# **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/21-22/C-048/NIT-1013/1738 Dated 21/06/2021



# **TENDER DOCUMENT**

NAME OF WORK: Assistance in Electrical Testing, Supervision of Protection, Signaling and Conditioning Monitoring of Electrical Drives & Equipments.

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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/21-22/C-048/NIT-1013/1738

Date: 21/06/2021

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	Assistance in Electrical Testing, Supervision of Protection,	
	Signaling and Conditioning Monitoring of Electrical Drives &	
	Equipments.	
Estimated Cost	Rs. 25,87,571.00	
	(Rupees Twenty Five Lakh Eighty Seven Thousand Five Hundred Seventy	
	One Only) Excluding GST.	
Earnest Money	Nil	
	In lieu of EMD, the bidder shall submit either	
	Bid Security Declaration as per clause 1.a of General Terms & conditions.	
	OR	
	Document for Exemption as per clause 1.b of General Terms &	
	conditions.	
Period of Contract	One (01) Year from the date of commencement of work.	
Last Date & Time of submission of	of 20/07/2021 at 12:00 Har (IST)	
20/07/2021 at 12:00 Hrs. (IST)		
Bid opening Date & Time	20/07/2021 at 12:15 Hrs.	
Qualifying Requirements / Eligibility Criteria :		

#### Financial Capability:

- 1. Bidder should have Minimum average annual turnover (MAT) of **Rs. 7.76 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. 7.76 Lakhs

OR

b. Two similar completed works each costing not less than to **Rs.10.35 Lakhs** 

OR

c. One similar completed work costing not less than to **Rs. 18.11 Lakhs** 

**<u>Similar Work means</u>**: Work order (s) which includes work of :

Electrical Testing of Numeric Relays/Static Relays/Electromagnetic Relays.

OR

Assistance in Electrical Testing of Numeric Relays/Static Relays/Electromagnetic Relays.

OR

Electrical Testing of Generators (Generating voltage 11 KV or above)/ Transformers (6600/415 V and above).

**OR** Assistance in Electrical Testing of Generators (Generating voltage 11 KV or above)/ Transformers (6600/415 V and above).

- 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.
- 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. The bidder shall submit self certified copies of the following:-IT Return (*Latest*), Copy of EPF, ESI Certificate, valid (up to date) Electrical License for conducting contractual job of electrical nature or proof of application for renewal of the same, 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).
- 6. The bidder shall submit acceptance for finalization of rates through Reverse Auction as per Annexure.

#### General Terms & Conditions:

- 1. Earnest Money:
  - a) In lieu of EMD, Bidders shall have the option of submitting a Bid Securing Declaration accepting that it they withdraw / modify their Bids during the period of validity without assigning any valid reason for the same or refuse to submit Performance Security / Performance Guarantee as per the relevant Clause of this tender enquiry or refuse to accept the price quoted by them in Online Price Bid / Reversed Auction within the period of validity of the same or refuse to sign the Contract Agreement upon emerging as the successful bidder, they will be suspended for a period of one year from being eligible to submit bids against tender enquiries of BPSCL. A Format of Bid Securing Declaration is provided at Annexure X.
  - b) 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 Udyam Registration Certificate. SSI/NSIC certificate holders should also submit Udyam Registration Certificate. Further, unit claiming exemption is required to submit copy of Udyam registration certificate clearly indicating the item category for which they are registered.

**Note:** Offers not accompanied with Bid Security Declaration (*as per clause a*) or documents for exemption (*as per clause b*) will be treated as INVALID.

- 2. Consortium bids will not be considered unless the provision for consortium is specifically mentioned in Tender Document.
- 3. 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.
- 4. 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.

- <u>RATE FINALIZATION</u>: BPSCL reserves the right to finalize the rate through either of the following modes:

   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.

**Note:** 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.

- 6. **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: <u>purchase.bpscl@gmail.com</u>

#### 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 Bid securing Declaration/ Exemption document.
- 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 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 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 mazumdar.priyanka@mjunction.in

