TENUGHAT THERMAL POWER STATION
TENUGHAT VIDYUT NIGAM LIMITED
(A GOVT. OF JHARKHAND UNDERTAKING)
PO:T.T.P.S, LALPANIA
DIST: BOKARO,JHARKHAND-829149 Website: www.tvnlonline.com

<table>
<thead>
<tr>
<th>GSTIN</th>
<th>PAN</th>
<th>TAN</th>
<th>CIN</th>
</tr>
</thead>
<tbody>
<tr>
<td>20AACCT1197L1ZC</td>
<td>AACCT1197L</td>
<td>RCHT00177C</td>
<td>U40101JH1987SGC01153</td>
</tr>
</tbody>
</table>

NIT No. :03/TTPS/CONT-I/500000828/CV/2018-19  Due on :05/10/2018

TENDER DOCUMENT

NAME OF WORK: Stability Test of Power House (2x210MW) Plant building & Structures as per Factory act & rules (Section 2(A) & 3(A) of Factory act 1948) by the statutory authority authorized by the Chief Inspector of Factories, Govt. of Jharkhand at TTPS, Lalpania.

NOTICE INVITING TENDER

For and on behalf of TENUGHAT VIDYUT NIGAM LIMITED (TVNL), tenders in single part (Technical & Commercial Bid, Price Bid) (A- Requisite cost of Tender Document & Earnest Money of specific value to be submitted at TTPS, Account, B-Technical & Commercial & C-Price Bid) are invited online through SAP-SRM, TVNL website: webdispatcher.tvnl.in/srmprd from experienced, reputed and financially sound firms, for the following work of TENUGHAT THERMAL POWER STATION, Lalpania:-

<table>
<thead>
<tr>
<th>Description of Work</th>
<th>Stability Test of Power House (2x210MW) Plant building &amp; Structures as per Section 2(A) &amp; 3(A) of Factory act &amp; rules of 1948) by the statutory authority, authorized by the Chief Inspector of Factories, Govt. of Jharkhand at TTPS, Lalpania</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Amount (INR)</td>
<td>Rs. 14,07,850.00/(Rupees Fourteen Lac Seven Thousand Eight Hundred Fifty ) only Plus GST extra as applicable</td>
</tr>
<tr>
<td>Earnest Money (INR)</td>
<td>Rs. 28,200.00 (Rupees Twenty-Eight Thousand only)</td>
</tr>
<tr>
<td>Cost of Tender Documents (Non Refundable)</td>
<td>Rs. 2,000.00(Rupees Two Thousand only)</td>
</tr>
<tr>
<td>Downloading of Tender Paper</td>
<td>From 10.09.2018 <a href="http://www.tvnl.in">www.tvnl.in</a></td>
</tr>
<tr>
<td>Last Date &amp; Time for submission of payment of Tender Fee &amp; EMD</td>
<td>25.09.2018/17:00</td>
</tr>
<tr>
<td>Last Date &amp; Time for submission of Part-I &amp; II of Tender</td>
<td>05.10.2018/17:00</td>
</tr>
<tr>
<td>Date &amp; Time of Opening of Tender</td>
<td>05.10.2018/17:30</td>
</tr>
<tr>
<td>Place of submission of bid documents (Hard copy for part-I)</td>
<td>ESE (Contract), Administrative Building, TTPS, Lalpania,Bokaro</td>
</tr>
</tbody>
</table>

General Terms & Conditions:

i) Any type of tempering/alteration with the tender documents shall not be allowed.

ii) The tender document is to be downloaded from the TVNL website www.tvnl.in

iii) The tender document is to be filled at TVNL website: https://webdispatcher.tvnl.in/srmprd

iv) After advertisement of NIT, intended bidder, First submit Tender Fee & EMD to AO, TTPS, Lalpania, Second communicate with TTPS contact person Mob No-9031078833/email:Rajeev.kumar@tvnl.in/rajeevkumartvnl@gmail.com with their Firm Name, address, email, Mob no to make partner ID in SAP-SRM. Third, ID & password will be sent to bidders email and bidder has to register at TVNL website: https://webdispatcher.tvnl.in/srmprd with given ID & password and communicate to contact person to allow for opening of the Bid at TVNL website to fill/submit Part-I & Part-II of bid/NIT by bidder.

