged by you in this job as Additional Welfare Amenity (AWA) as per relevant circular/notification of BPSCL.
- 1.17 **FORCE MAJEURE:** You shall not be considered in default if delay occurs due to reasons beyond your control such as acts of God, natural calamities, civil wars, fire, strike, frost, floods, riot and acts of unsurpassed power. Only those causes which have duration of more than seven days shall be considered in force majeure clause. In the event of delay due to such cause, the delivery / completion period will be extended for a length of time equal to the period of force majeure without imposition of Liquidated Damages at the option of BPSCL.
- 1.18 **Banning of Business Dealings:** On arising of any situation or occurrence of any event as mentioned in Clause 6 of the Guidelines on Banning of Business Dealings, you shall be liable for action under and in accordance with the aforementioned Guidelines. The "Guidelines on Banning of Business Dealings" shall form part of the Tender/Contract and can be viewed on our website <a href="www.bpscl.com">www.bpscl.com</a>
- 1.19 **RISK AND COST:** Failure on your part to start the work within reasonable time / poor progress of job / any breach of contract will entail termination of the Contract. In such an event, the job will be executed at your risk and cost by alternate arrangements.

#### 1.20 You shall maintain all records/register/return/cards such as:

- i) Register of workmen employed by contractor
- ii) Employment card
- iii) Muster Roll iv) Register of wages-cum-muster roll v. Submission of Return & Order book
- 1.21 **SAFETY CLAUSE:** You shall be liable for penalties mentioned below for non compliance of safety norms.
  - i. Upto Rs. 5000/-by Head of Safety Engg. Department /Head of the department where work is being done for 1<sup>st</sup> violation of safety norms, non use of PPEs(Personal Protective Equipment) like safety shoes, hand gloves, safety helmets, goggles etc as per work requirements by you or your workers. This condition is applicable in case of violations of Road Safety norms also.
  - ii. Fine upto Rs. 20,000/- on  $2^{nd}$  Violation as mentioned in clause (i) above.
  - iii. You shall be debarred / deregistered from taking up further contractual work in BPSCL for a period of one year from the date of issue of debarring / deregistering order on 3<sup>rd</sup> violation as mentioned in clause no (i) above.
  - iv. Fine upto Rs. 10,000/- for violation in use of Full Body Harness by you or your workers for working at height (above 1.8 meter from immediate floor).
  - v. Fine Rs. 25,000/- (minimum) to Rs. 50,000/- (Maximum) for serious injuries and disabilities caused by violations as mentioned in Clause No. (i) and (iv) above.
  - vi. Independent of the above, you shall be fined Rs. 1,00,000/- (Rupees One Lakh) or more and debarred / deregistered from taking up further contractual work in BPSCL from the date of issue of debarring / deregistering order in case any fatal accident occurs due to violations as mentioned in Clause (i) and (iv) above.

Note: In case penalty is imposed, you shall be required to reimburse the applicable GST to BPSCL

### **Scope of Work:**

# PART – A: Annual Maintenance Contract for Boilers along with their Auxiliaries and Turbine Auxiliaries of units 6, 7 & 8.

**Plant Details:** 3x60 MW condensing steam turbine and 3x260TPH, 100 ata 540°C, pulverized coal fired Boiler.

The scope of work involves Preventive and running / breakdown maintenance of Mechanical components, Control & Instrumentation as indicated and detailed in enclosed SOQ within the limit of TG Auxiliaries, Boiler and Boiler Auxiliaries, Valves and Pipes, removal / replacement of HT/LT Motors and disconnection and reconnection of termination in addition to SOQ you have also to execute the following job as per requirements.

- 1. Replacement of Gaskets / attending leakages through Boiler drum manhole (Welding of joints is excluded).
- 2. Help in Balancing of PA Fan impeller (Balancing facilities to be provided by BPSCL free of cost).
- 3. Vibration monitoring, Temperature measurement, De metering along with record keeping on daily basis and suggestion for improvement (Vibration monitoring equipment, De metering equipment and temperature measuring gun as required to be supplied by party).
- 4. Manpower assistance in normalization and isolation of equipment.
- 5. Cleaning of own generated debris after maintenance of any equipment on regular basis.
- 6. General Purpose welding electrode & industrial gases required for execution of the job under scope of work shall be arranged by party.
- 7. Manpower Assistance from your existing manpower to be deployed will be provided for maintenance of EOT Crane inside TG hall.
- 8. Patch welding to arrest dust leakages from coal pipelines, casing of different equipments etc.
- Alignment of HT & LT motors of rotary equipments & valves- during AMC/after Overhauling of equipments.

#### **DETAIL SCOPE OF WORK**

#### A. PREVENTIVE MAINTENANCE OF BOILERS AND AUXILIARIES

PM of raw coal feeders & hydraulic gates.

PM of raw coal mills

PM of seal air blowers

PM of PA fan

PM of FD fan

PM of clinker grinder including gear boxes & hydraulic gates

PM of ID fans

PM of oil guns

PM of gauge glass of boiler drums

Periodical inspection dampers and gates

Periodical inspection of ash hoppers of eco, APH

Periodical inspection of lub.oil system / topping up of lub.oil in various fans, pumps

PM of phosphate dosing pump

PM of motorized actuators

Inspection of raw coal bunkers, and repair by patch work

Welding of low pressure pipe joints

#### B. BREAKDOWN MAINTENANCE OF BOILERS AND AUXILIARIES DESCRIPTION

#### I. RAW COAL FEEDER

DE-bearing replacement

NDE bearing replacement

Drag chain DE/NDE sprocket replacement

Triplex chain DE/NDE sprocket replacement

Gear box drive coupling replacement

Drag chain repairing/ replacement

Feeder chamber repairing

Feeder chamber coal leakage arresting from joints/parting planes, inspection doors.

Feeder sheared pin replacement

RCF gear box bearing replacement

### II. COAL MILL

Suction chute repairing

Foreign material removal from mill

Mill shifter cone repairing

Coal leakage arresting from mill chamber / filling door / inspection door

Ball replacement

Spider block and liner changing

Sweeper assembly repairing / replacement

Seal air chamber repairing / leakage arresting

Nozzle gap adjustment

Gearbox oil adjustment

Lubricant oil line leakage arresting

Lubricant oil filter cleaning / changing

Lubricant oil pump servicing / replacement

Decoupling / coupling with motor

Mill and motor alignment checking / re-alignment

Coupling replacement

Input shaft bearing replacement

Mill motor replacement

#### III. SEAL AIR BLOWER

Bearing grease replacement

Bearing pedestal checking / nuts & bolts tightening/repairing.

