

BOKARO POWER SUPPLY CO. (P) LTD.

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

CIN:U40300DL2001PTC112074

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

TENDER NOTICE NO.: BPSCL/CEO/P&C/17-18/C-195/NIT-694/6568

Dated 18/12/2017



TENDER DOCUMENT

NAME OF WORK: Annual Maintenance (*Preventive, Running & Breakdown*) and Repair of Electrical and C&I Equipments belonging to BPTG Unit#9.

COST: Rs.1050/-
(Rupees One Thousand Fifty only)

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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

NOTICE INVITING TENDER

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

NIT No. : BPSCL/CEO/P&C/17-18/C-195/NIT-694/6568

Date: 18/12/2017

For and on behalf of BOKARO POWER SUPPLY COMPANY (P) LTD, sealed tenders in three parts, **Part - A** : Cost of Tender document & EMD, **Part- B** : Technical & Commercial Offer and **Part – C** : Online Price Bid are invited, from reputed, experienced and financially sound firms for the following work at our Power Plant.

Description of Work	Annual Maintenance (Preventive, Running & Breakdown) and Repair of Electrical and C&I Equipments belonging to BPTG Unit#9
Earnest Money (in Indian Rs.)	Rs. 1,00,000/- (Rupees One Lakh) only
Cost of tender documents (Non-refundable) (in Indian Rs.)	Rs. 1,050/- (Rupees One Thousand Fifty) Only including GST @ 5%
Period of contract	01 (One) Year from the date of commencement of Work. (However, the Contract Period may be extended for another one (01) year on satisfactory performance)
Last date & time of submission of tender	22/01/2018 at 12.00 Hrs. (IST)
Bid opening Date & Time.	22/01/2018 at 12:15 Hrs. (Part A & B)

Qualifying Requirements / Eligibility Criteria :

1. The bidder should have valid ISO 9001 certification as on date of bid opening.

2. Average annual turnover (AAT)

Bidder should have Minimum average annual turnover (MAT) of **Rs. 20.30 Lakhs**.

- Average annual turnover shall be determined taking into consideration turnover of available 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 last three (03) consecutive years, ending 31st March of the previous financial year duly certified by CA.

3. Technical Capability :

Bidder should have experience of having completed **similar works** 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 offer are invited shall be either of the following:

Three similar completed works each costing not less than to **Rs. 27.00 Lakhs**

OR

Two similar completed works each costing not less than to **Rs. 33.80 Lakhs**

OR

One similar completed work costing not less than to **Rs. 54.00 Lakhs**

- **Similar Work means:** Experience of preventive and breakdown maintenance of electrical system such as generators, transformers (at least 11KV), HT & LT drives and switchgear, 220V DC equipments and C&I system having DCS& PLC based controls and Pneumatic actuation system in a thermal power plant.
- The total value of the contract carried out by the bidder for AMC of Electrical and C&I system, even in separate work orders in last seven (07) years will be combined together (one each for electrical system and C&I system as one set). In case of composite work order comprising Boilers, Turbines along with their C&I and their balance of plant, the bidder has to submit the details of percentage (%) of work done for Boiler & Turbine along with C&I only duly certified by the principal employer along with the bid, failing which evaluation of the offer will be done based upon the available documents.

- *The value of work order(s) submitted by the bidder will be considered on pro rata yearly basis.*
 - 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 etc.)
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 etc.) along with the techno-commercial bid. In addition, bidder shall submit an affidavit as per format at **Annexure-VI**, declaring that the documents submitted by them are genuine.
 5. Credential as subcontractor will not be considered.
 6. Bidding through a consortium is not allowed.
 7. The bidder shall furnish authenticated copies of latest IT Return, GSTIN, EPF certificate, ESI Certificate & valid Electrical license.
- The bidder is also required to submit Annexure VIII & IX as instructed there in.*

General Terms & Conditions:

- i) Offer shall be accompanied with Cost of the tender documents of **Rs. 1,050.00** (non-refundable) in the shape of Demand Draft / Banker's Cheque drawn from any Nationalized / Scheduled Bank except Co-Operative Bank, in favour of **Bokaro Power Supply Company (P) Ltd.**, Payable at Bokaro Steel City.
- ii) Offer shall be accompanied with Earnest Money Deposit (EMD) of **Rs. 1,00,000.00 (Rupees One lakhs) Only** in the shape of Demand Draft / Pay Orders / Bankers Cheque Payable at Bokaro Steel City // Bank Guarantee having validity for, *one (01) year including claim period of 03 months*, 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: www.bpscl.com

In case of forfeiture of EMD by BPSCL the bidder is required to re-imburse the applicable GST to BPSCL.

- iii) However, Micro & small enterprises (MSEs) / PSU /Govt. Undertakings and Co-operative societies will be exempted from submission of cost of tender document & Earnest Money as per government policy. For MSEs the exemption from paying cost of tender document & Earnest Money will be granted only on submission of valid notarized copy of certificate having a valid Entrepreneurs Memorandum (EM) number / Udyog Adhaar Memorandum number (whichever applicable). SSI/NSIC certificate holders should also submit a copy of Entrepreneurs Memorandum / Udyog Adhaar Memorandum number (whichever applicable). However unit claiming exemption is required to submit notarized copy of registration certificate indicating clearly the item category for which they are registered.
If such units do not enclose Entrepreneurs Memorandum (EM) number / Udyog Adhaar Memorandum number (whichever applicable) the unit may be considered as general bidder & required to submit Cost of Tender document and Earnest Money Deposit (EMD).
- iv) **BPSCL reserves the right to :**
 - a) Re-tender / extend the due date of submission of offer, if response to tender is not adequate or otherwise.
 - b) Accept or reject any offer / all offers in full or part at any time at any stage without assigning any reasons whatsoever and without any damage / 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
Sd/-
(J.M Prasad)
DGM (P&C)
Tel : 8986874098
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 03 parts as follows:-

- a) **Part A:** This part Comprises of Cost of Tender document & EMD, NIT No. & date marked with Part A.
- b) **Part B:** This part Comprises of Technical and Commercial details, consent on terms & conditions of NIT along with copy of System generated **acknowledgement-slip** for Online submission of sealed price bid etc. marked with (Part-B) Techno-Commercial Bid, NIT No. & Date (*In hard copy*)

Note: Part A & Part B shall be submitted in hard copy at following address:

DGM (P&C)

Bokaro Power Supply Co. (P) Ltd.

Hall No.M-01, Old ADM Building

Ispat Bhawan, Bokaro Steel City – 827001

Ph: 06452 240380, Tel: 8986874098

- c) **Part C:** Online sealed Price Bid (*Landed cost excluding GST*) through URL : <http://www.buyjunction.in>

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

Step 1: Type <http://www.buyjunction.in> 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 available before proceeding further (where ever applicable).