v) Bidder has to bid on TVNL website: https://webdispatcher.tvnl.in/srmprd only.

vi) Tender Fee & Earnest Money deposit (EMD) in shape of Demand Drafts/ Pay order/ Banker’s cheque drawn on any Indian Nationalized/ Schedule commercial bank drawn in favour of “TENUGHAT THERMAL POWER STATION” payable at Lalpania. Tender shall not be considered without Tender Fee & EMD.
vii) Tender shall be submitted in prescribed Performa on or before the due date & time through site “webdispatcher.tvnl.in/srmprd” (as per given ID & password).

viii) If any bidder quotes unworkable rates i.e. if the quoted price is very less (very less % (mostly@10%) will be decided by Tender committee) than the estimated price and is considered for placement of order, the bidder 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 equivalent to difference of his quoted price and estimated cost. Earnest money deposit of the bidder who refuses to give Performance Guarantee Bond will be forfeited and they will not be considered in re-tendering if order/contract is not finalized from the present tender. In any case of non execution of contract, the above submitted PG will also be forfeited.

ix) Tender shall be opened as per RFx published by simultaneous login by opening committee. In case the date of opening of tender happens to be holiday, the tender shall be opened on the next working day.

x) Any Corrigendum/Addendum/Extension of bid opening date and cancellation of NIT will be published through our website www.tvnl.in only and not through newspaper. The bidders are requested to visit our website regularly for any addendum/corrigendum/extension till opening of NIT.

**Qualifying Requirements (QR)**

1. The Bidder should have the following Qualifying Requirements (QR):

   **Technical QR:**
   i. The bidders should have working experience in Stability Test of Plant building & Structures as per Section 2(A) & 3(A) of Factory act & rules of 1948) of any Govt./ Semi Govt. /CPSU/SPSU/SEB’s

   **Financial QR:**
   ii. Annual turnover (i.e. average of last three completed financial years preceding the last date of submission of Bid) at least 1.5 times of the estimated value per year (Rs. 21,11,775.00).

   iii. The bidder should submit authenticated copies/Audited Annual Financial reports, Balance sheet & Trading, Profit & Loss Accounts, for last (preceding) 03(three) consecutive FY in support of their meeting above stipulated financial requirements. In case where audited results for the last financial year are not available, certification of financial statements from a practicing Chartered Accountant shall also be considered acceptable.

   iv. The intending bidder should have successfully completed at least one similar job in a period of last five years immediately preceding the deadline for submission of Bid and such work(s) should be in successful operation for a period of at least two years as on the bid deadline, wherever applicable. The successful completed similar work shall be either of the following:-
   (1) Three similar nature of completed works of each value not less than 40% of the estimated value (<& =Rs. 5,63,140.00)
   OR
   (2) Two similar nature of completed works of each value not less than 50% of the estimated value (<& =Rs. 7,03,925.00)
   OR
   (3) One similar nature of completed works having value not less than 80% of the estimated value. (<& =Rs. 11,26,280.00)

   v. Bidder may submit Bank Solvency Certificate of any Indian Nationalized /Scheduled Commercial Bank in support of their financial credibility/capacity for at least 40% of the estimated cost (Rs. 5,63,140.00).

   vi. Similar work means the bidder must have working experience of Stability Test of Plant building & Structures as per Section 2(A) & 3(A) of Factory act & rules of 1948).

   vii. The tenderer must have valid GSTIN, ownership / partnership deed.