Bearing replacement

Casing and suction & discharge piping repairing,

Decoupling and coupling

Alignment checking and re-alignment

## IV. CLINKER GRINDER INCLUDING GEAR BOX, HYDRAULIC GATES, RAW COAI BUNKERS

Closing of gates

Inspection of gear box internals

Replacement of gear box bearings

Cleaning of gates

Miscellaneous work :- Clinker grinding bearing replacements, greasing etc

#### V. P.A. FAN

Suction damper repairing

Suction / discharge liner replacement

DE/NDE bearing replacement

Lubricant oil line leakage attending

Lubricant oil leakage from bearing housing attending

Aux lubricant oil pump servicing / replacement

Lubricant oil filter cleaning

Lubricant oil cooler cleaning

Casing leakage attending

Decoupling and coupling of fan with motor

Alignment checking & re-alignment

DE/NDE bearing housing replacement

Lubricant oil replacement

Suction cone replacement

Motor Replacement

#### VI. F.D. FAN

IGV servicing / repairing

Inspection & if required replacement of DE-Bearing

Inspection & if required replacement of NDE-Bearing

Fan casing repairing

Bearing cooling water line leakage / chocking attending

Bearing lub oil replacement

Decoupling and coupling of fan with motor

Alignment checking and replacement

Motor replacement

#### VII. AIR PRE-HEATER

APH Block leakage repairing by patch welding

#### VIII. I.D. FAN

IGV servicing / repairing

Inspection/replacement of de bearing housing

Inspection /replacement of NDE bearings housing

Greasing of bearings at regular interval

Inspection / monitoring of bearings daily

Repair of fan casing

Decoupling / coupling

Alignment checking / re-alignment

Motor replacement

#### IX. ACW PUMP

Pump gland leakage arresting

De-coupling and coupling

Coupling replacement

Lubricant oil replacement

## X. DUCT & DAMPERS, COAL DUST & FLUE DUST LEAKAGE

Expansion joint repairing

Damper repairing & duct repairing

Coal dust & flue dust leakage attending from various equipments upto APH along with platform repair at different elevations.

## C. MAINTENANCE OF TG AUXILIARIES EQUIPMENTS.

## XI. C.G.T., Predictive, preventive, condition based maintenance. Equipment list is as following.

## Generator Cooling Water Pumps, LP Condensate Pumps, AC Pump, Cooling Water Transfer Pumps, Make-up water Pumps, Sump pit Pumps, LP hot drain transfer pumps.

- a. Gland packing, trouble shooting, Overhauling of pumps. Lube-oil leakage arresting and oil top-Up.
- b. Removal from foundation, Disassembly of couplings, stuffing boxes, bearings, ties bolts. Oil seals ,O-rings etc
- c. Dismantling of all parts like, impellers, diffusers and wear rings etc.
- d. Dimensional check and replacement of damaged parts if required and reassembly.
- e. Decoupling with motor, alignment and coupling after decoupled trial run.
- f. All auxiliary mountings for successful run of the pump.

## **Boiler feed pumps**

- a. Repair/replacement of Gland packing, Mechanical seals, Jackets, Stuffing boxes.
- b. Decoupling with motor, alignment and coupling after decoupled trial run.
- c. Overhauling / replacement of all auxiliary mountings for successful running of the pump like Hydro-coupling inspection, Scoop adjustment, bearing replacement, overhauling jacket cooling, gland cooling, Minimum flow valve actuator overhauling ,trouble shooting and oil replacement as & when required.

- d. Lube oil, water cooling pipe line leakage arresting, strainer/ filters cleaning / changing and MOT oil Top-up.
- e. Overhauling / replacement of Lube oil pumps.
- f. Assist in if any modification requires.

## Main Condensate Extraction Pumps and Vapour extraction fans, MOT H2 Venting Fans, Axial flow fans

- a. Removal of motors and couplings.
- b. Removal from foundation and disassembly.
- c. Demounting of all rotating parts /stationary parts like, impellers/chamber, shaft and bushes etc. Stages parting plane matching as per need and assembly in position with bearing mounting.
- d. Dimensional check and replacement of damaged parts and reassembly.
- e. Associated valves re-visioning.
- f. Shaft adjustment as per need and assembly in position with bearing mounting.
- g. Alignment and coupling after decoupled trial run.
- h. All auxiliary mountings for successful run of the pump.
- i. Assist in if any modification requires.

## GOP, MOP, Auxiliary (AC&DC) Lub. oil pump, AC&DC seal oil pumps

- a. Removal of motors and couplings.
- b. Removal from foundation and disassembly.
- c. Demounting of all rotating parts /stationary parts like, gears screws and bushes etc.
- d. Dimensional check and replacement of damaged parts and reassembly.
- e. N.R.V. and relief valve settings.
- f. Gears /screws matching as per need and assembly in position with bearing mounting.
- g. Alignment and coupling after decoupled trial run.
- h. All auxiliary mountings for successful run of the pump.
- i. Assist in if any modification requires.
- j. Filter cleaning.

#### Reciprocating chemical dozing pumps

- a. Removal of motors and couplings.
- b. Removal from foundation and disassembly.
- c. Demounting of all rotating parts /stationary parts like, worm / worm wheel ,shaft and bushes etc
- d. Dimensional check and replacement of damaged parts and re assembly.
- e. Gear box re-visioning and stroke adjustment.
- f. Shaft adjustment as per need and assembly in position with bearing mounting.
- g. Alignment and coupling after decoupled trial run.
- h. All auxiliary mountings for successful run of the pump.

## **EOT Crane**

- a. L.T, C.T, Aux. hoist, Main hoist, brake adjustment, hydraulic actuator re-visioning.
- b. Brake liner changing and necessary adjustment.
- c. Grease gun and lines repairing.
- d. Reduction gear box and consequent re-visioning of gears and bearings.
- e. Wire Rope changing if needed.
- f. Schedule inspection of crane as per BPSCL Maintenance practice.

PRDUS, De-aerators. Main & starting Ejectors, Gland steam coolers, L. P. Heaters, HP Heaters, Condensers and All Oil Coolers, Oil filters, Process water filters, Seal oil regulator

- a. All associated valve repairs like inner/outer gland, spindle changing, seat matching, blanking/ deblanking etc.
- b. End covers opening and leaking tube plugging and box-up (Exclude Item 09).
- c. Cleaning of oil cooler/ filters, hydraulic test, leakage arresting. Oil top up & shifting oil from store.
- d. Safety valves setting and repair. Overhauling of seal oil regulator and necessary correction.

## Oil purifiers or Oil centrifuges

- a. Disassembly & changing of separator, vertical shaft.
- b. Replacement of damaged bearings, worn -out parts, brake shoe liner.
- c. Oil pumps re-visioning and motor replacement.
- d. Suction/discharge tank internal cleaning.
- e. Vacuum pump re-visioning &motor replacement.

### TG Control (Governing) system, Control valve and Emergency stop valves

- a. Trouble shooting and Overhauling of Turbine control system and control /stop valves.
- b. Replacement of bearing of governing system, MOP and Oil guard repair inside pedestal rotating equipment.
- c. Characteristic setting of TG as per OEM Norms.
- d. Front Pedestal oil system & external oil pipes leakage rectification.
- e. Replacement of Vacuum diaphragm.
- f. Cleaning of front pedestal. MOT lube oil & governing oil filter cleaning.
- g. Turning gear re-visioning.

Normal CGT of all drives/actuators like, oil top up, greasing, cleaning etc. pipes supports inspection and repair/adjustment as per need, repair and modification of platforms and toe guard

Vibration monitoring and temp of turbines and all auxiliary rotating Equipment. Thickness and temp measurement of necessary pipes/bends

### Works of Valves of Boilers and turbines

## XII. SERVICING / REPLACEMENT OF FLANGED TYPE VALVE

- a) 15 mm NB TO 50 mm NB
- b) 65 mm NB TO 100 mm NB
- c) 125 mm NB TO 250 mm NB
- d) 300 mm NB TO 450 mm NB

#### XIII. VALVE GLAND LEAKAGE ARRESTING

- a) 15 mm NB TO 50 mm NB
- b) 65 mm NB TO 100 mm NB
- c) 125 mm NB TO 250 mm NB
- d) 300 mm NB TO 450 mm NB

#### XIV. REPLACEMENT OF WELDED JOINT TYPE VALVE IBR/NON IBR

- a) 15 mm NB TO 50 mm NB
- b) 65 mm NB TO 100 mm NB
- c) 125 mm NB TO 250 mm NB (NON IBR)

#### XV. REPLACEMENT OF GLAND PACKING OF VLAVES

- a) 15 mm NB TO 50 mm NB
- b) 65 mm NB TO 100 mm NB
- c) 125 mm NB TO 250 mm NB

Placement of submersible pump into pit

Leakage rectification of main steam ejector of turbine and auxiliaries

Oil / water / steam leakage arresting of mot lube oil cooler / seal oil cooler / main ejector / gland steam cooler etc.