New Users:

Steps to get your **User Code** 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 Code and Password.
5. Changing of password on first login is compulsory.
6. On receipt of the User Code 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 code 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:

1. **Current price, Market status, Start Bid Price, Bid Decrement, Effective Price** will not be available.
2. Time remaining for the event to close will be shown under the Bid Summary screen.
3. For any clarification on the bidding process please contact
Mr. Manish Nandwana _ 9163348165_ manish.nandwana@mjunction.in
Ms. Monalisa Shaw _ 9163348297_ monalisa.shaw@mjunction.in
Mr. Sumit Kumar Das – 8873002750 - sumit.das@mjunction.in for Bokaro Office
A copy of System generated **acknowledgement-slip** for Online submission of sealed price bid to be submitted along with **Techno-commercial Bid**.

- 1.01.1 A & B part should be sealed in separate envelopes, clearly superscribing on the top of each envelope the relevant part number and description along with NIT reference and date of opening and submit all the parts simultaneously in another sealed envelope clearly superscribing NIT reference and date of opening.

1.02 Tender Validity Period

The tender shall be valid at least for 120 (One hundred twenty) days from the date of opening.

1.03 General

- i) Tenderer's are requested to visit site for actual assessment of the job before submission of their offer.
- ii) The tender rates shall be written in English, both words and figures. In the case of any discrepancy between the words & figures of the rates quoted, the rates expressed in words shall be taken as correct. In the case of discrepancy in the Unit Rate and Amount, Unit Rate will govern.
- iii) All pages of the tender documents, conditions, specifications & all enclosures must be signed with seal of the company at the lower left hand corner by the tenderer before submission of the tender.
- iv) If the intending tenderer is a Firm or Company, then they shall, in the forwarding letter, mention the number and names of all the partners & shall sign before submitting the same, unless the Power of Attorney holder has specifically been authorized in this respect.
- v) If any tenderer withdraws his tender before its acceptance or refuses within a reasonable time without giving any satisfactory and acceptable explanation thereof, the tenderer shall be disqualified for making any tender of the BPSCL for a minimum period of six months and the Earnest Money will be forfeited.
- vi) **Handling of Earnest Money:**
 - a) Earnest Money will be refunded to the un-successful tenderer after finalisation of tender and no interest will be paid for the same. Bidders are requested to provide Bank Details for refund of EMD.
 - b) The amount of Earnest money may be adjusted against Security Deposit only in case of successful Tenderer.
- vii) 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.
- viii) **Any conditional offer or offer having deviations from our qualifying requirement, specification & instruction sheets is liable to be rejected.**
- ix) BPSCL reserves the right either to reject any/all the tenders without assigning any reason thereof.

General Terms and Conditions

- 2.01 Bidders are requested to visit the site before submission of the bid to get acquainted with actual site condition.
- 2.02 You will have to follow and observe the safety & statutory requirements.
- 2.03 You will have to be fully responsible for any sort of unsafe activity of your workmen.
- 2.04 All working personnel should have proper safety certificates issued by BPSCL before start of work.
- 2.05 Supervision of the work has to be carried out by the agency.
- 2.06 Work is to be carried out as per instruction & satisfaction of the Engineer-In-Charge.
- 2.07 Rates are to be quoted on firm price basis. Any conditional offer is liable to be rejected.
- 2.08 In case of any documents/information submitted by the bidder(s) found to be false or suppression of document or containing any misrepresentation of having any fraudulent declaration in it then in such eventuality legal action (including cancellation of contract, banning of business dealing, forfeiture of EMD, criminal proceedings etc.) as deemed fit may be initiated by BPSCL against the bidder.
- 2.09 **Payment Terms :**
90% of contract value will be paid on pro-rata basis on progressive jobs duly certified by Engineer In-Charge and balance 10% will be retained as security deposit which will be released after 03 months of satisfactory execution of work.

The expression satisfactory execution of the order shall mean fulfillment of all obligation arising out of and the guarantees stipulated in the contract. In default at satisfactory execution of the order the security deposit shall be forfeited to the BPSCL.

Any penalty for which the successful tenderer shall be found liable or any liquidated damages which shall be payable to the BPSCL in terms of the Contract, shall also be recoverable by the BPSCL from the Security deposit. If such security deposit will not be adequate for the purpose of liquidating the amount of penalty and/or damages as contemplated, the amount in excess thereof shall be deducted from any sum or sums which may be due or may become due to the successful tenderer from the BPSCL on any account whatsoever.

Notwithstanding what has been stated above if the successful tenderer shall have duly performed all his obligation under and the guarantees stipulated in the contract and observe all the terms and conditions thereof and no penalty shall have been recoverable from him and / or the BPSCL shall not have suffered any damages whatsoever, then security deposit shall be refunded, on receipt of a certificate from the Engineer in - charge that there is no claim against the Successful tenderer under the Contract.

- 2.10 Bidder will produce medical fitness certificate for his workers prior to CLC clearance for working at height. Height passes to be obtained from safety department.
- 2.11 You will have to strictly adhere to the provision of various labour laws including payment of bonus Act 1965.
- 2.12 You will have to pay Rs.4/- extra to the working persons as per BPSCL rules above minimum wage of one day.
- 2.13 Offer is to either type written or by handwritten and in no case partly type written and partly hand written. No corrections, overtyping shall be permitted without duly authenticated.
- 2.14 Tenders shall be accompanied by a copy of latest IT Return submitted, GSTIN of the Individual/Party/Firm submitting the Tender.
- 2.15 Paying authority –In - charge (F&A), BPSCL.
- 2.16 Tenderers shall quote their firm rates and no negotiations will be held except with the lowest tenderer, if required.
- 2.17 In accepting the order you are understood to accept to all responsibilities for completing the work in all respect.

2.18 **GST Related Clauses :**

- a. All bidders should strictly quote GST as extra. Offers with GST as inclusive will not be acceptable and will be liable for rejection.
- b. Bidders have to submit their GSTIN registration details to BPSCL along with supporting documents.

1	GSTIN		
2	Service Accounting Code No.		
3	A	CGST (in %)	
	B	SGST (in %)	
	C	IGST (in %)	
4	Total GST (3A+3B+3C) (in %)		

- c. Bidder would pass on the tax benefit/savings, if any, on account of output taxes to BPSCL.
- d. Bidder 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.
- a. In case the Input Tax Credit of GST is denied or demand is recovered from BPSCL on account of any non-compliance by the Supplier/ Contractor, including non-payment of GST charged and recovered, the Supplier/ Contractor 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 the vendor, BPSCL will not be liable to reimburse any part of such differential tax, interest, penalty etc. It will be the sole responsibility of the vendor to discharge appropriate taxes, as applicable.
- b. Supplier/ Contractor shall maintain high GST compliance rating track record at any given point of time.

2.19 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.