For and on behalf of
Tenughat Thermal Power Station, Lalpania
Sd/-
(S K Singh)
ESE (Contracts-I)
## TENUGHAT THERMAL POWER STATION
**TENUGHAT VIDYUT NIGAM LIMITED**
( A GOVT. OF JHARKHAND UNDERTAKING)
PO:T.T.P.S. LALPANIA

**BILL OF QUANTITY**

**PART- I (TECHNICAL & COMMERCIAL)**

**NIT No.: 03/TPPS/CONT-I/500000828/CV/2018-19**

**NAME OF WORK:** Stability Test of Power House (2x210MW) Plant building & Structures as per Factory act & rules (Section 2(A) & 3(A) of Factory act 1948) by the statutory authority authorized by the Chief Inspector of Factories, Govt. of Jharkhand at TTPS, Lalpania.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Particulars</th>
<th>Details to be furnished by the Bidder (Enclose separate sheets if required)</th>
<th>Flag No.</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Name of the Bidder (Enclose Letter Head of firm)</td>
<td></td>
<td>I</td>
<td></td>
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<tr>
<td>2</td>
<td>Address of Bidder with Telephone, Fax, e-mail</td>
<td></td>
<td>II</td>
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<tr>
<td>3</td>
<td>Name of the Proprietor/ Head of the Firm and its key personnel with organizational chart giving details of qualification and experience etc.</td>
<td></td>
<td>III</td>
<td></td>
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<tr>
<td>4</td>
<td>Details of maintenance set up with resources like permanent employees (with designation &amp; strength), tools &amp; tackle and other equipment with capacities</td>
<td></td>
<td>IV</td>
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<tr>
<td>5</td>
<td>Name and Qualification of the site-in-charge</td>
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<td>V</td>
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<tr>
<td>6</td>
<td>Work Experience of Bidder (Attach copy of work order of similar work and its successful completion certificate during last five years as per QR/Si. No. 1/iv)</td>
<td>Work Order No............ Dated............</td>
<td>VI</td>
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<td></td>
<td></td>
<td>Completion Certificate Dated..........</td>
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<td>Work Order No .......... Dated............</td>
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<td>Completion Certificate Dated..........</td>
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<td>Work Order No ............ Dated............</td>
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<td>Completion Certificate Dated..........</td>
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<tr>
<td>7</td>
<td>Financial Credibility/ Capacity (Attach Bank Solvency Certificate)</td>
<td></td>
<td>VII</td>
<td></td>
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<tr>
<td>8</td>
<td>Average annual turnover of bidder during the last 03 financial years (Attach audited Balance Sheet &amp; P/L Account for last three years ending 31st March, 2018)</td>
<td>Average annual turnover of bidder during the last 03 (three) financial years Rs.....................Annual Turnover</td>
<td>VIII</td>
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<td>FY- 2015-16 Rs........</td>
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<td>FY- 2016-17 Rs........</td>
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<td>FY-2017-18 Rs..........</td>
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<td>9</td>
<td>Name &amp; Designation of Authorized Signatory (Attach Power of Attorney if applicable)</td>
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<td>IX</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./ Public Sector) (Attach proof)</td>
<td></td>
<td>X</td>
<td></td>
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<tr>
<td>11</td>
<td>Permanent Account Number (PAN)(Attach proof)</td>
<td></td>
<td>XI</td>
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<td>12</td>
<td>GSTIN</td>
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<td>XII</td>
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<td>13</td>
<td>GSTR3B (Latest/last month may be submitted)</td>
<td></td>
<td>XIII</td>
<td></td>
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<tr>
<td>14</td>
<td>Labour License No. (Attach copy of registration)</td>
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<td>XIV</td>
<td></td>
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<tr>
<td>15</td>
<td>IT Return (last Yr.)</td>
<td></td>
<td>XV</td>
<td></td>
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<tr>
<td>16</td>
<td>Character Certificate of the Head of the Firm (format of self-declaration attached)</td>
<td></td>
<td>XVI</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Particulars of Earnest Money (DD No. /BG No. &amp; Date)</td>
<td></td>
<td>XVII</td>
<td></td>
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<tr>
<td>No.</td>
<td>Description</td>
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<tr>
<td>19</td>
<td>Certificate of competency issued in pursuance to Rule 2(A) &amp; 3(A) of Factory act 1948 of the Factories act 1948 authorized by the Chief Inspector of Factories, Govt. of Jharkhand with validity period of Bokaro District.</td>
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<tr>
<td>20</td>
<td>Complete schedule to be attached duly signed by tenderer.</td>
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<tr>
<td>21</td>
<td>Indemnity Bond/ affidavit regarding authenticity of credentials submitted.</td>
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<tr>
<td>22</td>
<td>Net worth requirement are kept equal to 30% (Rs. 4,22,355/-) of the total estimated value of the Work. (Attach proof)</td>
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<tr>
<td>23</td>
<td>IT Return (last Yr.)</td>
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TENUGHAT VIDYUT NIGAM LIMITED
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BILL OF QUANTITY