Periodic cleaning of lube oil coolers /seal oil coolers/leakage rectification

Mot return oil filter cleaning/seal oil filter

Main oil centrifuge / portable centrifuge

- a. Shear pin replacement
- b. Bowel cleaning
- c. Servicing

#### XVI. H2 DRYER

- a) SILICAGEL REPLACEMENT
- b) LEAKAGE ARRESTING

#### XVII. H2 MANIFOLD

- a) LEAKAGE ARRESTING
- b) VALVE REPLACEMENT
- c) H<sub>2</sub> FILLING TUBE MAINTENANCE / REPLACEMENT

#### XVIII. BEND PIPE REPLACEMENT OF DIFFERENT SIZES

- a) 15 mm NB TO 50 mm NB
- b) 65 mm NB TO 100 mm NB
- c) 125 mm NB TO 250 mm NB

Turbine control valve check nut adjustment

Assistance for gov characteristic checking

#### XIX. VALVES BONNET GASKET /FLANGE GASKET REPLACEMENT

- a) 15 mm NB TO 50 mm NB
- **b)** 65 mm NB TO 100 mm NB
- c) 125 mm NB TO 250 mm NB

Oil topping and replacement of BFP and other pumps

Greasing of various pumps / valves / gear boxes (overhauling)

#### XX. SERVICING OF GEAR BOXES OF VALVES / SERVICING OF ACTUATORS

a) UPTO 300 MM Diameters.

Main oil tank oil topping/oil transfer from stores

Oil hose connection from MOT to centrifuge.

#### Scope of work in Electrical Parts under Boiler & Turbine

- 1 Help in Replacement of motor of all HT & LT Drives (including valves)
- 2 Alignment of all drives (including Boiler Feed Pumps & condensate pump)
- 3 Replacement of defective coupling –hub from HT & LT motors.
- 4 Placement of HT, LT motors to foundations or valve gear boxes.

## PART – B: Annual Maintenance Contract of Boiler along with its Auxiliaries and Turbine Auxiliaries of Unit #9.

Plant Details: Boiler Capacity 300 TPH, TG Capacity 36 MW back pressure.

The Scope of Work involves Preventive Running & Breakdown Maintenance of Mechanical Components, within the limit of Boiler and Boiler Auxiliaries, TG & TG Auxiliaries, Valves and Pipes as per the following details:

#### 1) Preventive, Running & Breakdown Maintenance of following parts of Boiler & its auxiliaries:

- i. (06 Nos.) Six Raw Coal Feeders & Hydraulic Gates.
- ii. (03 Nos.) Three Coal Mills.
- iii. (06 Nos.) Six Seal Air Fans.
- iv. (03 Nos.) Three PA Fans.
- v. (02 Nos.) Two FD Fans.
- vi. (02 Nos.) Two ID Fans.
- vii. (02 Nos.) Two Air Compressors.
- viii. Oil Guns, Fuel Oil Pumps (02) Two Nos. along with Atomizing, Scavenging Steam Lines, Igniters, Fuel Oil Lines, Valves, Heaters & Filters.

- ix. (02 Nos.) Two LP Dosing Pump & (02Nos.) two HP Dosing Pumps.
- x. 03 (Three) Nos. Scanner Fans.
- xi. Secondary Air System & Associated Ducts & Dampers.
- xii. Soot Blowers & Associated Valves, Piping inspection, soot leakage arresting from furnace by providing new ropes, suitable welding etc. at different elevations of Boiler.
- xiii. Fire Fighting System
- xiv. Air Pre-Heater
- xv. Other Boiler Auxiliaries (Inspection & Maintenance)

#### > Detailed Scope of Work for Preventive, Running & breakdown maintenance of each Equipments:

## i. Raw Coal Feeders:

- a) Inspection of Belt Drive Reducer Mounting Bolts & Nuts as Necessary, Belt Tracking, and Belt tension, Oil Level in Gear Reducers.
- b) Replacement of gear box, belt drums & belts whenever required as per direction of EIC.
- c) Checking & Tightening Cleanout Conveyor Reducer & Checking Seal Air Adjustment.
- d) Checking Rotating Parts for Evidence of Bearing Failure or Gear Wear & Replacement, if required.
- e) Checking the Feeder for Excessively Worn or Corroded Parts & Repairing the same.
- f) Inspection for Freedom of movement of the Weigh System (Drag Lines, Load Cells, Rollers).
- g) Inspection of the Belt Scrapper for Wear & Proper Operation.
- h) Checking Cleanout Conveyor Chain Tension & Free any Binding Lines.
- i) Bearing Inspection, Greasing of bearings, in case of bearing damage its Replacement.
- j) Inspection & Maintenance of Hydraulic and Pneumatic Gates.
- k) Inspection and Routine Maintenance of Hydraulic Gate Operating Pumps.
- Vou will do cutting, welding, grinding, repairing of different parts if required, decoupling/coupling of motor and replacement of internals whenever required as per direction of EIC in order to ensure earliest availability of the system for operation.
- m) Vibration monitoring of rotating equipments, temperature measurement of all bearings and thickness measurement of necessary pipes/bends.

#### ii. Coal Mills:

- a) Suction Chute Repairing along with Mixing Chamber by doing cutting & welding, if required.
- b) Foreign material removal from mill if there is any.
- c) Coal leakage arresting from mill chamber / filling door / inspection door by doing suitable welding work.
- d) Ball Replacement & Top Up.
- e) Liner Inspection, Bolts tightening & changing when required.
- f) Seal air chamber repairing / leakage arresting
- g) Gearbox Oil Inspection (Auxiliary & Main) along with Girth Gear Lubrication.
- h) Lub oil line leakage arresting.
- i) Lub oil filters cleaning / changing.
- j) Lub oil pump servicing / replacement.
- k) Decoupling / Coupling of Motor.
- 1) Mill and motor alignment checking / re-alignment.
- m) Coupling Replacement
- n) Mill motor Replacement after positioning by Electrical.
- o) Attending Dust Leakages from Mill & Pipes, if any.
- p) Bearings Inspection & replacement of the Mill Gear Box Conveyor, if required.
- g) Girth Gear & Pinion Inspection & Maintenance.
- r) Bolts Tightening Checking of Mill System along with motor.
- s) Girth Gear Fan Inspection & Maintenance.
- t) Bearing Inspection & Replacement wherever required.

- u) Vibration monitoring of rotating equipments, temperature measurement of all bearings and thickness measurement of necessary pipes/bends.
- v) You will do cutting, welding, grinding, repairing of different parts if required, also you will do decoupling/coupling of motor and replacement of internals whenever required as per direction of Engineer in charge in order to ensure earliest availability of the system for operation.

#### iii. Seal Air Fans:

- a) Bearing Grease Replacement.
- b) Bearing Pedestal Checking / Nuts & Bolts Tightening/Repairing.
- c) Bearing Replacement, if required.
- d) Casing and Suction & Discharge Piping Repairing by cutting, welding etc.
- e) Decoupling and Coupling.
- f) In case of breakdown, dismantling the whole fan, shaft removal, metal filling on shaft & achieving the surface finish on shaft, DE/NDE bearing housing and bearing replacement. Assembly of fan, Alignment Checking & Re-alignment of motor with fan. Coupling of fan with motor and load trial.