2.20 **VDA Clause** : During operation of the contract, if there is an upward revision of minimum wages, VDA by the appropriate Government, the bidder shall be entitled to reimbursement of such additional amount on actual basis subject to production of documentary evidence. The base date shall be the Bid opening date OR Revised offer date (in case of negotiated prices)

2.21 **Work accident** :

- a. You will be totally responsible for the safety of the workers employed by them. In the event of any work-accident, major or minor, your representative you must take care of the injured person immediately and provide him the required treatment as suggested by the doctor. The injured person may be admitted to BGH for the treatment by paying the charges as demanded by the hospital authority.
- b. You shall be fully responsible for making payment of compensation to your own workmen or to those of your sub-contractor 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

- 2.22 **SUBMISSION OF BANK GUARANTEE FOR QUOTING UNWORKABLE RATE:**
if a tenderer quotes unworkable rates i.e. if the quoted price is less than the lower limit of the estimated price and is considered for placement of order, the party will be asked to justify the rate quoted and will have to give Performance Guarantee Bond (in addition to the Security Deposit) in the form of Bank Draft/Bank Guarantee. The amount of Performance Guarantee Bond will be equal to the difference between lower limit of estimated price and quoted price of the tenderer. Earnest Money of the tenderers who refuse to give Performance Guarantee Bond will be forfeited and they will not be considered for taking participation in any kind of Tender for next Six (06) months from the date of issue of letter to the Defaulter Firm, if order / contract is not finalised from the present tender.

In case of forfeiture of Performance Guarantee Bond the contractor is required to reimburse the applicable GST to BPSCL.

2.23 **RATE FINALIZATION:**

BPSCL reserves the right to finalize the rate through either of the following modes:

1. a. Either through Online Seal Bid Price Bid obtained just before Reverse Auction

OR

- b. Opening of Online Price (*submitted on www.buyjunction.in*) / physical Price Bid, submitted at the time of techno-commercial bid.
2. Through Reverse Auction to be conducted by our service provider M/s. mjunction.
3. If RA is not concluded for any reason, RA may be re-launched or case may be determined on the basis of online/physical price received along with the techno-commercial bid.
4. Where it is decided not to conduct the RA, the techno-commercially accepted bidders shall be asked to submit online sealed or physical sealed decrement/s. In this case – On line/ physical price bid/s and online decrement or physical decrements, as decided by BPSCL, shall be opened together on same day and case be processed.

- 2.24 **FORCE MAJEURE** : Bidder shall not be considered in default if delay occurs due to cause beyond their 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 clause the delivery / completion period will be extended for a length of time equal to the period of force majeure of at the option of owner order may be cancelled without any liability what so ever on the part of the owner.

- 2.25 **The Parties should clearly indicate their prices firm in all respects till execution of the work order.**

- 2.26 **Special Instruction:** Tender will be opened on **22.01.2018 at 12.15 PM**. If it is declared a holiday by BPSCL then in the next working day at the same time in the presence of Tenderer's Authorized Representatives, who wish to be present.

Scope of works:**1. ANNUAL MAINTENANCE (PREVENTIVE, RUNNING & BREAKDOWN) AND REPAIR OF ELECTRICAL EQUIPMENTS:****1.1. Generator & Auxiliaries:****Activities involved:**

- a. All kinds of preventive, running & breakdown maintenance of Generator, its Excitation System, Bus duct and other associated auxiliaries & AVR panel.
- b. Fault finding and rectification whenever required.
- c. Minor testing activities like IR Testing, Continuity Checking, etc., whenever required and as per direction of Engineer In-charge.

Equipments covered:

- a. 36 MW, 11 kV Generator
- b. Generator Excitation System, including AVR system, Generator Protection System and Protection Panel
- c. Generator Control System and Control Desk
- d. 11 kV Bus-duct from Generator to 11 kV Switchgear. All accessories like CTs, PTs, LAs, Space Heaters, Generator cooler, turning gear, auxiliary etc.

1.2. 11 KV, 6.6 KV, 415 V Switchgears, Control Panels, Control Desks, etc.:**Activities involved:**

- a. All kinds of preventive, running & breakdown maintenance of all the above equipments.
- b. General preventive & breakdown maintenance of VCBs & ACBs including tightening of contacts, checking & rectification of defects, bus-ducts etc.
- c. Fault finding and rectification thereof, whenever required,
- d. Minor testing activities like IR Testing, Continuity Checking, etc., whenever required and as per direction of Engineer In-charge.

Equipments covered:

- a. **11 KV Switchgear**
 - 11 KV Switchgear Panels (08 nos.)
 - 11 KV VCBs (07 nos.)
 - 11 KV Bus PT (01 no.)
 - Protection Relays of all 08 panels
 - Control Systems of all 08 feeders / panels
 - All accessories like CTs, PTs, Space Heaters, etc.
- b. **6.6 KV Switchgear**
 - 6.6 KV Switchgear Panels (39 nos.)
 - 6.6 KV Cabling Panels (02 nos.)
 - 6.6 KV VCBs (37 nos.)
 - 6.6 KV Bus PTs (02 nos.)
 - Protection Relays of all 39 panels
 - Control Systems of all 39 feeders / panels
 - All accessories like CTs, PTs, Space Heaters, relays, contactors, fuses, transducers, meters, switches, MCBs, ROTs, etc.
- c. **LT PDBs, MCCs, Control Desks, Control Panels, etc.**
 - c.1. Main Plant Sub-station, DM Plant Sub-station, WCTP Sub-station:

- All PDBs, MCCs, ACDBs & Aux. ACDBs, DCDBs & Aux. DCDBs, LDBs, etc., at the above sub-stations.
- ACBs installed in the above.
- ACB installed in LT Reserve Supply Panel (powered from 50T) at existing WCTP which serves as reserve supply feeder to WCTP Sub-station LT PDB.
- Protection systems & Relays associated with the above.
- All accessories like CTs, PTs, Contactors, Aux. Relays, Fuses, Transducers, Meters, Switches, MCBs, MCCBs, MPCBs, ROTs, Control Transformers, etc., installed in the above.

c.2. Switchgear Building

- All PDBs, MCCs, ACDBs & Aux. ACDBs, DCDBs & Aux. DCDBs, MLDBs & LDBs, etc.
- ACBs installed in the above
- Protection systems & Relays associated with the above
- All accessories like CTs, PTs, Contactors, Aux. Relays, Fuses, Transducers, Meters, Switches, MCBs, MCCBs, MPCBs, ROTs, Control Transformers, etc., installed in the above

c.3. Pump House # 3&Auxiliary of Cooling Water System, Booster Pump House

- Star-Delta Motor Starter Panels.
- All PDBs, MCCs, ACDBs & Aux. ACDBs, DCDBs & Aux. DCDBs, LDBs, etc., in the above areas.
- ACBs installed in the above.
- Control Desk in the above areas.
- Protection systems & Relays associated with the above.
- All accessories like CTs, PTs, Contactors, Aux. Relays, Fuses, Transducers, Meters, Switches, MCBs, MCCBs, MPCBs, ROTs, Control Transformers, etc., installed in the above.

c.4. Main Control Room, Switchyard Control Room (at ECR – II Extension Building)

- Remote Control Panel at Main Control Room
- Remote Control Panel at Switchyard Control Room
- Aux. ACDB, Aux. DCDB & LDB, Emergency Lighting DB at Switchyard Control Room
- RTCC Panels at Main Control Room & Switchyard Control Room

1.3. Motors:

Activities involved:

- a. Coupling / De-coupling of motors (HT / LT) for maintenance purposes, whenever required.
- b. Connection / disconnection of cables from motors for maintenance purposes, whenever required.
- c. Removal / placement of motors from / on foundations for maintenance purposes, whenever required.
- d. Replacement of damaged motor with a healthy one, whenever required.
- e. Regular greasing / oil top up of motor bearings.
- f. Regular cleaning of cooler tubes with compressed air or any other suitable means, whenever found necessary.
- g. Repair of cooler tubes, if required,
- h. Heating & drying out of motors with suitable means, whenever found necessary and as per direction of Engineer In-charge.
- i. Assisting BPSCCL in transporting damaged motors to repair facilities.