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 / Opening 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 <u>NOT</u> 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 to individual communication to the technocommercially 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. You are requested to visit site for actual assessment of the job before submitting of your offer.
- 2. You shall make yourself fully conversant with the actual site condition, nature of subject job(s) to be executed and terms and conditions of contract, cost of all the input materials and facilities, cost of labor, transport, incidentals, royalties etc. or any other taxes and duties before submitting the tender.
- 3. You will have to arrange necessary Gate Passes for your workmen.
- 4. You will have to deploy proper category of manpower for execution of the job.
- 5. You have to comply with all labor laws, ESI Act, EPF rules & AWA rules applicable in the Industry.
- 6. You will have to strictly adhere to the provision of various labor laws including Payment of Bonus Act 1965.
- 7. Payment Default Clause: You 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 payments 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.
- 8. You have to pay your workmen as per circular / notification published by the State Government in regard to rates of payment of VDA in vogue.
- 9. You will have to pay an additional amount of **Rs.4/-** to every worker engaged by you for the subject work over and above their daily minimum wages, as per BPSCL rules.
- 10. 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.
- 11. You shall execute the work in compliance with the provisions of contract and contract Technical Specification and/or design drawings furnished by BPSCL in terms of the contract and as per codes and standards specified therein, wherever applicable.
- 12. Supervision of the work is your responsibility. Inspection of executed work will be done by Site Engineer/BPSCL.
- 13. If situation demands, you will have to execute the work round the clock.
- 14. After completion of work, Engineer-in-charge or his representative will review the work(s), you will have to rectify any defect, if found, at no extra cost.
- 15. You shall remove all debris, surplus materials, etc., if any, and dump the same at place as directed by the Engineerin-charge.
- 16. All the applicable taxes will be deducted from your bills.
- 17. During contract period there will be no consideration for idle & escalation charges.
- 18. You will be fully responsible for any sort of unsafe activity of your workmen and all your workmen should be trained for operational safety and to avoid fire hazards of Power Plant and must have proper safety certificates issued by BPSCL before start of work.
- 19. You will have to follow and observe the safety & statutory requirements and comply with all safety rules & regulations applicable in the plant area as per Booklet of Safety rules for BPSCL contractors. If you are not having that booklet, same may be collected from the safety department with a request letter.
- 20. For working at height, you shall produce medical fitness certificate for your workmen. Height passes to be obtained from safety department, if required.
- 21. All the working tools & tackles, men, material etc. and safety appliances like personal protection equipment are to be provided to your workmen by you at your own cost. All safety appliances of reputed make are to be provided by you to your workmen in presence of Safety Officer of BPSCL. The list and make of safety appliances may be obtained from safety office.
- 22. In case any documents/information submitted by you 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 dealing, criminal proceedings etc.) as deemed fit may be initiated by BPSCL against you.

#### 23. GST RELATED CLAUSES:

- a. You should quote GST as extra. If not mentioned in offer it will be considered as extra.
- b. You have to pass on the tax benefit/savings, if any, on account of output taxes to BPSCL.

- c. 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.
- d. In case the Input Tax Credit of GST is denied or demand is recovered from BPSCL on account of any noncompliance 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 responsibility to discharge appropriate taxes, as applicable.
- e. You have to maintain high GST compliance rating track record at any given point of time.
- 24. **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 www.bpscl.com.
- 25. **RISK AND COST:** Failure on your part to start the work within reasonable time/ the progress of the job is poor/ for 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.
- 26. SAFETY CLAUSE: You shall be liable for penalties mentioned below for violation of safety norms:
  - i. Up to Rs.5000/-by Head of safety Engineering Department /Head of the Department where work is being done for 1st violation of safety norm, 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 up to 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 up to 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 order in case any Fatal accident occurs due to violations as mentioned in Clause (i) and (iv) above.
- 27. **FORCE MAJEURE:** You shall not be considered in default if delay occurs due to causes 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 LD at the option of BPSCL.

#### 28. Work accident

- a. You will be fully responsible for the safety of the workers employed by you. In the event of any work-accident, major or minor, 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 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 own 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.

#### 29. You shall also 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
- vi) Order book

### Scope of Work:

To assist the electrical testing department in all electrical testing activities of all the electrical drives & equipments (electrics) of the entire Power Plant of BPSCL. The electrical testing includes measurement of electrical parameters. Also, the contractor will have to assist in periodic checking, supervising and maintaining the healthiness and trouble-free working of all the protection & signaling circuits of all electrics of the entire Power Plant.

Contractor has to engage sufficient work force to carry out the job. This work force will have to assist in the testing & related jobs either in the Electrical Testing Laboratory, or at the site, as directed by the Engineer In charge of BPSCL. Normal working of the work force will be for eight (08) hours (general shift) but in cases of breakdown repairs & commissioning jobs, etc they will have to report at odd hours and work round the clock, if so demanded by the plant conditions.