#### iv. P.A Fan:

- a) Suction & Discharge Damper Repairing.
- b) Suction / discharge liner replacement.
- c) DE/NDE bearing replacement, if required.
- d) Lubricant oil leakage attending from bearing, casing and lines.
- e) Decoupling and coupling of fan with motor.
- f) Alignment Checking & Re-alignment of motor with fan.
- g) Lubricant oil replacement
- h) Suction cone replacement
- i) Inspection & Maintenance of Cooling Discs.
- j) Taking the Vibration reading on daily basis & developing the database.
- k) In case of breakdown, dismantling the whole fan, shaft removal, metal filling on shaft & achieving the surface finish on shaft, DE/NDE bearing housing and bearing replacement. Assembly of fan, Alignment Checking & Re-alignment of motor with fan. Coupling of fan with motor and load trial.

## v. F.D. Fan:

- a) Dampers Servicing / Repairing.
- b) Inspection & if required, replacement of DE-Bearing
- c) Inspection & if required, replacement of NDE- Bearing
- d) Fan Casing Repairing
- e) Bearing Lubricating Oil Replacement
- f) Decoupling and coupling of fan with motor.
- g) Alignment Checking and Replacement
- h) Taking the Vibration reading on daily basis & developing the database.
- i) In case of breakdown, dismantling the whole fan, shaft removal, metal filling on shaft & achieving the surface finish on shaft, DE/NDE bearing housing and bearing replacement. Assembly of fan, Alignment Checking & Re-alignment of motor with fan. Coupling of fan with motor and load trial.

#### vi. I.D. Fan:

- a) Dampers Servicing / Repairing.
- b) Inspection/Replacement of DE Bearing Housing.
- c) Inspection /replacement of NDE bearings housing.
- d) Inspection of Bearings on Regular Basis/ Regular Interval.
- e) Inspection / monitoring of Bearings on daily basis.
- f) Repair of Fans Casing, if required.
- g) De coupling / Coupling.

- h) Alignment checking / Re-alignment.
- i) Cooling Line & Cooler Servicing.
- j) Hydro Coupling Servicing & Maintenance.
- k) Taking the Vibration Reading on Daily basis & developing the database.
- In case of breakdown, dismantling the whole fan, shaft removal, metal filling on shaft & achieving the surface finish on shaft, DE/NDE bearing housing and bearing replacement. Assembly of fan, Alignment Checking & Re-alignment of motor with fan. Coupling of fan with motor and load trial.

#### vii. Air Compressors:

- a) Valve Maintenance...
  - i). Valve Dismantling.
  - ii). Valve Cleaning.
  - iii). Inspection & Reconditioning of Valve Plates, Springs & Spring Plates & Seats.
  - iv). Re assembly & Installation Inspection.
- b) Compressor Piston and Cylinder Air Dryer System Inspection & Maintenance.
- c) Bearing Inspection & Replacement, if required.
- d) Crankshaft, Connecting rod, Bearings & Crosshead Inspection & Maintenance.
- e) Cleaning of Air Filters & Lubricating Oil Filters.
- f) Inspection & Maintenance of Air Driers.
- g) Back Washing of Water Cooled Heat Exchangers.
- h) Periodical Cleaning of Heat Exchanger Tubes by suitable Brushes.
- i) Oil Top up as per the requirements.
- j) Complete Replacement of Used oil with Fresh Oil, if required.
- k) Maintenance of Air Lines and Water Lines and Associated Valves.
- l) Tightness checking of 'V Belts' and Replacement of 'V Belts, if required.

#### viii. Fuel Oil & Firing System:

- a) Maintenance of Fuel Oil lines.
- b) Inspection & Maintenance of Associated Valves.
- c) Cleaning of furnace oil guns as per requirement.

#### ix. Scanner Fans:

- a) Bearing Inspection & Greasing.
- b) Bearing Replacement, if required.
- c) Foundation Bolts, Housing Bolts & Tightness Checking.
- d) Damper Inspection & Maintenance.
- e) Suction & Discharge Line Inspection & Maintenance.
- f) In case of breakdown, dismantling the whole fan, shaft removal, metal filling on shaft & achieving the surface finish on shaft, DE/NDE bearing housing and bearing replacement. Assembly of fan, Alignment Checking & Re-alignment of motor with fan. Coupling of fan with motor and load trial.

#### x. Duct & Dampers of Coal Dust and Flue Dust:

- a) Expansion Joint Repairing.
- b) Damper Repairing & Duct Repairing
- c) Coal Dust & Flue Dust Leakage attending from various Equipments upto APH.
- xi. <u>Fire Fighting System</u>: Inspection & Maintenance of Fire Hydrants & Associated Valves in Boiler & TG Area.
- xii. Air Pre Heater: Inspection & Leakage Repairing by Patch cutting & Welding etc.

#### xiii. Other Boiler Auxiliaries (Inspection & Maintenance):

a) Secondary Air System & Associated Ducts & Dampers

- b) IBD Tank
- c) CBD Tank
- d) SCAPH
- e) SWAS Panel (mechanical parts).

#### 2) Maintenance of TG Auxiliaries Equipments (Mechanical):

## • Boiler feed pumps (03 nos.) with lub. oil pump and hydro coupling:

- a) Repair/replacement of Gland packing /Mechanical seals, Jackets, Stuffing boxes.
- b) Decoupling with motor, alignment and coupling after decoupled trial run.
- c) Overhauling / replacement of all auxiliary mountings for successful running of the pump like Hydro-coupling inspection, Scoop adjustment, bearing replacement, overhauling of jacket cooling, gland cooling line, Minimum flow valve actuator overhauling ,trouble shooting and oil replacement as & when required.
- d) Lube oil, water cooling pipe line leakage arresting, strainer/ filters cleaning / changing and MOT oil Top-up.
- e) Overhauling / replacement of Lube oil pumps.
- f) Assist in minor modification as & when required.

## • Condensate pumps. (02 nos.), Vapour extraction fan:

- a. Gland packing, trouble shooting, Overhauling of pumps. Lube-oil leakage arresting and oil top-Up.
- b. Removal from foundation, Disassembly of couplings, stuffing boxes, bearings, ties bolts. Oil seals, O-rings etc.
- c. Dismantling of all parts like, impellers, diffusers and wear rings etc.
- d. Dimensional check and replacement of damaged parts if required and reassembly.
- e. Decoupling with motor, alignment and coupling after decoupled trial run.
- f. All auxiliary mountings for successful run of the pump/fan.

# Governing oil pumps (02 nos.), Main oil pump, Auxiliary (AC & DC) Lub oil pumps, and AC & DC jacking oil pumps. Drainage oil transfer pump, cooling oil pump:

- a. Removal of motors and couplings.
- b. Removal from foundation and disassembly.
- c. Demounting of all rotating parts /stationary parts like, gears screws and bushes etc.
- d. Dimensional check and replacement of damaged parts and reassembly.
- e. N.R.V. and relief valve settings.
- f. Gears /screws matching as per need and assembly in position with bearing mounting.
- g. Alignment and coupling after decoupled trial run.
- h. All auxiliary mountings for successful run of the pump.
- i. Assist in minor modification as & whenever required.
- j. Filter cleaning.

#### • EOT Crane:

- a. L.T, C.T, Aux. hoist, Main hoist, brake adjustment, hydraulic actuator re-visioning.
- b. Brake liner changing and necessary adjustment.
- c. Grease gun and lines repairing.
- d. Reduction gear box and consequent re-visioning of gears and bearings.
- e. Wire Rope changing if needed.
- f. Schedule inspection of crane as per BPSCL Maintenance practice.