- j. Unloading and storage of motors received after repair at suitable space provided by BPSCL.
- k. Minor testing activities like IR Testing, Continuity Checking, etc., whenever required and as per direction of Engineer In-charge.
- l. Medium repair of motors including replacement of damaged bearings, fans, fan covers, couplings, etc.
- m. Running of decoupled motors, in coordination with operation personnel, for confirming DoR, checking vibration & noise levels and other relevant parameters.

Equipments covered:

- a. All 6.6 kV Motors (13 nos.) in BTG
- b. All LT AC Motors & drives in BTG, Cooling Water Pump House & Cooling Towers, DM Water Pump House, Booster Pump House for Fire Fighting System, etc.
- c. All DC Motors & drives in BTG portion (DC Scanner Air Fan, DC Start Up Oil Pump & DC Jacking Oil Pump)
- d. All accessories like CTs, Space Heaters, LPBSs, etc.

1.4. UPS and DC Charger Systems:

Activities involved:

- a. Identification and rectification of faults, whenever required with scheduled maintenance on regular basis of UPS systems.
- b. Replacement of defective cards / components with healthy ones, whenever required and as per direction of Engineer In-charge.
- c. Checking of output parameters after repair works.
- d. Minor card repair works, to the extent possible, with assistance from C&I Lab of BPSCL.
- e. Regular measurement of cell voltages and specific gravity of acid in battery banks for both the UPS and DC Charger Systems.
- f. Topping up of DM Water in cells of UPS and Charger Systems, whenever required and as per direction of Engineer In-charge.
- g. Assisting BPSCL personnel in Boost / Float Charging of Batteries, whenever required.
- h. UPS of CHP& AHP along with its battery bank.

Equipments covered:

- a. **UPS System with auxiliary**
 - 02 nos. UPS Systems for BTG portion
 - 02 nos. Battery Banks for BTG UPS Systems
 - Control Systems for the above UPS Systems.
 - 02 nos. UPS system along with battery bank of CHP& AHP.
- b. **DC Charger System**
 - 04 nos. Battery Chargers in BTG portion
 - 04 nos. Battery Banks for BTG DC Charger System
 - Control Systems for the above DC Charger Systems

1.5. Valves & Dampers:

Activities involved:

- a. Opening & closing Limit setting.
- b. Torque limit setting.
- c. Checking & replacement of various valve components, like cards, micro switches, motor, etc., whenever required.
- d. Tuning of inching type valves.

Equipments covered:

- a. All electrically operated Valves & Dampers in BTG area, Ash Handling Plant, Cooling Water System, Cooling Towers, DM Water System, Ash Water System, and Fire Fighting System.

1.6. Transformers & associated Bus ducts, Isolators, etc.:

Activities involved:

- a. Regular checking for oil leakages, if any, from tank covers, bushings, valves, radiators, etc., and taking necessary action for arresting such leakages as per direction of Engineer In-charge.
- b. Regular checking of oil levels in conservator tanks and topping up with fresh oil, whenever necessary, as per direction of Engineer In-charge.
- c. Regular inspection of Silica Gel and Oil in Breather. Drying out of Silica Gel and taking other corrective actions, whenever required.
- d. Checking of Buchholz Relay for gas accumulation, oil leakage, etc.
- e. Taking out oil from transformers and checking their BDV at regular intervals.
- f. Monitoring of oil & winding temperatures in case of oil filled transformers and winding temperatures in case of dry type transformers on regular basis.
- g. During shutdown of transformers following preventive maintenance activities shall have to be carried out:
 - Checking of control circuitry,
 - Checking of power & control circuit connections for tightness,
 - Overall all checking of various components like explosion vent, bushings, temperature indicators, Buchholz Relay, cooling fans, etc. and rectification of defects, if any,
 - Minor testing activities, like IR Testing, Winding Resistance & Continuity checking, etc., if required,
 - Cleaning & blowing of bushings, control cabinets, fittings, marshalling box etc.
 - Any other job deemed necessary, shall have to be carried out.
- h. During shutdowns, following activities shall have to be carried out in Bus ducts:
 - Checking of Inspection opening covers for tightness and proper sealing,
 - Checking of Bus supporting bolts, Insulator fixing bolts, etc., and tightening thereof, if necessary,
 - Inspection, cleaning & tightening of connections, if necessary, of CTs, PTs & other accessories,
 - Testing of Bus ducts before and after maintenance jobs,
 - Rectification of defects, if any.

Equipments covered:

- a. Oil Filled Transformers
 - Unit Auxiliary Transformer: 12.5 MVA
 - DM Plant Sub-station: 1 MVA
 - Ash Handling Plant Sub-station: 1 MVA
 - WCTP Sub-station: 630 KVA
 - Earthing Transformers: 6.6 kV
- b. Dry type Transformers
 - Main Plant Sub-station: 2 MVA
 - ESP Sub-station: 2 MVA
 - Lighting Transformers: 350 KVA
- c. Neutral Grounding Transformer – 01 no.
- d. 6.6 kV Isolator at WCTP Sub-station
- e. Associated Bus-ducts of all the above transformers

1.7. PLC System of CHP:

Activities involved:

- a. Replacement of defective components / cards of PLC , whenever necessary, as per direction of Engineer In-charge,
- b. General preventive & breakdown maintenance of PLC systems, work stations, printers, Ethernet switches, junction boxes, marshalling boxes, etc.
- c. Restoring power supply to PLC systems.

Equipments covered:

- a. PLC panels, work stations, printers, switches etc.
- b. General maintenance & power supply restoration of work stations and other accessories installed at Coal Handling Plant.
- c. Trouble shooting of PLC & interfacing of drives with PLC for needful monitoring.

1.8. Illumination:**Activities involved:**

- a. Maintenance of entire Illumination (In-house, Area and Street Lighting) system of areas covered under the scope.
- b. Maintenance of DC Emergency Lighting System of areas covered under the scope.
- c. Maintenance of all Ceiling Fans, Wall Mounted Fans, Exhaust Fans, Pedestal Fans, etc., installed in the areas covered under the scope.
- d. Maintenance of all welding sockets, power receptacles, 1Ø & 3Ø power outlets, etc. installed in areas under the scope.
- e. Erection of new items of the above, if required, as per direction of Engineer In-charge.