The activities are detailed below:-

#### A) Providing assistance in conducting Electrical Testing:

Contractor shall assist in conducting following tests for different types of electrics:

#### i) Motors (HT & LT):

- a. Measurement of insulation resistances (IR & Polarization Index) (PI) values by 2.5 KV Megger and / or 5KV/10KV Power Megger.
- b. Measurement of winding resistances / inductances value for each phase to phase combination.
- c. Polarity test of Stator Winding.
- d. High Voltage test as per standard norms.
- e. Control test at normal voltage.
- f. Low Voltage trial.
- g. Measurement of RPM.
- h. Checking of protection & signaling details. Checking by simulation, if needed. Rectification of defects, if any by proper wiring and / or repairing defective relays, timers, meters, signaling lamps etc.
- i. Commissioning tests after Capital Repair.
- j. Tan Delta Test for dielectric dissipation factor.

#### ii) Generators

- a. Measurement of IR, Absorption Co-efficient & PI of stator / rotor of generator & exciter by 500 V / 1KV/2.5KV/5KV/10KV Megger.
- b. Measurement of winding resistance / inductance of stator / rotor of generator.
- c. Polarity test of stator winding.
- d. High Voltage test (AC / DC) of stator / rotor.
- e. Checking of protection & signaling circuits: Thorough checking of all the protection & signaling of the generator, including its excitation system at regular interval or at shutdown, rectification of defects, if any, by proper wiring, minor repairs, replacements of parts etc.
- f. Short circuits characteristic & open circuit characteristic of the generator.
- g. Tests & checks of Thyrister based or magnetic amplifier based excitation system or any modified version of such a system, as per standard norms & manufacturer's instructions.
- h. Commissioning test of generator & excitation system / self exciter including regular and special test.

#### iii) Circuit Breakers (HT&LT)

- a. Measurement of contact resistances & contact travels, wherever applicable, of the main power contacts, or arching contacts.
- b. Measurement of closing time & opening time.
- c. Checking of simultaneous closing of poles.
- d. High Voltage test. Measurement of IR before and after High Voltage test.
- e. Checking of operation in test position.
- f. Checking of protection & signaling circuits including various interlocks, auto change over schemes, indications etc. rectification of defects, if any by proper wiring minor repairs, replacement of parts etc
- g. Measurement of IR & Operating voltage test of surge diverters.

#### iv) Transformers

- a. Measurement of IR & PI of HT/LT windings.
- b. Measurement of winding resistances at all taps at HT & LT windings.
- c. Measurement of no load magnetizing current, magnetic balance (core).
- d. Ratio test at all tap positions.
- e. Back charging at secondary voltage.
- f. Vector groups test.
- g. Measurement of Tan Delta for Transformers of 10 MVA capacity & above.
- h. Protection / Signaling checking.
- i. Recovery voltage test.
- j. Frequently voltage test.

#### v) Isolators

- a. Measurement of contact resistance.
- b. HV test.
- c. Measurement of IR.
- d. Interlock checking.

#### vi) Current Transformers

- a. VI characteristics.
- b. Ratio test at rated primary current.
- c. Polarity
- d. Knee point voltage.
- e. HV test as per norms.
- f. Measurement of IR.

#### vii) Potential Transformer

- a. VI Characteristic.
- b. Ratio test at suitable voltage.
- c. Polarity.
- d. HV test, through back charging at rated secondary voltage, if so needed.
- e. Measurement of IR.

#### viii) Lightening Arrester

- a. DC HV Test & measuring of leakage current.
- b. AC HV Test & measuring of Flashover voltage.
- c. Measurement of IR before & after HV test.

#### ix) Bus Bars & Bus Ducts

- a. Measurement of IR.
- b. HV Test.
- c. Checking of protection system.

#### x) Cables

- a. Continuity
- b. Measurement of IR / PI
- c. DC HV Test
- d. Fault location by VI method / Fault locator.

#### xi) Meters

- a. Testing & calibration
- b. Minor repairs.

#### xii) Relays

- a. Testing
- b. Co-ordination
- c. Minor repairs

#### xiii) DC Motors / Generators

- a. Measurement of field resistance, inductance.
- b. Field joint drop test.
- c. Field polarity test.
- d. Armature drop test.
- e. Residual Magnetism check & build up (for Self Excited Generators)
- f. Measurement of RPM at various conditions.

#### xiv) Earthing

- a. Measurement of Earth resistance of Earth Pits & Grid.
- b. Measurement of resistance in the Earth path for equipment Earthing.

#### xv) Miscellaneous

- a. On line temperature measurement of power joints by remote sensors.
- b. Measurement of IR & operating voltage test of surge diverters.
- c. Measurement of IR for reactors & HV Test.
- d. Measurement of IR for insulators (HT & LT).
- e. Checking of Motor generators sets.
- f. Testing of inverters.
- g. HV test of Instrument, Tapes, Appliances, etc.
- h. Any other test of any other drive / equipments which may be necessary.