# • PRDUs (03 Nos.) De-aerator & All Oil Coolers, Oil filters, Cooling water filters, Suction Strainer of BFPs. Gland steam cooler:

- a. All associated valve repairs like inner/outer gland, spindle changing, seat matching, blanking/ deblanking etc.
- b. End covers opening, checking for tube leakage, leaking tube plugging and box-up.

- c. Cleaning of oil cooler/filters, hydraulic test, leakage arresting. Oil top up & shifting oil from store.
- d. Safety valves setting and repair.

### • Oil Centrifuge:

- a. Disassembly & changing of separator, vertical shaft.
- b. Replacement of damaged bearings, worn -out parts, brake shoe liner changing.
- c. Oil pumps re-visioning and motor replacement.
- d. Suction/discharge tank internal cleaning.
- e. Vacuum pump re-visioning &motor replacement.

## TG Control (Governing) system, Control valve and Emergency stop valves, Extraction NRVs, Steam traps:

- a. Trouble shooting and Overhauling of Turbine control system and control /stop valves.
- b. Replacement of bearing of governing system, MOP and Oil guard repair inside pedestal rotating equipment.
- c. Characteristic setting of TG as per OEM Norms.
- d. Front Pedestal oil system & external oil pipes leakage rectification.
- e. Cleaning of front pedestal. MOT lube oil & governing oil filter cleaning.
- f. Turning Gear Re-Visioning.
- Normal CGT of all drives and actuators, oil top up, greasing, cleaning etc. inspection of pipe support and repair/adjustment as per need
- Vibration monitoring of turbine and all auxiliary rotating equipments, temperature measurement of all bearings and thickness measurement of necessary pipes/bends

## 3) <u>Common Works of Valves – Boilers, Turbines:</u>

## i. Servicing / Replacement of Flanged Type Valve:

a) 15 mm NB TO 450 mm NB

## ii. Valve Gland Leakage Arresting:

a) 15 mm NB TO 450 mm NB

#### iii. Replacement of Welded Joint Type Valve IBR/Non IBR:

- d) 15 mm NB TO 100 mm NB (IBR, Non-IBR)
- e) 125 mm NB TO 250 mm NB (Non IBR)

#### iv. Bend Pipe Replacement of Different Sizes:

a) 15 mm NB TO 250 mm NB

#### v. Valves Bonnet Gasket /Flange Gasket Replacement (Along With Servicing of Actuator):

a) 15 mm NB TO 250 mm NB

#### vi. Servicing of Gear Boxes of all Valves:

- Placement of Submersible Pump into Pit.
- Oil / Water / Steam Leakage Arresting of MOT Lub. Oil Cooler / Seal Oil Cooler / Main Ejector / Gland Steam Cooler etc.
- Periodic cleaning of lub. oil coolers / seal oil coolers / leakage rectification
- Main Oil Tank return oil filter cleaning/seal oil filter
- Main oil centrifuge / portable centrifuge
  - a. Shear pin replacement
  - b. Bowel cleaning
  - c. Servicing
- Oil topping of BFP
- Oil replacement of BFP
- Oil topping of various pump
- Oil replacement of various pump
- Greasing of various pumps / valves / gear boxes (overhauling)
- Motor oil topping/oil transfer from stores
- Connection of pipeline for oil Centrifuge.

#### vii. Common Practices to be followed by convtractor for Quality Maintenance Job:

- 1) Taking Vibration & temperature reading of bearings of all drives/ equipments on daily basis & developing the database.
- 2) Replacement of Gaskets / Attending Leakages through Boiler Drum Manhole (Welding of Joints is Excluded).
- 3) Removal / Replacement of HT/LT Motors, whenever required.
- 4) Alignment of HT & LT Motors.
- 5) Vibration monitoring of all rotating equipments, temperature measurement of all bearings and thickness measurement of necessary pipes/bends. Preventive Maintenance of Gauge Glass of Boiler Drums
- 6) Periodical Inspection of Dampers and Gates & developing the Database for the same.
- 7) Periodical Inspection of various Fans & Pumps, Topping up of Lubricating oil and developing the database for the same.
- 8) Attending the daily morning meeting at Engineer-in-charge (BPSCL) office.
- 9) CGT of equipments to be done during maintenance of each equipment. The permit to work to be returned after finishing the job and through cleaning of the equipment & its foundation.

## D. DEPLOYMENT OF RESOURCES

#### **Man Power Deployment: -**

- Manpower must consist of site-in-charge, supervisors, mill right fitters, general fitters, welders, riggers, helpers etc. and should ensure to carry out minimum 04 jobs at turbine and 08 jobs at boiler simultaneously and/ or jobs as per site requirements.
- Site In-charge must have degree in engineering having experience of at least five years or diploma in engineering having experience of ten years in similar type of job. All Diploma supervisors should have job experience of at least 02 years of similar nature and Non Diploma supervisors should have job experience of Five (05) Year of similar nature.

## **Indicative Manpower:**

Site in Charge must be deployed on every day except on Weekly off days & Holidays. List of indicative manpower deployed on every day for 365 days in a year.

**For CPP Boiler-** Supervisor: 05 (Diploma 04, Non diploma 01), Work force: 37 (Breakup of work force: General Fitter- 08, Welder-05, Rigger- 05, Helper-15, Mill wright fitter- 04)

**For Turbine**- Supervisor: 02 (Diploma 01, Non diploma 01), Work force: 17 (Breakup of work force: General Fitter- 04, Welder-02, Rigger- 03, Helper-06, Mill wright fitter- 02)

**For Boiler # 9:** Supervisor: 04 (Diploma 03, Non diploma 01),, Work force: 28 (Breakup of work force: General Fitter- 08, Welder-02, Rigger- 04, Helper-13, Mill wright fitter- 01) (Mill wright Fitter- who are competent enough to do HT Motor alignment, precision works of valves, Babbitt bearings, other rotary equipment.)

## E. LIST OF T&P TO BE PROVIDED BY THE CONTRACTOR

1	All Ring & D. E. Spanners upto 65mm	30 sets.
2	Slogging spanners from 36mm to 100mm	02 each
3	Adjustable Spanners 6'',12''	10 Nos. each.
4	Allen key set up to (24 mm)	06 sets.
5	Hammer up to (05 Kg.)	10 Nos.
6	Screw Driver all sizes	10 Nos.
7	Hack – saw Frame	15 Nos.
8	Files (smooth, rough) round, half round, needle file	08 Nos. of each type
9	Inside & Outside circlip plier	06 Nos. each
10	Wire rope (sling) 8mm, 12mm& 16mm (duly tested) in appropriate length	30 Nos. each
11	D. Shackle 2T, 3T, 5T (duly tested)	12 Nos. of each
12	Cutting torch along with regulator & hoses	12 sets
13	Straight grinder,	06 Nos.
14	Chain Pulley block (2T, 3T) (duly tested)	12 Nos. each cap
15	Chain Pulley block (5T,10 T) (duly tested)	05 Nos. each cap
16	Lifting & Pulling machines (3T, 5T) (duly tested)	08 No. each cap
17	Angle Grinder	04 Nos.
18	FF2 Grinder	04 Nos.
19	Welding Generator (with welding cables)	12 Nos.
20	Chisel 8", 12"	10 Nos. each
21	Try Square, Surface plates	04 Nos. each
22	Vernier caliper –BIG & SMALL	04 Nos.
23	Measuring Tape 5 M/03m	05 Nos./03 Nos.
24	Torch	15 Nos.
25	24 V lamps and transformers	20 Nos.
26	Micrometer 0-25,0-50, 0-100, 0-150- Outside, inside, Bore gauge 0-100mm	2 Nos. each
27	Lighting/Extension Boards with proper plugs 5 point	20 Nos.
28	Hand hole cutting M/C, tools & fixtures if required	02 Nos.
29	Multipoint Welding Transformer	02 Nos.
31	Plier, Nose plier, champion set, Allen key set ,Box spanner sets up to 65mm buffing wheel of differ sizes, Rotary cutter up to 30 mm.	As per requirement
32	Tube cutter & Bender, Shim cutter, hacksaw cutter	02 Nos. each
33	Scaffolding materials, Multi meters, soldering iron kit, crimping tools	As per requirement
34	Drill m/c with Bits (size – 4 to 20 mm), Hand Blower, Hand oil pump	03 Nos.
35	Letter punch and Number punch	01 set
36	Boiler Suits (To Work at High Temperature)	03 Nos.
37	Required Fitter hand tools, Gas cutting sets, Welding machines	As per requirement