Equipments covered:

- a. Entire Illumination of BTG area (Turbine Hall to Chimney, at all levels)
- b. Entire Illumination of Booster Pump House
- c. Entire Illumination of Switchgear Building, including cable gallery
- d. Entire Illumination of DM Water Pump House and sub-station
- e. Entire Illumination of Cooling Water Pump House, Cooling Towers and sub-station
- f. Entire Illumination of Switchyard Control Room
- g. Entire Illumination of Chimney
- h. Area and Street Lighting in the above areas
- i. DC Emergency Lighting in the above areas
- j. Exhaust Fans, Ceiling Fans, Table Fans, Wall Mounted Fans, Pedestal Fans and air washer etc., installed in the above areas.
- k. Welding sockets, power receptacles, etc. in the above areas

1.9. Cables & Cable Trays:**Activities involved:**

- a. Checking of tightness of connections of cables (HT, LT, power & control) at both panel and equipment ends and tightening of the same, if necessary,
- b. Connection & disconnection of cables at both panel and equipment ends for facilitating maintenance activities,
- c. Fixing of lugs through crimping at cable ends, whenever necessary,
- d. Removal of damaged cables and laying of new cables, whenever required,
- e. Straight through joint and end termination of cables (HT, LT, power & control), whenever required,
- f. Sealing of cable entry points in panels, equipments, junction boxes, etc., whenever required,
- g. IR & continuity testing of cables (HT, LT, Power & Control), whenever required,
- h. Erection / repair / dismantling of Cable Trays along with their supporting structures, if required.

Equipments covered:

- a. All HT Cables (6.6 kV & 11 kV) from HT Switchgears to respective equipments.
- b. All LT Cables (415 V) from LT Switchgears to respective equipments.
- c. All Control wiring associated with the above equipments (1.1 to 1.11)
- d. All cabling associated with Illumination (listed under 1.12 above)
- e. All cable trays associated with above cabling.

1.10. Earthing System:

Activities involved:

- a. Regular inspection of Earth pits & Earth Grid,
- b. Regular measurement of earth resistance of individual pits as well as grid,
- c. Application of Brine solution, charcoal, etc. to pits, whenever required,
- d. Checking of earthing connections to different equipments, panels, junction boxes, structures, etc. and rectifying defects, if any,
- e. Replacement of damaged earth strips, electrodes, etc., whenever required,
- f. Maintenance of Lightning protection system, associated earth pits, other accessories, etc.

Equipments covered:

- a. All Earth Pits (treated as well as untreated) in BTG, Ash Handling Plant, Switchgear Building, Switchyard Control Room Building, DM Plant Substation, WCTP Substation, ESP, ESP Sub-station, Pump House # I, Cooling Towers, Pump House # II, Pump House # III, Booster Pump House, UAT, etc., area.
- b. Entire Earthing Grid in the above areas.

1.11. Miscellaneous Electrics:

Activities involved:

- a. Igniters:
 - Checking of sparks in exciter boxes of all Igniters at regular intervals,
 - General preventive maintenance of all electrics of the Igniter systems,
 - Replacement of components / parts of the Igniter systems or replacement of the entire Igniter system, if required.
- b. Metering equipments:
 - Checking of all types of metering devices installed in various Switchgears, Control Panels, etc. for their healthiness,
 - Replacement of defective meters by healthy ones, whenever required.
- c. Indication Lamps & Annunciation Systems:
 - Regular checking of Indication Lamps installed in various Switchgears, Control Panels, LPBSs, etc. for their healthiness,
 - Replacement of defective indication lamps with healthy ones, whenever required,
 - Regular checking of Annunciation Windows and Hooters installed in various Switchgears, Control Panels, etc., for their healthiness,
 - Replacement of defective Annunciation Windows or parts thereof and Hooters, whenever required, as per direction of Engineer In-charge.

Equipments covered:

- a. Igniters (entire assembly from Exciter Box to Spark Tip)
- b. All metering equipments in the above mentioned Switchgears, Control Desks, panels, etc.
- c. All Indication Lamps in the above mentioned Switchgears, Control Desks, panels, overhead crane (EOT), compressor motors etc.

1.12. General points:

- a. Regular Cleaning & Blowing of all equipments, panels, JBs, Lighting Fixtures, etc.,
- b. Regular greasing / oil top up in bearings of all rotating electrical equipments,
- c. Minor testing activities, like IR Testing, Earth Resistance Testing, Continuity Checking, Winding Resistance & Inductance Measurement, etc., and logging of measured values in a proper manner,
- d. Maintaining of record of all preventive and breakdown maintenance activities in log book,
- e. Maintaining equipment wise preventive and breakdown maintenance records for critical equipments,
- f. Maintaining record of Cell Voltage & Specific Gravity for all battery Banks of UPS and DC Charger Systems,
- g. Maintaining of equipments wise schedule of preventive and breakdown maintenance.

2. ANNUAL MAINTENANCE (PREVENTIVE, RUNNING & BREAKDOWN) AND REPAIR OF CONTROL AND INSTRUMENTATION EQUIPMENTS:

The job under mandatory scope of work is to be carried out during preventive maintenance and as and when required on instruction of Engineer I/C. The objectives shall be overall supervision for healthiness of the instruments of above said areas to minimize the breakdown, minimize the down time to avoid generation loss and to ensure maximum availability for the instruments covered under this AMC.

A list of work, which is indicative and not limiting, is given below.

Maintenance Jobs:

A. Boiler

Cleaning/ Checking/servicing/ repairing at site where ever possible/ replacement with new ones after getting it issued from BPSCL site store as and when required, along with their associated cables (including compensating cables) up to Marshalling cabinet in Control room through field JB(s) of the following types of field instruments with their own tools (general and special):

1. RTDs, T/C and temp scanners.
2. All types of Pressure, Temperature, Differential Pressure, Flow, Level, Conductivity, pH, Silica, dissolved oxygen and Position Transmitters.
3. All types of Pressure, Temperature, Differential Pressure, Flow, Level, limit and Position switches.
4. SWAS: Analyzer maintenance & Panel cleaning, checking & maintenance of Leakage in sampling lines and regular monitoring of parameters.
5. Air filter regulators, I/P converters, positioners, Position feedback transmitters, Power cylinder and actuators of Pneumatic valves.
6. Solenoid valves.
7. Pressure, Flow, Temperature, level and D. P. Gauges.
8. Copper / SS Tubing.
9. Impulse lines including SS tubing (from root valve up to Instruments). (Purging, arresting of leakage, arresting of passing through drain/ isolation valve etc including welding wherever required).
10. All types of Gas analyzer including Dust monitoring system.
11. Flame Scanner system, Oil & Coal firing instruments.
12. Hydrastep(CTLI): Electrodes change, checking / changing of cables, panel maintenance & cleaning etc.
13. Oil flow meter: Regular maintenance.
14. Gravimetric coal feeder instrumentation system: Feeder calibration, panel maintenance & cleaning, replacement of load cells etc.
15. Radar level Transmitters: Maintenance.
16. Mill DP Level instrumentation system: Maintenance.
17. Purging, Draining (both periodical and as & when required) of impulse lines related to the instruments covered under AMC.
18. All field instruments related to VMS (HT drive), regular maintenance.
19. All field instruments and actuators related to Fuel oil System starting from fuel oil-pump house.
20. All field instruments, solenoids, actuators and associated cabling related to main compressor house.

