

TENUGHAT VIDYUT NIGAM LIMITED
(A GOVT. OF JHARKHAND UNDERTAKING)
HINOO, DORANDA, RANCHI-834002
FAX: 0651-2251205
Website: www.tvnlonline.com

CST NO:229C

TIN NO:200992201429

CIN U4101JH1987SGC013153

PAN NO:AACCT1197L

NIT No. 06/CIVIL/W/TVNL/RAN/2017-18

Due on 19.06.2017



TENDER DOCUMENT

**SUB: STABILITY TEST OF PLANT BUILDINGS & STRUCTURES
AT TTPS, LALPANIA AS PER FACTORY ACT & RULES BY THE
PERSON AUTHORIZED BY THE CHIEF INSPECTOR OF
FACTORIES, GOVT. OF JHARKHAND.**



Tenughat Vidyut Nigam Limited

(A Govt. of Jharkhand Undertaking)
Hinoo, Doranda, Ranchi-834002, Jharkhand
TEL: 0651-2250967, 2252202, Fax: 0651-2251205

Letter No. 274/17-18

Dated 23.05.2017

NOTICE INVITING TENDER

NIT No. 06/CIVIL/W/TVNL/RAN/2017-18

On behalf of Tenughat Vidyut Nigam Limited (TVNL), Ranchi sealed tenders in two parts (Part-I Technical & Commercial Bid, Part-II Price Bid) containing three envelopes A, B & C (Requisite cost of Tender Document & Earnest Money of specific value in envelope 'A', Technical & Commercial Bid in envelope 'B' and Price Bid in envelope 'C') are invited from experienced, reputed and financially sound firms for the work of Stability Test of plant buildings & structures at TTPS, Lalpania, Dist. Bokaro as per factory act & rules by the person authorized by the Chief Inspector of Factories, Govt. of Jharkhand the details of which are as follows:

Description of Work	Stability Test of plant buildings & structures at TTPS, Lalpania, Dist. Bokaro, Jharkhand as per factory act & rules by the person authorized by the Chief Inspector of Factories, Govt. of Jharkhand.
Estimated Cost	Rs. 14,38,414.00 (Rupees Fourteen lakh thirty eight thousand four hundred and fourteen) only plus Service Tax extra as applicable.
Cost of Tender Documents (Non Refundable)	Rs. 2,000/- (Rupees Two thousand) only.
Amount of EM to be deposited in the form of DD	Rs. 29,000.00 (Rupees Twenty nine thousand) only.
Completion Period	06 (Six) months
Downloading of Tender Paper	From 26.05.2017
Last Date & Time for receipt of Tender Paper	19.06.2017 up to 14:00 Hrs.
Date & Time of Opening of Part-I of Tender	19.06.2017 at 16:00 Hrs.
Place of submission of bid documents and address for communication	Electrical Superintending Engineer (C&M), Tenughat Vidyut Nigam Limited, Hinoo, Ranchi-834002.

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

- i. The bidders shall have to submit proof of working experience of similar work in any Govt./semi- Govt. /CPSU/SPSU/ SEB's.
- ii. The average annual financial turnover during the last 03 (three) financial years ending 31st March of the previous financial year, should be at least 30% of the estimated cost.

iii. The bidder should have experience of having successfully completed similar works during last seven years ending last day of month previous to the one in which applications are invited. The successful completed similar work shall be either of the following :

a. Three similar completed works each costing not less than the amount equal to 40% of the estimated cost.

OR

b. Two similar completed works each costing not less than the amount equal to 50% of the estimated cost.

OR

c. One similar completed work costing not less than the amount equal to 80% of the estimated cost.

Similar work means the bidder must have working experience of carrying out Stability Test of buildings & structures as per factory act & rules in any Govt./ semi-Govt. / CPSU/SPSU/ SEB's.

iv. The bidder should have financial credibility /capacity of at least 20% of the estimated. Bidder may submit latest Bank Solvency Certificate of any Nationalized / Scheduled Bank in support of their financial credibility /capacity.