## **F.** LIST OF CONSUMABLES TO BE PROVIDED BY THE CONTRACTOR:

Sl. No.	Description Description	Quantity / Month (Lump-sum)
1	Welding Electrodes (General Purpose)	
2	LPG Cylinder	
3	Oxygen Cylinder	
4	Cotton, Jute & Cleaning Cloth, Coir string	
5	Grinding Wheel	
6	Cutting Wheel	
7	Rustolin	
8	Teflon Tape, Emery paper & Heck saw blade, Enamel paint.	A a man actival
9	Hold tight	As per actual requirement
10	Misc. (M-seal, Pencil battery, Torch, drill bit etc.)	requirement
11	PVC tape, cello tape, fevi quick	
12	Card cleaner, Contact cleaner	
13	Permanent paint marker	
14	Kerosene / Diesel for cleaning	
15	Steel Putty	
16	Molykote, Holetite, graphite powder	
17	Welding Cables and accessories.	

#### 1.0 COMMENCEMENT AND EXECUTION OF WORK

- i. The date of commencement of works shall be within Twenty-One days from issue of Work Order.
- ii. Work shall be carried out round the clock including holidays & Sunday in all three shifts. No excuse for night hours will be admissible.
- iii. 'Scope of Work' is a guideline to carry out the AMC job but the work not specified and otherwise necessary to ensure the smooth running of the equipment is in the scope of contractor at no extra cost.

#### 2.0 MINIMUM RESOURCES TO BE DEPLOYED BY THE CONTRACTOR:

- 1. The contractor must have proven skilled staffs who have already worked on similar jobs. They should be able to show their experience, competence indicating the period for which they have been working with the firm and their experience on similar jobs. At any point of time, if any of the manpower found lacking in competence or interest, He will be immediately, withdrawn and should be replaced by a competent person as acceptable to the engineer in charge.
- 2. Contractor shall mobilize sufficient manpower to execute the work in prescribed time or as indicated by engineer-in-charge.
- 3. Contractor shall have sufficient number of compatible supervisor/foreman for each area of work during entire execution period.
- 4. It shall be contractor's responsibility to maintain and keep his manpower in specified area only. Strict action would be taken against the contractor and his employees if found in other place and including in unlawful activities.
- 5. BPSCL reserve the right to check the credentials of the working personnel, deployed by the contractor and if not found suitable by Engineer in charge replacement with substitute is to be done.
- 3.0 The contractor shall bring the required material from the store / other sites to the site of work and dispose off the dismantled / damaged parts to the store etc. as per the instruction of the engineer in charge. However, truck / trolley / crane will be provided by BPSCL subject to its availability.

#### 4.0 INPUTS TO BE PROVIDED BY BPSCL (FREE OF COST)

- 1) All interchangeable Spares & Accessories.
- 2) All Machinery's such as EOT Crane / Mobile Crane / Hydra, Truck/ Trailer / Trolley etc. for movement of materials inside the plant.
- 3) Compressed air, Special electrodes, All permanent consumables such as gaskets, gland packing, nut & bolts, grease, lubrication oil, 'O' ring, rubber chord, brazing rods, soldering materials, oil seals bushes, etc. shall be supplied by BPSCL.
- 4) Special tools supplied by OEM, lifting tackles with monorails etc. as installed originally.
- 5) Electricity, Water and storage area.
- 6) Steel structures (plates, channel, angle, sheet etc.), Pipes as per job requirement.
- 7) Laboratory facilities along with instrument testing gadgets for C&I System.
- 8) Machining facility. All the machining works will be done by BPSCL.
- 9) Uncovered / open space for site office / store depending upon requirement / availability.
- 10) To facilitate the execution of work, the electric overhead cranes have been provided on various equipments but in case, the same is not available due to any reason, the contractor shall have to make alternative arrangements to complete the jobs in time.

## 5.0 HOUSE KEEPING OF AREA

- 1. The contractor shall keep the site clean and dispose of all waste material, rubbish etc. during the work itself in specified manner. The contractor shall also remove all temporary arrangements made during working (scaffolding etc.) and shift them to storage area. The contractor shall carry out any measures required to comply with health and hygiene regulations. The site shall be left clean and tidy on daily basis to the satisfaction of the engineer in charge.
- 2. The contractor should not keep / leave any scrap / items hindering the walk ways and working areas.
- 3. All un-used, removed spares and un-used consumables shall be returned to the departmental stores.

#### 6.0 SITE ORGANISATION OF THE CONTRACTOR

- a. The contractor shall authorize one of his representatives to act as overall site in charge for this particular contract with sufficient experience
- b. The site in charge shall co-ordinate all activities to ensure satisfactory working, in addition to his normal duties he shall receive and abide by all instructions given by the engineer-in-charge or his representative for smooth, safe and satisfactory execution of work.
- c. Site in charge will submit time schedule and attend daily progress review meeting.
- d. Site in charge should normally be available at the work site during the execution of the job & should have mobile phone for proper coordination.
- e. Site in charge shall co-ordinate the work and for night shift he should depute one site supervisor as authorized representative of the contractor.
- f. The contractor shall authorize one of his supervisor to look over all safety during execution of work and for all safety aspects of the work.
- g. The contractor shall authorize two or three person to collect materials from BPSCL stores.
- h. The names & contract number of site-in-charge, safety supervisor, material collector and shift site in charge shall be communicated in writing to engineer-in-charge prior to commencement of work.
- i. Contractor shall have to maintain a register and duplicate book showing details of the job to be done against each schedule / sub-schedule on daily basis. Planning meeting will be conducted in morning and evening for reviewing work progress. Next day planning and spare and consumable requirements assessment issues related of safety and housekeeping.
- j. Records of spare & consumables used against each job and equipment is to be maintained by the site supervisor and to be made available on daily basis in planning meeting and he should maintain a computer with printer at site for proper record keeping and planning

#### 7.0 STATUTORY COMPLIANCE

- a) Statutory compliances regarding valid labour license, AWA & ESI shall be binding on the contractor as per labour laws and factory acts and same has to be shown before start of work.
- b) In addition, if there is any change in labour laws after the contract has been awarded, then the new law shall automatically be binding on the contractor.
- c) No additional financial compensation shall be paid by BPSCL to the contractor on account of increased expenditure caused due to above point.
- d) T&P like lifting and pulling tools etc. being used by the contractor must tested and inspection must be carried as per statutory requirement of state govt. factory act / safety norms and a copy of test certificate is to be submitted to engineer in-charge.
- e) The contractor shall compulsorily provide personal protective equipments to his employees and in the event of his not providing the same by the start of work it may be provided by BPSCL at contractor's cost and the cost will be recovered from their bills.
- f) All welding machines should be in good working condition and safe for usage.
- g) Labour license for engaging labour for the work should be submitted before disbursement of wages photocopy of wage sheet is to be submitted.
- h) Before the trial of the equipment written declaration regarding clearance of men & materials to be given.
- i) Prior to demobilization of men & materials, permission is required from engineer in-charge.
- j) **VDA Clause**: During operation of the contract, if there is an upward revision of minimum wage, VDA by the appropriate Government, contractor shall be entitled to reimbursement of such additional amount (wherever applicable) on actual basis subject to production of documentary evidence.