#### B) To assist in checking of Protection & Signaling Circuits.

- a. Providing assistance in thorough checking of Protection circuits of all the drives and electrical equipments in detail, with special attention to various electrical interlocking, tripping, supply auto change over schemes etc. Rectification of defects, if any, by correcting problems of wiring, replacements of defective spare parts, minor repairs etc.
- b. Providing assistance in thorough checking of signaling circuits of all the drives & electrical equipments in detail, with special attention to flag operation, indications, annunciations etc. Rectification of defects, if any, by correcting problems of wiring, replacement of defective spare parts, minor repairs etc.

The following electrical systems are covered:

#### i) 138 KV Lines & Buses

- a. Checking of relays, other protective devices & protection system as whole.
- b. Checking of signaling/ annunciation & signaling system as whole.
- c. Rectifying defects, if any.
- d. Ensuring trouble free & reliable operation of protection / signaling system as whole.
- e. Submission of report.

#### ii) 11.9 KV Lines & Buses / Sections

- a. Checking of relays, other protective devices & protection system as whole.
- b. Checking of signaling / annunciation & signaling system as whole.
- c. Rectifying defects, if any.
- d. Ensuring trouble- free & reliable operation of protection / signaling systems whole.
- e. Submission of report.

#### iii) 6.9 KV Feeders & Bus Sections

- a. Checking of relays, other protective devices & protection system as whole.
- b. Checking of signaling / annunciation & signaling system as whole.
- c. Rectifying defects, if any.
- d. Ensuring trouble- free & reliable operation of protection / signaling systems whole.
- e. Submission of report.

#### iv) LT Feeders & Bus Sections

- a. Checking of relays, other protective devices & protection system as whole.
- b. Checking of signaling / annunciation & signaling system as whole.
- c. Rectifying defects, if any.
- d. Ensuring trouble- free & reliable operation of protection / signaling systems whole.
- e. Submission of report.

#### v) DC Systems

- a. Location & removal of Earth fault.
- b. Ensuring all round healthiness of the protection & signaling circuits of the system, and related trouble shooting.
- c. Ensuring healthiness of the protection & signaling circuits of the MG- sets, inverters, chargers, etc and related trouble shooting.

#### vi) All Electrical Drives & Equipments

- a. Checking of relays, other protective devices & protection system as whole.
- b. Checking of signaling / annunciation & signaling system as whole.
- c. Rectifying defects, if any.
- d. Ensuring trouble- free & reliable operation of protection / signaling system as a whole.
- e. Submission of report.

#### C) Condition Motoring

### i) Conditions Motoring of Motors in-site conditions: OFF-LINE

- a. Tan Delta & Capacitance Analysis.
- b. Dielectric Discharge Analysis.
- c. Motor Circuit Analysis.

#### ii) Conditions Monitoring of Transformers

#### Visual Inspection

- a. Oil leakage from various joints.
- b. Conditions of breather, pumps, fans, temperature indicators, pressure release valves etc.

#### **Electrical Tests:**

As detailed in Transformer test given above

- a. IR & PI values measurements with 2.5/5KV motorized megger.
- b. Low Load Magnetizing Current.
- c. Core Balance
- d. Ratio Test on all taps.
- e. Winding Resistance.
- f. Capacitance & Tan Delta of the Transformer Winding / Bushing.
- g. Recovery Voltage Test.
- h. Frequency Voltage Test
- i. Step Voltage measurement.

#### iii) Condition Monitoring of Generators

Standard techniques of conditions monitoring like vibration analysis, etc to be taken up regularly long with regular physical inspection and other tests as already mentioned above.

#### D) Providing assistance in attending Breakdown, if any

Testing the health of various electrical equipments as per norms, (at odd ours and round the clock) in case of any breakdown occurring at the Power Plant, so as to identify the faulty electrics, normalize the unaffected electrical

system as soon as possible & ascertain the extent of maintenance to be done on the equipments suffering breakdown. Testing / checking at the time of normalization of the faulty electrics after maintenance to assure their healthiness, again an odd hours and round the clock, if it is needed.

#### E) Providing assistance in Commissioning, if any

Testing & checking (round the clock ,at off hours, if it is so needed) at the time of commissioning of an important drive or equipment after its installation/ maintenance/ repair etc

#### **F) Report of Test Results**

- a. All the test results are to be regularly logged & systematically recorded in a neat tabular form along with relevant remarks.
- b. All the various checks of inspection & protection / signaling circuits are to be regularly recorded for each electrical drive & equipments tested.