NIT No.: 03/TTPS/CONT-I/500000828/CV/2018-19

NAME OF WORK: Stability Test of Power House (2x210MW) Plant building & Structures as per Factory act & rules (Section 2(A) & 3(A) of Factory act 1948) by the statutory authority authorized by the Chief Inspector of Factories, Govt. of Jharkhand at TTPS, Lalpania.

GENERAL TERMS & CONDITIONS

1. Validity of Offers: The bid submitted by bidders should remain valid for a Period of 180 days from the date of opening of Tender unless otherwise specified.

2. Time of submission of the Tender: Special attention of the bidder is invited about the online submission on TVNL website: https://webdispatcher.tvnl.in/srmprd with provided ID & password before the specified date & time. Bidders are requested to submit hard copy of Bid in the office within 48 hr. of submission deadline.

3. Inspection of Site: Before quoting the rate, bidders are advised to visit the work site and get satisfied scope of work for which rates are to be quoted. Engineer-in-charge may be consulted for any clarification regarding scope of work and terms of tender. Bidder should go through the terms and conditions and technical specification of work carefully and sign in all pages of the tender documents. No TA will be given for visit.

4. Instruction to Bidder:
   a. Bidders are advised to submit their bids strictly based on the scope of work, terms and conditions contained in the bid document and subsequent revisions/amendments, if any. The bid should be submitted along with covering letter.
   b. The bid shall be prepared and submitted by typing or printing in English on white paper in consecutively numbered pages duly signed by the authorized signatory with company seal affixed on each page. Any part of the bid, which is not specifically signed by the authorized signatory and not affixed with company seal, may not be considered for the purpose of evaluation.
   c. Copy of bid document, amendments/revisions to bid document if any, shall be signed and submitted along with the bid.
   d. Complete bid document including all enclosures should preferably be submitted in hard bond or spiral binding and all pages should be numbered and must be signed by the authorized signatory with seal of the company & flagged as given above.
   e. The Bid should be filled at TVNL website: webdispatcher.tvnl.in/srmprd with provided ID & password.
   f. Complete tender or tenders not submitted as per requirement as indicated in the NIT are likely to be rejected.
   g. Bidders shall submit their offer strictly as per terms and conditions of the tender document without any deviation. If at any time any of the documents/information submitted by the bidder is found to be incorrect, false or untruthful, the bid and/or the resultant order may be summarily rejected/ cancelled at the risk of the bidder.
   h. Failure to furnish all information and documentary evidence as stipulated in the bid document or submission of an offer that is not substantially responsive to the bid document in all respects shall be summarily rejected.