The base date shall be Bid Opening Date or RA Date or Revised Offer Date (in case of negotiated prices), whichever is later. (Note: VDA reimbursement will not be applicable for site in charge & Mill Wright fitter)

#### 8.0 **QUALITY OF WORK**

- i. The engineer-in-charge or his representatives will carry out checks and inspections, however, maintaining the quality of work is primarily responsibility of the contractor.
- ii. The clearances, settings and other measurement affecting quality are to be taken in presence of BPSCL representative and logged in checklist.
- iii. The assembly of equipments after servicing / overhauling, restoring to its original shape and all other assemblies of important / critical nature shall to be done in the presence of BPSCL representatives.
- iv. All work being done on the equipment to be notified to the engineer in charge so that necessary inspection can be done during the progress of work.
- v. The contractor shall ensure that the equipment to be attended is dismantled carefully without damage to any parts. All dismantled parts to be kept in a clean place, well covered, and responsibility of theft / pilferage / damage to dismantled parts lies on the contractor. However, if there is any such damage before dismantling of the equipment, the same is to be shown to the BPSCL representative, who is supervising the job.
- vi. The recovery in respect of any spare which is damaged due to negligence on the part of contractor will be done at the rates as per mentioned in the price catalog of equipment supplier / latest purchase order values or any other source plus BPSCL overheads @25%. Decision of BPSCL will be final in this regards.
- vii. The contractor shall be responsible for the workmanship of the job executed by him. For this purpose, he should stand guarantee of three months. In case of failure, the contractor should get the same attended immediately by deploying additional manpower at his own expenses and the defect liability will get further extended accordingly. If he fails to do the same, BPSCL reserves the right to get it attended by some outside agencies at the contractor's risk and cost.

#### 9.0 SAFETY

The contractor has to strictly follow the safety regulations for safe working of men and equipments, particularly with respect to electrical connections, welding, cutting, pulling and lifting, grinding and of working at high elevations and scaffolding.

- a) The contractor should take proper care of the safety of men at work. All safety appliances of reputed make are to be provided by you to your worker.
- b) The contractor shall ensure that safety of highest standard is ensured by his entire work force. The contractor will be fully responsible for the safety of his workers.
- c) Besides the various statutory requirements prescribed to ensure safety, special attention is here by drawn to the following safety precautions in particular.

#### 10.0 GENERAL SAFETY PRECAUTIONS:

- 1. All persons deployed by contractor should be medically fit. A copy of medical fitness certificate should be submitted.
- 2. Work should be started only after ensuring that valid permit to work is available for working in the relevant area.
- 3. All persons must wear safety helmet, safety shoes and use other personal protective equipment like dust mask, safety belt, hand gloves, grinding goggles and fire restrained clothing as deemed necessary.
- 4. Hand railings / toe guards etc. Wherever removed shall be restored as soon as possible after completion of work.
- 5. Wherever opening has been made in the floor, suitable warning boards will be displayed and the contractor will have to close the opening after completion of job.
- 6. For working in isolated areas viz: pent house, dead chambers etc. At least two persons must be deputed, one being outside to ensure safety of the person working inside.
- 7. Gas cylinders should not be rolled on the ground or carried in bi-cycles etc. Trolleys should be

- used for their transportation.
- 8. For lifting and lowering cylinders proper cage should be used. Anchoring at valve portion should be avoided as the valve is delicate portion of the cylinder and is liable to break causing serious accident.
- 9. All welders, grinder men, and cutters shall use protective goggles.
- 10. Welding cables should have proper insulation. No necked cable should be used.
- 11. While welding or gas cutting, the area where the sparks/hot metal is likely to fall should be identified and all inflammable materials should be removed from or effectively covered in the affected area to prevent any chance of fire.
- 12. All portable hand lamps shall have 24 V bulb, insulated handle and cage guard/cover over the bulbs.
- 13. All electrical cables shall be of double insulated type and joints in electric power supply cables should be avoided to the extent possible. In case joints are unavoidable these should be minimum and the joint should be properly insulated.
- 14. Inserting bare terminals in plug sockets is prohibited. Proper plug tops should be used for connection with switchboards.
- 15. All welding machines, grinding machines, drilling machines etc should have their bodies properly earthed.
- 16. All electrical hand tools should preferably be of fiber body to reduce risk of electric shock.
- 17. All welding machine connections shall be made with welding receptacles only and properly earthed.
- 18. No loose material shall be left at heights as material falling may cause serious injuries.
- 19. Working platforms at height should have adequate space and proper railings. Where permanent railings are not feasible, temporary railings using manila rope or any other means should be provided.
- 20. Toe guards should be provided in the platforms deployed for the work. All scaffolding should be inspected for its soundness and strength, only tubular scaffolding materials should be used.
- 21. Any scaffolding shall be constructed with a minimum of three supports as per safety norms for a standard length plank.
- 22. Proper approaches should be made up to the working area.
- 23. Each scaffolding plank should be properly supported at least at four places. Gaps should not be left between planks.
- 24. All workers working at a height of more than two meters of any other location fall from where is likely to cause injuries should use Full body harness.
- 25. Contractor will submit the proper testing certificates of tools & tackles employed for carrying out the job.

11.0 PENALTY CLAUSES:		
Sl. No.	Description of Cases in Which Penalty will be imposed	Penalty Amount (Rs.)
1.	Failure in carrying out job as per work order.	Rs. 2000/- for each such case.
2.	You will have to strictly adhere to our manpower provision as given in NIT.	For supplying manpower less than the minimum indicative manpower as mentioned in NIT, a penalty of Rs. 200.00 per man day will be imposed in addition to deduction of BPSCL wage rate (as on bid opening date/RA date/Revised offer date (in case of negotiated prices) whichever is later) for respective category of manpower.
3.	For absence of site in charge	a penalty of Rs. 500.00 per man day will be imposed in addition to deduction of Rs. 2000.00 per day for short supply.
4.	For absence of any Mill Wright fitter	a penalty of Rs. 500.00 per man day will be imposed in addition to deduction of Rs. 1000.00 per day for short supply.
5.	If any Breakdown remains unattended after issue of permit.	Rs. 5000/- per hour
6.	If repetition of same breakdown occurs within 24 hours of maintenance due to poor workmanship.	Rs. 5000/- each for such failure case
7.	Feedback of all maintenance job is to be given to the concerned officer on regular basis, failing which penalty will be imposed.	Rs. 1000/- for each such case
8.	After completion of any job, site to be cleared, site should be made free of oil / dust / damaged spares etc. failing which the penalty is will be imposed.	Rs. 1000/- for each such case

## PRICE BID / RA FORMAT

## **Special Instruction –**

1. In the event of L1 Bidder backing out prior to placement of order, in addition to forfeiture of EMD, the bidder shall be suspended for a period of 01 (one) year from the date of issue of suspension order.