B. Turbine

1. Maintenance of all control panels, JB and cabling associated with Turbine instrumentation.
2. All the field C&I items related to HP system (stop valve, control valve, HP units) including servicing/cleaning/ replacement (if required) of servo valves, pressure switches, trip solenoids and calibration of pressure, temp & position feedback transmitters.
3. Maintenance of over-speed protection panel.
4. Maintenance of field instruments related to turbo-visory system and TSI panel.
5. Field instruments and cabling related to lubricating oil system of TG.
6. Field items pertaining to C&I system of Generator Instrumentation panel.
7. Field instruments pertaining to C&I system of BFP area, turbine inlet steam line and cooling water lines.

C. Control Room Instruments (Day to day maintenance including cleaning:)

1. Indicators at UCP. (All types)
2. Cleaning of UCD, UCP, DDCMIS panels, LVS, Different PLC panel and other instrument panels in control rooms.
3. Maintaining paper/ ribbon / cartridge in printers of DDCMIS system.
4. Regular cleaning of different OWS, EWS, Bentley system 1 others servers.
5. LVS, DDCMIS panels & Different DDCMIS server: cleaning including work assistance to BPSCL Engineers during troubleshooting.
6. PLC system under the compressor house area.
7. Maintenance of Modbus and OPC servers along with cables up to client system and other accessories.

D. Others:

1. Scope of work also included the work assistance to BPSCL Engineers during Simulation checking for Healthiness of HT/LT drives inter-lock and protection logic, OLCS, CLCS etc pertaining to C&I system of boiler and turbine .
2. Shifting of the materials / spares from main store to site store is also included in the scope of work.
3. Short term overhauling work assistance is also included in the scope of work.
4. All electrical accessories / cabling/ wiring associated with C&I system including Distribution panel, earthing of various equipments / desks/ panels / cabinets / JB's /etc as when require

Note:

- i) All the above jobs carry a defect liability period of 3 months based on nature of jobs.
- ii) Any fault arising during this period will have to be rectified free of cost.
- iii) The Contractor has to arrange any specialized /additional manpower to execute the job.

3. TROUBLE SHOOTING IN ALL THE THREE SHIFTS:

If any trouble arises in the electrical equipments of Boiler areas, it is to be solved immediately. Readiness for taking up a job should always be there round the clock. Hence, working-personnel will have to be posted by the contractor in all the three shifts covering 24 hours on all days including Sundays& holidays so that, the defect-rectification job could be started immediately as soon as the problem arises. A back-up group will always be ready even in odd hours to tackle the problem, if the front-line repair- man feels any difficulty in solving the problem.

4. ATTENDING TO BREAKDOWNS:

- i. If a breakdown occurs, the expert attending-group will have to be present at the occurrence- site and report to the control engineer (electrical section) within half an hour.
- ii. The affected portion is to be isolated under the guidance of control engineer (electrical section) and breakdown-repair-work is to be started immediately after receiving work-permit.
- iii. After attending to the breakdown, the system is to be normalized back again under the guidance of control engineer (electrical section)
- iv. During breakdown, the repair-job is to be continued round the clock until the affected part is attended and normalized back.

5. RECORD-KEEPING & REPORT-MAKING

- i. The contractor will maintain job-progress record on daily, monthly and annual basis.
- ii. Drawing development of spare parts of electrical drives like end shield, etc. in CAD software.
- iii. Check-list will have to be filled- up pertaining to each equipment as and when the equipment is taken for maintenance and repair.

- iv. Maintenance and repair record of all the equipments of indoor switchgear system along with their technical specifications will have to be maintained. Logging of operation & maintenance records in log books / sheets as per instruction of BPSCL engineers.
- v. An updated record of spares requirement and their available stock will have to be maintained and also their consumption-pattern.
- vi. All the records must be systematic and computerized so that, it may be retrieved and presented any time on demand.

Note: *The above is only an indicative list and is not exhaustive. Any other equipment which is not covered in the above list but which is an integral part of the BPTG shall be in your scope.*

6. Exclusion:

- a) Overhauling / Major repair of drives.
- b) Expert services of equipment manufacturer on specialized job and emergency.
- c) Any testing of materials, arranging of scaffolding materials.
- d) All spares and consumables, like Lubricants, Grease, and Special Electrodes (like SS, Hand Facing Electrodes, etc.). However, industrial gases and general welding Electrodes shall be in your scope.
- e) Overhauling / re-winding of motors, transformers, etc.

SPECIAL TERMS & CONDITIONS:

1. The contractor will have to depute different types of manpower like Engineer, diploma Supervisor, Technician and unskilled worker etc. for both electrical and Instrumentation on daily basis.
2. Type of manpower mentioned above is to be deployed in adequate no. round the clock (including Sundays & Holidays) as per the job requirement.
3. **Indicative manpower deployment (excluding weekly off) :-**

SI No.	Type of Manpower	Electrical	C&I
1	Site-in-charge	01	
2	Diploma Supervisor	01	04
3	Non – Diploma Supervisor	04	02
4	Skilled Worker	07	03
5	Un-skilled Worker	04	02
	Total Manpower	28	

4. In case of emergency or breakdown, contractor should deploy additional manpower as deemed necessary as per instruction of Engineer – in – charge.
5. Contractor shall submit qualification and experience certificates in respect of the Engineers and Supervisors to be deployed on job, before start of job for verification purpose.

Quality of man power to be deployed by the contractor:

SI No.	Type of Manpower	Qualification & Experience required	Field of Experience
1.	Site Engineer /Engineer	BE with Electrical with 05 years experience for electrical part. BE (Electronics & Instrumentation) with minimum two years of experience for C&I part.	He should have prior experience of working in a DCS based Power Plant (consisting high pressure boilers and turbines). He should know statutory and safety of Electrical and C&I equipment of a Thermal Power Plant.
2.	Supervisors	Diploma (Electrical) with minimum 2 (two) year of experience Diploma (Electronics / Instrumentation) with minimum 2 (two) year of experience Non Diploma (ITI in electrical/ electronics / Instrumentation trade with 05 (five) years of experience)	He should know statutory and safety of Electrical and C&I equipment of a Thermal Power Plant. He should have prior experience of working in a DCS based Power Plant with pneumatic actuation systems (consisting high pressure boilers and turbines).
3.	Skilled Technician	ITI in electrical trade with 02 (two) years of experience OR Matriculation with 5(five) years of experience in Power Plant Electrical Equipments ITI in electronics trade with 02 (two) years of experience OR Matriculation with 5(five) years of experience in Power Plant Instrumentation	Experience in power plant electrical drives maintenance jobs. Electrical license holders will be preferable. Experience in power plant C&I maintenance /commissioning jobs
4.	Unskilled Worker	He should be young & energetic. He should be able to do hard work.	He should be to identify the C&I equipment of related areas. He should be able to do cleaning and housekeeping jobs sincerely.