5. Earnest Money Deposit (EMD): Offers shall be accompanied with Earnest Money Deposit (EMD) of requisite value as specified may be submitted AO, TTPS and confirm to ESE(Contract-I). EMD may be furnished in form of Demand Draft/ Bank Guarantee from any Indian Nationalized Bank/Schedule Commercial Bank in favour of “TENUGHAT THERMAL POWER STATION” payable at Lalpania. The Bank Guarantee should remain valid for 12 months. The earnest money will be forfeited on revocation of tender before expiry of validity of the tender or on refusal to enter into the contract agreement after the award is made by TTPS to the bidder. EMD is not required for NSIC/SSI registered

6. Security Deposit: The successful bidder shall have to deposit total security @ 10% of order value in which initial security money @5% of the order value (including earnest money which will be retained as security money) before executing the agreement. Initial security money will be accepted as Bank Draft/ Bank Guarantee in the prescribed format not adjustable against running bill. Balance 5% of security money will be deducted from R/A bills. The security money will be released after 6(six) months from actual completion of work and closure of contract.

7. Submission of Bill:- Final Bill/ RA Bill in triplicate shall be submitted by you to the Engineer-in-Charge of work for verification & onward transmission to the account wing for pass & payment.

8. Paying Authority: The Accounts Officer, TTPS, Lalpania will be the Paying Authority.

9. Engineer-in-Charge: Concerned Executive Engineer (Civil) will be the Engineer-in-Charge for this work. The works are to be executed as per direction of Engineer-in-Charge. Anything not mentioned here in shall be decided by the Engineer-in-Charge of the work and shall be binding on the supplier/contractor.

10. Completion period: Time is the essence of the contract and tenderers are required to complete the work for conducting tests and submission of reports within 3 (three) months, which will be reckoned from the 10th day of issue of award...
In the event of any 5 days of issue of order in the event of placement of order on them. The agreement will have to be signed by digital signatures of the contractor. The contractor failing to enter into the agreement before agreement failing which order will be cancelled. Contractor will be liable to produce all original paper and documents for verification before agreement failing which order will be cancelled. Contractor will be liable to mobilize the resources, manpower and enter into agreement and starting the work within 15 days of the LOI/Work Order. The contractor will be liable to complete the entire work within 60 days from the date of LOI/Work Order in the event of any dispute between the Contractor and TVNL shall be settled in the civil court, at Berimo, at Tenughat, Jharkhand only. The contractor failing to execute the work up to entire satisfaction of Engineer-in-Charge as per terms & conditions of tender, then the contract agreement can be terminated after one month prior notice and security money shall be forfeited.

11. Safety Measures: The Contractor shall observe all the safety measures. Safety appliances have to be arranged by the Contractor at his own cost. Any compensation payable to the Contractor’s employee in the event of accident or causality has to be borne by the Contractor himself and TVNL will not be responsible on this accounts in any way. In case of any damage due to negligence mishandling and mal operation by the staff of contractor, the damage would be made good by the contractors at their own cost. In case of no compliance, proportionate deduction will be made from the bills of the contractor.

12. Scope of the work: Scope of the work is attached here as a guideline to execute the work. However contractor has to execute all the work as per direction of Engineer-in-Charge.

13. Agreement: The firm and his legally authorized representative having Power of Attorney will have to execute agreement with the ordering authority within 15 days of issue of order in the event of placement of order on them. The agreement will have to be prepared on a non-judicial stamp paper of Rs.100/- only on Nigam’s format. Bank Guarantee against Security Deposit, Performance Guarantee etc. as per order will have to be furnished well before execution of agreement. The contractor is required to produce all original paper and documents for verification before agreement failing which order will be cancelled. Contractor will not be allowed to start the work without executing the agreement.

14. Jurisdiction of Court: Any dispute between the Contractor and TVNL shall be settled in the civil court, at Berimo, at Tenughat, Jharkhand only.

15. Labour Laws: The bidder has to follow the guidelines laid under the labour law, workmen compensation. In the event of any accident / casualty to the employees of contractor, the compensation payable to the employees is to be borne by the contractor and TTPS will not be responsible in any way.

16. Taxes: All statutory taxes as applicable shall be deducted from the bill of contractor.

17. Violation of Terms & Conditions of Tender: All terms and conditions of tender shall form a part of the contract. If contractor fails to execute the work up to entire satisfaction of Engineer-in-Charge as per terms & conditions of tender, then the contract agreement can be terminated after one month prior notice and security money shall be forfeited.