#### SPECIAL TERMS & CONDITIONS:

- 1. Minimum indicative manpower to be deployed on daily basis, except weekly rest days (i.e for 313 days) :
  - Supervisor (Non Diploma) 01
  - Skilled Workers 05
  - Un-Skilled Workers 05
- 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 for VDA reimbursement shall be Bid Opening Date or RA Date or Revised Offer Date (in case of negotiated prices), whichever is later.
- 3. Contractor have to provide all the resources like men, materials like working tools and tackles, safety helmets, safety boots, hand gloves, and other safety appliances of general & special type.
- 4. BPSCL will provide spares required for the job.
- 5. 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.
- 6. The work should be done strictly as per the guidance of and as per the demand & satisfaction of the engineer incharge of BPSCL for the job. The work completion will also be certified by him. In case of any dispute regarding work, the decision of BPSCL will be final & binding.

#### 7. 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 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.

#### 8. Penalty Clause :

- a. Any case of non-removal of scrap generated after completion of job will be penalized @ Rs. 1000/- each time of such an occurrence.
- b. For supplying manpower less than the minimum indicative manpower as mentioned above, 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.

#### 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. <u>Price Basis: L1 bidder will be decided on mathematically lowest percentage.</u>

Sl. No.	Description of Job	Duration	Total Estimated Cost (excluding GST)	To be quoted by Bidder
1.	Assistance in Electrical Testing, Supervision of Protection, Signaling and Conditioning Monitoring of Electrical Drives & Equipments. (As per Scope of work)	12 Months	Rs. 25,87,571.00 (Rupees Twenty Five Lakh Eighty Seven Thousand Five Hundred Seventy One Only) Excluding GST.	Online Price Bid (% above / % below with respect to Total Estimated Cost excluding GST) through URL : http://www.buyjunctio n.in

#### Note:

- 1. Goods & Service Tax: EXTRA as applicable
- 2. Please provide following details :

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

Signature with seal of tenderer

### **ANNEXURE - VI**

# **Self Declaration**

	Ison/daughter of ShriAged
	resident ofStatedo hereby declare that:
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/salongwith the
	Bid Document submitted against Tender No
	dated
	for

- 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:.....

#### ANNEXURE - VII

**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.

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 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		

#### CHECKLIST OF DOCUMENT SUBMITTED BY TENDERER

Signature of tenderer with seal

#### **ANNEXURE-VIII**

#### (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)	(Contractor Name) having	
PAN	& registered office at		(Address)	
agree to all the Comme	rcial, General & other Terms & Condition	ons listed in the		
NIT No		dated		
for the work of				
(Name of work) throug	h 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	

#### 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 1<sup>st</sup> Floor, Tata Centre 43, Jawaharlal Nehru Road Kolkata – 700 071

Fax: 033 - 2288 3279

#### Ref: Reverse Auction for ......for 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 ...... for ...... for Bokaro Power Supply Co. (P) Ltd., Bokaro Steel City.

Market No.	Last Quoted Percentage
	<i>To be submitted by the L-1 Bidder only after finalization of RA</i>

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

## Format for Bid Securing Declaration (In lieu of EMD)

Date: \_\_\_\_\_

Tender Enquiry no.:

То

The GM In-charge (Material Management) Bokaro Power Supply Company (P) Ltd. Hall No. – M 01 Old Administrative Building ISPAT Bhawan, Bokaro Steel City

I/We\*, the undersigned, declare that:

I/We\* understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration in lieu of Earnest Money Deposit.

I/We\* understand that if I/We\* withdraw or modify my / our\* Bids during the period of validity, or if I am /We are\* awarded the Contract and I/We\* fail to honour my /our\* offer by way of either withdrawing my / our\* bid within the bid validity period without assigning any valid reason for the same or refusing to submit Performance Security / Performance Guarantee as per relevant Clause of the tender enquiry or refusing to accept the price quoted by me / us\* in Online Price Bid or Reverse Auction within the period of validity of the same or refusing to submit Bids for all future Contracts.

I/We\* understand that this Bid Securing Declaration shall cease to be valid if I am / We are\* not the successful Bidder and I am / We are\* not awarded the Order against the tender enquiry.

Signed	_ in the capacity of
Name:	
Duly authorized to sign the Bid for and on behalf of:	
Dated on day of	

Corporate Seal (where applicable)

[Note: In case of a Joint Venture, the Bid Securing Declaration must be in the name of all partners to the Joint Venture that submits the Bid.]

\* Please delete as appropriate

#### **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.