2. The tender document is to be downloaded from the TVNL website www.tvnlonline.com. The cost of tender document shall be deposited at the time of submission of tender paper in the shape of Bank Draft issued by any Nationalized/Scheduled Bank in favour of "TENUGHAT VIDYUT NIGAM LIMITED" payable at Ranchi. Tender shall not be considered without cost of tender document. Any type of tempering/alteration with tender document shall not be allowed and offer, if submitted so will be summarily rejected.
3. Tender without Earnest Money shall not be considered. Offers shall be accompanied with the cost of tender document and earnest money deposit (EMD) of requisite value as specified above in a separate envelope 'A' failing which offers are liable for rejection. EMD may be furnished in the form of Demand Draft from any Indian Nationalized Bank/ Scheduled Bank in favour of "TENUGHAT VIDYUT NIGAM LIMITED" payable at Ranchi.
4. 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 after the award is made by TVNL to the bidder.
5. Any corrigendum/Addendum/Extension of bid opening date and cancellation of NIT will be published through our website www.tvnlonline.com only and not through newspaper. The bidders are requested to visit our website regularly for any addendum/corrigendum/extension till opening of NIT.
6. The due date of bid opening as mentioned in the tender will remain firm. However, in case of unforeseen circumstances or due to administrative reasons the bids are not opened on the due date, the same shall be opened on the next working day at the same time. In case the last date of submission of bids is declared as holiday, the bids received up to the time of closing of bids on the next working day shall be considered for opening.
7. The undersigned reserves the right to reject any or all tenders or to distribute the job among the bidders without assigning any reason thereof.

(R. Ranjan)
Electrical Superintending Engineer (C&M)

TENUGHAT VIDYUT NIGAM LIMITED
HINOO, DORANDA, RANCHI-834002

BILL OF QUANTITY

PART- I (TECHNICAL& COMMERCIAL)

NIT No. 06/CIVIL/W/TVNL/RAN/2017-18

Sub: Stability Test of plant buildings & structures at TTPS, Lalpania, Dist. Bokaro, Jharkhand as per factory act & rules by the person authorized by the Chief Inspector of Factories, Govt. of Jharkhand.

S.N.	Particulars	Details to be furnished by the Bidder (Enclose separate sheets if required)	Flag No.	Page No.
1.	Name of the Bidder (Enclose Letter Head of firm)		I	
2.	Address of Bidder with Telephone, Fax, E-mail		II	
3.	Name of the Proprietor/ Head of the Firm and its key personnel with organizational chart giving details of qualification and experience etc.		III	
4.	Details of maintenance set up with resources like permanent employees (with designation & strength), tools & tackle and other equipment with capacities		IV	
5.	Name and Qualification of the site-in-charge		V	
6.	Work Experience of Bidder (Attach copy of work order of similar work and its successful completion certificate during last seven years as per Sl. No. 1 (iii) of QR	Work Order No..... Dated..... Completion Certificate Dated..... Work Order No..... Dated..... Completion Certificate Dated..... Work Order No..... Dated..... Completion Certificate Dated.....	VI	
7.	Financial Credibility/ Capacity (Attach Bank Solvency Certificate)		VII	