6. Job competence of Working Personnel

1. Your engineer and supervisors for electrical system must have keen familiarity with the electrical equipments like generators, transformers (11KV/6.6KV, 6.6KV/415V), HT, LT & DC supply drives of different ratings and simultaneously in all various level of mentioned voltages such as 11KV, 6.6KV, 415V, 220V, 110 V AC, 220 V, 24 V DC system & checking of control circuit (415V AC, 220V AC & 220V DC, 24 V DC) along with fault finding and defect rectification. Your engineer and supervisors for C & I system must have experience in C&I equipment like DCS, PLC system, Vibration monitoring system, High pressure line equipment and transmitters, EDLI etc.
2. Your site engineer should possess prior experience of power plant instrumentation/ Electrical system.
3. Your supervisors should possess diploma degree. It will be preferred if they also possess enough experience of power plant instrumentation/Electrical system and equipment so that they can plan and do their jobs efficiently and effectively.
4. Your instrument /Electrical technicians should have enough job experience in the relevant area so that they are able to perform the job pertaining to maintenance and repair of Electrical and C&I equipment successfully and confidently. Their workmen-ship should be of high level.
7. Contractor will have to arrange necessary gate passes for its manpower.
8. All working tools & tackles, safety appliances like safety helmets, safety shoes, etc., shall be provided to their personnel by the contractor.
9. All consumables and field testing equipments like Multimeters, Field Calibrators, Tongue Testers etc. will have to be provided by the contractor.
10. All lifting tools & tackles, slings, etc., to be provided by the contractor, must have proper and valid test / safety certificates and the same shall be submitted to the engineer in charge before start of work.
11. The Site In-charge, Site Engineers & Supervisors, once deployed, shall not be changed / replaced / withdrawn from the site by the contractor during the currency of the contract. Under unavoidable circumstances, they can be replaced by some other suitable candidate with prior permission of the engineer in charge of the job.
12. Daily, weekly, monthly and other reports are to be maintained, generated and submitted by the contractor to the engineer in charge, as per requirement of the engineer in charge.
13. As the area of work is highly sensitive with respect to safety hazards, the contractor shall have to obtain proper work permits, shutdown clearance, CLC etc. and other instructions from the engineer in charge prior to start of work.
14. Contractor shall be fully responsible for any sort of unsafe activity of their personnel and contractor shall produce medical fitness certificate for their personnel prior to start of job.
15. Contractor must possess valid Electrical Contractor's License and shall produce for verification on demand by BPSCL.
16. Contractor shall be fully responsible for any sort of unsafe activity of their personnel.
17. The bidder shall start the job within 20 days from the date of issue of work order or as directed by BPSCL.
18. The successful bidder & the workmen employed by him will have to follow and observe all the safety & statutory rules, norms & requirements for electrical and C&I jobs.
19. The portion of the job planned to be completed within a particular time frame of a particular day should not be delayed beyond the stipulated time schedule.
20. No job should suffer due to shortage of manpower. Any lapse on the part of the contractor to provide adequate manpower will be viewed seriously and if it results in loss of production, deduction of payment will be done.

21. Industrial waste & all types of scraps generated by the job are to be removed by the contractor to the dumping ground as directed by the engineer-in-charge.
22. The supervision & execution of all jobs and the safety of workmen will solely be the responsibility of the contractor. BPSCL will not be responsible in any way in case of any violation of safety or statutory rules, or any illegal / unworthy incident, major or minor, caused by the workmen employed by the successful bidder.
23. The jobs which are not mentioned in area of equipments or scope of work but deemed necessary to carry out the AMC jobs successfully must be treated in the bidder's scope.

24. Guidelines regarding performance of work:

1. You will perform the subject work in accordance with the guidelines contained in the work order and the instructions of the Engineer-in-charge keeping in mind the latest technical specifications and IS codes of practice.
2. All incidental items of work not shown or specified but reasonably implied in the scope of work at no extra cost to BPSCL.
3. In case of any doubt or contradiction, the decision of the Engineer-in-charge will be final.

25. Firmness of Price

1. The rates and quoted price agreed by you shall be fixed for the entire duration of the contract.
2. You have to perform the job as per the availability of the shutdown and hence, there will be no consideration for idling of manpower.
3. The finally agreed rates will be inclusive of all costs to be incurred by you due to tools and tackles, labour, safety equipment, cleaning equipment, instruments, testing kits, calibrators and materials etc. to be supplied by you.

26. Safety Training and Safety Clearance: All unskilled and skilled workers, supervisors and engineers deployed by you must undergo safety training conducted by Safety Engineering Department of BPSCL and obtain certificates from there, without which they will not be allowed to work.

27. Supply and use of Safety Equipment: All the safety appliances and personal protection equipment are to be provided by contractor to their men at their own cost. Their deployed men must use the safety equipment as per the requirement without fail.

28. Preservation and Custody: Dismantled parts of an equipment will have to be kept in a clean container covered properly. Safety against theft and pilferage of all the equipment coming under the job-jurisdiction will be your responsibility.

29. Subletting of Contract

- a. If you plan to get the work executed exclusively by your own employees, they must possess the right professional qualification, experience and competence as described under the heads '**Job competence of working personnel**' and '**Qualification and experience of the manpower**'.
- b. But, if you plan to sublet the contract to one or more sub-contractors, you can do it very selectively only after taking the prior approval from the BPSCL authorities. Such approval will be given only when the working personnel of the sub-contractor strictly meet the set standard of qualification, work-experience and job-competence in the respective areas as described under the heads '**Job competence of working personnel**' and '**Qualification and experience of the manpower**'. Sub-contractors shall have to work under your technical & administrative supervision.
- c. However, subletting of contract for engineers will not be allowed.

30. Tools, Tackles, Safety equipment, Instruments & Consumables to be supplied by the Contractor

Following materials shall be supplied/ arranged by the contractor at his own cost:-

- a. General as well as personal safety wears appliances and equipment to be used by the employees of the contractor.
- b. All measuring and testing devices like fluke make multimeter, loop calibrator, megger (250 V, 500V, 1kV & 5kV) etc. needed to carry out given work pertaining to Electrical & C&I section.
- c. Electrician hand tools complete set (electrically insulated and tested).
- d. Welding machine, welding cables and accessories like welding helmets and heat insulated hand gloves etc.
- e. Fitter hand tools complete set.
- f. Grinding machine with grinding-wheels of different sizes.
- g. Drilling machine with full set of drill bits and whole saw cutting blades of different sizes.
- h. Soldering and brazing kits.
- i. Hacksaw frame with blades.
- j. Special tools like bearing-puller, gauge pointer puller, thread making tapes.
- k. General type consumables such as cotton waste, marking cloth, PVC tape, Teflon tape, emery paper, kerosene, petrol, rustoline, on-line contact cleaner.
- l. Cleaning and dust removing equipment like vacuum cleaner, air blowers, brushes (of different sizes), duster and other supporting accessories.
- m. Stationary items for systematic and presentable record-keeping and carrying out routine work on daily basis.