## 2. Price Basis: L1 bidder will be decided on mathematically lowest percentage.

Sl. No.	Description of Job	Duration	Total Estimated Cost (excluding GST)	To be quoted by Bidder
1.	Annual Maintenance Contract of		Rs. 2,85,67,149.00	Online Price Bid
	Boiler with its Auxiliaries and Turbine	12	(Rupees Two Crore	(% above / % below with respect to Total
	Auxiliaries of unit 6 to 9.	Months	Eighty Five Lakh Sixty Seven Thousand One	Estimated Cost excluding GST)
	(As per Scope of work)		Hundred Forty Nine Only) Excluding GST.	through URL : http://www.buyjunctio n.in

#### Note:

1. Goods & Service Tax: EXTRA as applicable

Signature with seal of tenderer

## **Self Declaration**

	years son/daughter of Shri Aged
	resident of
1.	. I am the authorized representative and signatory of $M/s$ . (name of the firm/company).
2.	. All document(s) submitted/ information provided by M/s
	Bid Document submitted against Tender No.
	dated
	for(
	Name of work) has/have been submitted under my knowledge and are authentic, genuine and true. No part of the document(s) / information is false, forged or fabricated.
3.	. The above declaration in respect of genuineness of the documents/ information has been made having full knowledge of provisions of bidding conditions which entitle the Owner/BPSCL to initiate action in the event of such declaration turning out to be a false.
4.	. I undertake to produce all documents in original for verification as and when asked for the same by BPSCL.
	(Name & Signature of Authorized person):
	Designation:

CHECKLIST TO BE FILLED BY BIDDER EXCEPT REMARKS:- All documents which are required for fulfillment of the qualifying requirement/ Eligibility criteria are to be submitted along with tender in serial order (clearly mention page no.) and the tenderer must fill the checklist.

## CHECKLIST OF DOCUMENT SUBMITTED BY TENDERER

Sl.	Document	Page No.	Remarks by BPSCL		
No.					
1.	Work Order				
2.	Completion Certificate				
3.	Partnership/ Proprietor				
4.	EPF				
5.	ESIC				
6.	Latest ITR				
7.	* GSTIN				
8.	Turnover/ PL Sheet				
*If	*If the agency is not under the preview of GST then please write Not applicable (N.A.).				
To	Total numbers of pages in Techno-commercial Bid				

Signature of tenderer with seal

## (To be submitted on bidder's Letter Head)

Format for Acceptance of General Terms & Conditions, Commercial Terms and all other Terms of the Reverse Auction

We		(Contractor Name) having
PAN	& registered office at	(Address)
agree to all the Commercia	al, General & other Terms & Condition	s listed in the
NIT No		dated
for the work of		
(Name of work) through R	Leverse Auction.	
	position to do the job as per the scope of vuction and abide by the rules.	work given in NIT/RFQ. We agree to
We nominate an executive,	whose details are given below, to put the b	ids on our behalf.
The details of the person au	thorized to bid on our behalf is as follows.	
Name & Designation	:	
E-mail ID	:	
Contact phone nos.	:	
Address	:	
(Signature & Seal)		
Place	:	
Date	:	

## Format for submitting last quoted prices

(To be submitted on Company Letter Head of the Bidder)

## (To be sent within 30 mins of conclusion of the Reverse Auction)

To,		
mjunction services 1 <sup>st</sup> Floor, Tata Cen 43, Jawaharlal Nel	atre hru Road	
Kolkata – 700 071		
Fax: 033 – 2288 3	279	
Ref: Reverse Auc	tion forfor Bokaro P	ower Supply Co. (P) Ltd. held on
	we hereby confirm our Market wisefor Bokaro Power Supply	e last quoted prices in the Reverse Auction held on Co. (P) Ltd., Bokaro Steel City.
Market No.	Last Quoted Percentage	
	To be submitted by the L-1 Bidder only after finalization of RA	
We also confirm t Auction.	hat we will submit item wise price breat	k-up, within two working days from the date of Reverse
Signature :		
Name :		
Designation :		
Date :		

#### ENVIRONMENT, HEALTH AND SAFETY

## EHS (Environment, Health and Safety) Clause for contracts where overall site is under BPSCL control Your Responsibilities

You shall during the entire term of contract undertake to perform the following obligations relating to environment, health and safety:-

- 1. Ensure that your workforce is not exposed to asbestos or asbestos containing atmosphere.
- 2. Take suitable control measures to ensure that the workers are protected from dust emission.
- 3. Monitor and ensure that the working area is free from any toxic gas, vapour and fume. Take adequate measures to reduce level of concentration below permissible limit. Exposure to any particular toxic gas, vapour or fume shall not exceed the maximum permissible limit prescribed in local regulation for any particular period of time. Ensure adequate ventilation and no immediate danger to life and health of personnel working at site.
- 4. Ensure that there is no flammable atmosphere and uncontrolled fire hazard in and around the work place. In case it is required to work in flammable atmosphere, implement safe working procedure and suitable control measures in order to work safely.
- 5. Ensure that the workers are protected from excessive noise and heat. Take adequate measures to reduce noise/heat level below the permissible limit.
- 6. Ensure safe access and egress in and around work place. Ensure proper maintenance of platforms, staircases, ramps etc. special care and all safety measures should be taken while working at height. Roof work and access to roofs must not be undertaken without prior permit.
- 7. All Personal Protection Equipments supplied by you should be of internationally recognized standards. All tools and tackles bought by you for use during the contract period should have proper and valid certification by competent authority.
- 8. All lifting equipment, tools and accessories provided by BPSCL should be maintained and returned by you in sound condition after the completion of contract period.
- 9. Ensure that the illumination in and around workplace and access areas are maintained properly. Make sure to switch off the light, fan and air conditioners after use.
- 10. You must ensure that all machinery and equipment are provided with earth fault circuit breakers at all times when using electrical leads. Use of electrical tape for temporary repair is prohibited.
- 11. Guards and covers for equipment/machineries are to be provided where ever necessary.
- 12. Gas cylinders shall be securely stored, transported, identified and used in line with legislation and EHS requirements.
- 13. Fire extinguishers and other fire fighting equipments provided in different locations should never be misused.
- 14. You must ensure optimum use of water with minimum wastage.
- 15. You shall ensure that the work area is kept clean, tidy, & free from debris. You are also fully responsible for protection of ground and underground from pollution.
- 16. Identify and highlight potential hazards / risks existing.
- 17. Ensure suitable corrective actions are implemented for identified issues.
- 18. Provide adequate emergency and first-aid facilities and it should be available in all shifts.
- 19. All your workers should be trained and communicated about the onsite emergency and evacuation plan.
- 20. All equipments and plant should be maintained in safe condition.
- 21. You and your personnel admitted to site must conduct themselves in an orderly and safe manner and conform at all times to the EHS Requirements. Fighting, engaging in horseplay, being under the influence of or possessing alcohol or drugs, gambling, soliciting, stealing, immoral or otherwise undesirable conduct is not permitted and shall not be tolerated. Upon knowledge of such conduct, BPSCL shall exclude the concerned person from the site and take all other appropriate measures as deemed necessary. BPSCL reserves the right to perform random drug and alcohol tests.
- 22. You shall immediately notify BPSCL of any environmental incident, injury, illness, near-miss, unsafe condition or practice and any loss or damage to property, including incidents related to the your personnel. An investigation report assessing the root cause, corrective action, and preventative action shall be submitted by to BPSCL within 24-hours of the incident's occurrence.