18. Subletting: The successful bidder will have to execute the work directly. No subletting will be allowed.

19. Competent Authority: GMcumCE reserves the right to extend the due date and to reject any/ all the tenders or to increase / reduce/ distribute the quantity of tender without assigning any reason thereof and not bound to accept the lowest tender or to assign any reason for the rejection of the lowest tender. During the execution of work in case of any dispute between the Engineer-in-Charge and contractor, the decision of General Manager cum Chief Engineer Tenughat TPS will be final and binding.

20. Site Cleaning: The Contractor must keep clean the working area after completion of the job. Waste materials and garbage shall be disposed off by the contractor at suitable place as per the instruction of the Engineer-in-Charge. Old unserviceable spare parts if so, has to be returned by the contractor to the Central Store/Site Store of TTPS as per the instruction of the Engineer-in-Charge.

21. Facilities to be provided by TVNL:
   a. Guest house facility shall be provided to the visiting engineers/officers/expert of the Contractor on chargeable basis if available.
   b. Medical facility as available at project site shall also be extended to the employee of the contractor. No payment will be made for any medicine purchased from outside or any treatment or test done outside the TTPS Hospital.

22. Penalty: Penalty:- The contractor will have to complete the entire works within the specified period. A penalty will be imposed for delay in completion of work @ 0.5 % per week or part thereof of delay subject to maximum 5% of the work order value. If any equipment damaged during the course of completion of job that has to be suitably compensated by you & it shall be decided by GM TTPS.

23. Mobilization Time: The successful bidder will be given maximum 10 days time from the date of LOI/Work Order for mobilization of resources, manpower and enter in to agreement and starting the work. The contractor failing to enter in to agreement and start the work within 15 days will lose the work order and earnest money/security money and work will be allotted to L2, L3..... bidder at the rate of L1 bidder if they agree.

24. Telegraphic offers will be treated as defective and invalid and shall be rejected. Only detailed complete offers made on turnkey basis will be considered. No amendments, revisions and/or alterations of the tender will be permitted after the opening of tenders.

25. Every page of the tender shall be signed by the tenderer with firm stamp failing which tender is liable to be rejected.

26. In the event of tenders being submitted by a firm, it must be signed separately by each constituent partner thereof or in the event of the absence of any partner it must be signed on his behalf by a person holding a power of attorney from him authorizing to do so by digital signatures.
TENUGHAT THERMAL POWER STATION
TENUGHAT VIDYUT NIGAM LIMITED
( A GOVT. OF JHARKHAND UNDERTAKING)
PO:T.T.P.S, LALPANIA

BILL OF QUANTITY

NIT No. :03/TTPS/CONT-I/500000828/CV/2018-19

NAME OF WORK: Stability Test of Power House (2x210MW) Plant building & Structures as per Factory act & rules (Section 2(A) & 3(A) of Factory act 1948) by the statutory authority authorized by the Chief Inspector of Factories, Govt. of Jharkhand at TTPS, Lalpania.

Scope of Work

1. Structural stability and earthquake resistance is to be checked in respect of the following buildings located in Factory and Estate areas of TTPS Lalpania Bokaro.

2. List of building / structures
   1. T.G. Hall & control room
   2. Stack (chimney)
   3. Steel structure of Boiler
   4. Steel structure of Bunker
   5. Steel structure of ESP I & II
   6. Steel structure of TP and conveyer belt
   7. DM plant & control room building
   8. GCR building
   9. Compressor house
   10. CW pump house
   11. CWPT
   12. RW pump house
   13. Hydrogen plant
   14. LDO pump house
   15. PCH (Primary crusher house)
   16. SCH (Secondary crusher house)
   17. Firefighting building
   18. CHP control room
   19. Steel structure of TP and conveyer belt
   20. Track hopper and RH hoppers
   21. Any other building/structure in main plant area whose stability check should be required in view of your expert or E/I
   22. List of major machine foundation
      (i) CW pump
      (ii) TG I & II
      (iii) ID, FD, PA fan
      (iv) BFP
      (v) Mill motor (6nos.)