31. Inputs by BPSCL (Free of cost)

Following materials/ equipment shall be supplied by BPSCL free of cost as per requirement.

- a. EOT crane, Mobile crane, Truck and Fork lift.
- b. Compressed air, electricity and water.
- c. All types of spares needed to be replaced during the repair work of various Electrical and C&I equipments and systems.
- d. Power and control cables, lugs, glands and lug-crimping tools etc.
- e. Welding electrodes (special type).
- f. Grease, lubricants, nuts & bolts, Gaskets, O-ring.

32. Penalty Clause :

1. In case of short supply of manpower as indicated in manpower clause, Rs.300/-per day/ manpower will be charged as penalty in addition to minimum wages.
2. While executing the routine job per day, if work is delayed beyond the stipulated time, a penalty of Rs.500/- to Rs.1,000/- may be charged.
3. If shortage of tools, tackles, consumables and safety equipment's is detected, Rs. 100/- to Rs. 500/- will be charged as penalty.
4. If breakdown occurs due to either poor workmanship or some sort of negligence in doing a job properly, a penalty of Rs.1,000/- to Rs. 5,000/- will be charged.
5. If you are found violating the guidelines and polluting the environment, you may be charged anything between Rs.500/- to Rs.1000/- as penalty.
6. Your men must be competent enough to execute the work without damaging anything. If such damage takes place its replacement cost will be recovered from you.
7. In addition to above, if any other act of omission, negligence and lack of expertise is detected in the responsibility area, it will expose you to penalty charges as decided by the Engineer-in-charge.

33. Safety Clause: Without prejudice to the right conferred by the clause above for stoppage of work for violation of safety requirements, you shall be liable for penalties mentioned below:

- i. Upto Rs. 5000/-by DGM (safety)/Head of safety Engg. Department /Head of the Department where work is being done for 1st violation of safety norm, non use of PPEs(Personal Protective Equipments) 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 2nd Violation as mentioned in clause (i) above.
- iii. You shall be debarred for one year / deregistered from taking up further contractual work in BPSCL from the date of issue of debarring / deregistering order on 3rd 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 worker 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/- (1 Lakh) or more and debarred / deregistered from taking up further contractual work in BPSCL from the date of issue of debarring / deregistering the 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 have to re-imburse the applicable GST to BPSCL.

PRICE BID/ FORMAT**Special Instruction –**

1. *In the event of a L1 Bidder backing out prior to placement of order, in addition to forfeiture of EMD the bidder should be suspended for a period of six months from the date of issue of suspension order*
2. *Breakup of quoted unit LC (**Landed Cost**) **excluding GST** shall be submitted by the bidder. In case of refusal of L1 bidder to submit price break up, the bidder shall be suspended for a period of six months from the date of issue of suspension order.*
3. **Price Basis L1 bidder will be decided on lowest Landed Cost excluding GST Basis.**

Summary of Schedule of Qty :

Sl.No	Description	Duration	Total Amount (Rs.)
1.	Annual Maintenance (Preventive, Running & Breakdown) and Repair of Electrical and C&I Equipments belonging to BPTG Unit#9 , as per scope of work	01 year	
LANDED COST*			

Note: GST extra as applicable

Price Break-up of LANDED COST*

Sl.No.	Description of Work	Rate/Month (Rs.)	Amount (Rs.)
1.	Part-1: Annual Maintenance (<i>Preventive, Running & Breakdown</i>) and Repair of Electrical Equipments as per scope of work.		
2.	Part-2: Annual Maintenance (<i>Preventive, Running & Breakdown</i>) and Repair of C&I Equipments as per scope of work.		
LANDED COST			
Rupees only			

Signature with seal of tenderer

Notarized Affidavit

I.....son/daughter of Shri
Aged..... years resident of
.....PS.....District.....State.....do
hereby solemnly affirm that:

- (i) I am (designation/authority) in M/s
(name of the firm/company).
(ii) I confirm that all documents submitted against Enquiry No. dtd.
..... in support of eligibility criteria are genuine.
(iii) I undertake to produce all documents in original for verification as and when asked for
the same by BPSCL.

<p>Solemnly affirmed & declared before me by Deponent(s) who is/are identified by</p>	<p>The declaration made herein above are true to the best of our knowledge, information and belief</p> <p>signed atOn.....</p> <p>Deponent(s)</p>
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ANNEXURE - VII

CHECKLIST TO BE FILLED BY BIDDER EXCEPT REMARKS:- All documents which is require for fulfill 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 of Annexure-V

CHECKLIST 1- OF DOCUMENT SUBMITTED BY TENDERER

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

CHECKLIST-2 [PLEASE TICK (✓) THE ONE WHICH IS APPLICABLE AND CUT (X) ANOTHER]

1.	All document as per NIT and Checklist 1	Submitted () Not submitted ()
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DECLARATION OF TENDERER:-

I M/s hereby declare that to best of my knowledge, the information given in the checklist is correct and complete, if any mistake/ incorrect statement will be found then you have right to reject and cancel (my) tender/application without any notice. I also hereby declare that I have read the all terms and conditions of tender document carefully.

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 Commercial, General & other Terms & Conditions listed in the
NIT No. _____ dated _____
for the work of _____ (subject work) through Reverse Auction.

We confirm that we are in a position to do the job as per the scope of work given in NIT/RFQ. We agree to participate in the Reverse Auction and abide by the rules.

We nominate an executive, whose details are given below, to put the bids on our behalf.

The details of the person authorized 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 limited
 1st Floor, Tata Centre
 43, Jawaharlal Nehru Road
 Kolkata – 700 071

Fax: 033 – 2288 3279**Ref: Reverse Auction forfor Bokaro Power Supply Co. (P) Ltd. held on**

Reference above, we hereby confirm our Market wise last quoted prices in the Reverse Auction held on forfor Bokaro Power Supply Co. (P) Ltd., Bokaro Steel City.

Market No.	Last Quoted Price

We also confirm that we will submit item wise price break-up, within two working days from the date of Reverse Auction.

Signature :

Name :

Designation :

Date :

ENVIRONMENT, HEALTH AND SAFETY**EHS (Environment, Health and Safety) Clause for contracts where overall site is under BPSCL control****Bidder's Responsibilities**

The contractor 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 the bidder should be of internationally recognized standards. All tools and tackles bought by the contractor for use during the contract period should have proper and valid certification by competent authority.
8. All lifting equipments, tools and accessories provided by BPSCL should be maintained and returned back 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. The bidder must ensure that all machinery and equipments 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 equipments/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. Bidder must ensure optimum use of water with minimum wastage.
15. Contractor shall also ensure that the work area is kept clean, tidy, & free from debris. The Bidder is 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 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. The Bidder and their 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. The Bidder 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 Bidder Personnel. An investigation report assessing the root cause, corrective action, and preventative action shall be submitted by the Contractor to BPSCL within 24-hours of the incident's occurrence.