3. The agency would, first of all, do visual inspection of buildings and structures and identify the areas showing signs of failure/fatigue. He would, then, decide the methodology for assessment of foundation condition, wall condition, framed structure condition, slab condition and other roofs condition.

4. Then, he would plan the type and nos. of different non-destructive tests. The number of tests should be in proportion to the size of the building, variation of loading, variations in exposure to environment and other factors and also, variation in material type, so that the entire building may be represented through the test results.

5. For high buildings, test spots should be selected invariably at top level, bottom level and 2 intermediate levels. In case the firm identifies some small areas with greater damage/deterioration than the other part of building, he can make a different report of that small part so that entire building is not condemned or declared unsafe.

6. The nature and frequency of various tests would be as follows:

   Sl. No.   Test Purpose Location Relevant Codes
1 Impact Hammer Test (Rebound Hammer Test) To estimate rebound index and thereby the compressive strength of concrete and to know the homogeneity of concrete in the structure. At selected locations on RCC portions of the structures covered under the study as approved by Engineer-in-charge. IS 13311(Part2): 1992
2 Ultra- Sonic Pulse Velocity (UPV) test To know about the homogeneity and the quality of concrete. At selected locations on RCC/steel portions of the structures covered under the study by making suitable grids as approved by Engineer-in-charge. IS 13311(Part2): 1992
3 Measurements of half -cell / surface potentials To understand the extent of reinforcement corrosion. At selected locations on RCC portions of the structures covered under the study as approved by Engineer-in-charge. ASTM C876-91
4 Measurement of carbonation depth To see the depth of carbonation. At selected locations on RCC portions of the structures covered under the study as approved by Engineer-in-charge.
5. Measurement of concrete cover to rebars by using Cover Meter Test To see the adequacy of concrete cover to rebars. At selected locations on RCC portions of the structures covered under the study as approved by Engineer-in-charge.
6. Chemical analyses of concrete for chlorides, Sulphates and PH and microscopy analysis of concrete To know about the homogeneity and the quality of concrete The samples for chemical analysis will be taken from cores or concrete chunks collected from the structures as approved by Engineer-in-charge.

7. In addition to above, the agency may test the residual strength of corroded or weathered foundation, brickwork, concrete work or steelwork by conducting tensile strength and cube compressive strength tests. They would also examine strength of structures against earthquake force expected in the region. If structure found unsafe on any of these accounts, they would suggest the feasible methods of strengthening and retrofitting with elaborate sketches and details of locally available agencies and material.

8. The report would be submitted in 2 parts:
   a. Technical part showing the test results, spots tested, failures observed, repair and retrofitting plans, test data and results in form of graphs, charts, tables, sketches and text. (Both soft copies and hard copies) and
   b. Result part: As a result of analysis, the structures or part thereof, on the basis of residual strength and rate of deterioration, shall be reported as falling within one of these categories:-
      i. Safe for next 10 years.
      ii. Safe for next 5 years.
      iii. Unsafe requiring initiation of new work.
      iv. Highly unsafe requiring immediate vacation and demolition.


**Special Terms and Conditions**
- Necessary tools and tackles testing equipment as required for the job will be arranged by the agency at their own cost.
- The inspection/ test for different building / structure shall be carried out by the agency in sequence
- Work done shall be measured on the basis of physical measurement of floor area at +0.00 levels of building / structure irrespective of height and intermediate floors in that building/ structures.
- For inclined structure like conveyor tunnels and galleries the projected floor area on the horizontal plane shall be measured.
- The inspection/ test for different building / structure shall be conducted under the knowledge of authorized TTPS representative.
- The agency will take all required measure to ensure that no damages are caused to the structure / building during the conduct of test.
- If after inspection and test any building / structure are found to be unstable / unhealthy, the stability certificate in respect thereof shall be provided by you free of coast on the basis of submission of detail reports of restoration measure and test undertaken by TTPS within six month period after completion of work.
- Maximum period allowed for conducting tests and submission of reports :- 03 months.
TENUGHAT THERMAL POWER STATION
TENUGHAT VIDYUT NIGAM LIMITED
( A GOVT. OF JHARKHAND UNDERTAKING)
PO:T.T.P.S, LALPANIA

BILL OF QUANTITY

NIT No. :03/TTPS/CONT-I/500000828/CV/2018-19

NAME OF WORK: Stability Test of Power House (2x210MW) Plant building & Structures as per Factory act & rules (Section 2(A) & 3(A) of Factory act 1948) by the statutory authority authorized by the Chief Inspector of Factories, Govt. of Jharkhand at TTPS, Lalpania.

<table>
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<th>QTY</th>
<th>Unit</th>
<th>Rate (Rs.)</th>
<th>Amount (Rs.)</th>
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<td>M2</td>
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<tr>
<td>2</td>
<td>Stability test of chimney</td>
<td>1</td>
<td>Job</td>
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</table>

**BILL OF QUANTITY**

To be filled at TVNL website: webdispatcher.tvnl.in/srmprd with provided ID & password.

Note:
1. The Tenderer/Supplier shall quote their rates/prices in the prescribed format.
2. TTPS reserves the right to consider the rates and award of the contract and also reserves the right to reject the rates quoted by the party without assigning any reason. The decision of TTPS shall be final and binding on all the bidders.
SELF-DECLARATION of the Head of the Firm

I ………………………………………………………………….  S/o …………………………………………………………………........ Resident of At-
……………………………………………………………P.O.-……………………………………P.S.-……………………………….. Dist……………….. State-
……………………………………………………………PIN -……………………………………….do hereby solemnly affirm and declare as follows:-

1. That, I am aged about .......... years. (Male Y/N / female Y/N).
2. That, I/we am/are proprietor/partner of the firm …………………………………………………………………………………. At-
……………………………………………………………P.O.-……………………………………P.S.-……………………………….. Dist……………….. State………………..PIN -
………………………………………
3. That, no any CBI investigations for an offence against Government regulation and subsequently prosecuted in a court
of law against me or my above said firm.
4. That, I have never been convicted by any court of law.
5. That, I am not blacklisted or warned by any works department under Jharkhand Govt. and Non-Govt. Organization.
6. That, all the above said and documents submitted are true and correct to best of my knowledge, information and
belief. Verified and signed at ………………..on ………………2018.

Signature with Firm seal

*SELF DECLARATION of the Head of the Firm duly filled with sign & firm seal attached with tender documents & its scanned
copy may be attached online TVNL website: webdispatcher.tvnl.in/srmprd.

Annexure – III

WORKS COMPLETED AND IN PROGRESS DURING THE LAST FIVE YEARS
(INCLUDING ALL WORKS AWARDED)
[Add additional sheets, if necessary]

<table>
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<tr>
<th>Sl. No</th>
<th>Name of work &amp; Agreement No</th>
<th>Date of Start</th>
<th>Date of Completion (Time/Dt)</th>
<th>Reasons for delay &amp; compensati on levied, if any</th>
<th>Tendered cost</th>
<th>Gross cost of completion</th>
<th>Net Amt. received</th>
<th>Name, design &amp; complete address of the authority for whom the work was done</th>
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Annexure - V

FORM OF SOLVENCY CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information M/s/Sri ................................................
having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement up to a limit of Rs. ........................................ (Rupees ......................................................). This certificate is
issued without any guarantee or responsibility on the Bank or any of the officers.

(Signature)
for the Bank

Note: 1.In case of partnership firm, certificate to include names of all partners as recorded with the Bank.
2.Certificate should be on the Bank Pad & original should be submitted with documents.