8.	Average annual financial turnover of bidder during the last 03 years (Attach audited Balance Sheet & P/L Account for last three years ending 31 st March, 2017 is necessary)	Average annual financial turnover of bidder during the last 03 (three) years Rs..... Annual Turnover FY 2016-17: Rs..... FY 2015-16: Rs..... FY 2014-15: Rs.....	VIII	
9.	Name & Designation of Authorized Signatory (Attach Power of Attorney if applicable)		IX	
10.	Nature of Firm (Proprietorship/Partnership /Pvt. Ltd./Public Sector) (Attach proof)		X	
11.	Permanent Account Number (PAN) (Attach proof)		XI	
12.	Service Tax Registration Number (Attach proof)		XII	
13.	Sales Tax/Value Added Tax Registration Number / TIN (Attach proof)		XIII	
14.	Labour License No. (Attach copy of registration)		XIV	
15.	EPF. Code No. (Attach copy of registration)		XV	
16.	Character Certificate of the Head of the Firm issued within last six month from due date of NIT. (Issued by the Officer not below the rank of Magistrate)		XVI	
17.	Particulars of Earnest Money (DD No. & Date)		XVII	
18.	Particulars of Cost of Tender Document(BOQ) (DD No. & Date)		XVIII	
19.	Other details and remarks, if any		XIX	

(Signature & Seal of Bidder)

TENUGHAT VIDYUT NIGAM LIMITED
HINOO, DORANDA, RANCHI-834002

NIT No. 06/CIVIL/W/TVNL/RAN/2017-18

Sub: Stability Test of plant buildings & structures at TTPS, Lalpania, Dist. Bokaro, Jharkhand as per factory act & rules by the person authorized by the Chief Inspector of Factories, Govt. of Jharkhand.

GENERAL TERMS & CONDITIONS

- 1. Validity of Offer:** The bid submitted by the bidders should remain valid for a minimum period of 120 days from the date of opening of Part-I unless otherwise specified.
- 2. Late Receipt of the Tender:** Special attention of the bidder is invited about the receipt of the tender in time. Tenders received after the stipulated date and time due to any reason, whatsoever, shall not be considered. Bidders are requested to see that their bids are delivered in the office of TVNL before the prescribed date and time.
- 3. Inspection of Site:** Before quoting the rate, bidders are advised to visit the work site and get satisfied with 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 document.
- 4. Scope of work:** 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 .
 - A. List of building / structures:**
 1. T.G. Hall & control room
 2. Service building
 3. DM plant& control room building
 4. GCR building
 5. Compressor house
 6. CW pump house
 7. CWPT
 8. RW pump house
 9. ESP I& II control room
 10. Store building
 11. Hydrogen plant
 12. LDO pump house
 13. Stack(chimney)
 14. PCH(primary crusher house)
 15. SCH (secondary crusher house)
 16. Firefighting building
 17. CHP control room
 18. Steel structure of Boiler
 19. Steel structure of Bunker
 20. Steel structure of ESP I& II
 21. Steel structure of TP and conveyer belt
 22. Track hopper and RH hoppers
 23. AHP control room
 24. ADM building
 25. Colony Water pump house
 26. Substation building
 27. Shyamali guest house
 28. Water over head tank A &B
 29. Any other building/structure whose stability check should be required in view of your

expert or E/I

B. List of major machine foundation

- (i) CW pump
- (ii) TG I & II
- (iii) ID,FD, PA fan
- (iv) BFP
- (v) mill motor(6nos)

C. Work Procedure:

- 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.
- 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.
- 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.

D. 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 analysis 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	

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.

E. Submission of Report: The report should be submitted in two parts :

i. 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

ii. 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:-

- Safe for next 10 years.
- Safe for next 5 years.
- Unsafe requiring initiation of new work.
- Highly unsafe requiring immediate vacation and demolition.
- To provide Certificate towards stability / non-stability of building and structures as required under factory act.

F. 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 level 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 is 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.

5. 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.
- e. The **Part-I (Techno-commercial Bid)** should be sealed in a separate envelope super scribed with NIT No., **“Part – I (Techno-commercial Bid)”**, Name and address of the bidding firm, and should be addressed to ESE (C&M), Tenughat Vidyut Nigam Limited, Hinoo, Ranchi-834002.
- f. The **Part-II (Price Bid)** should be sealed in a separate envelope super scribed with NIT No., **“Part – II (Price Bid)”**, Name and address of the bidding firm, and should be addressed to ESE (C&M), Tenughat Vidyut Nigam Limited, Hinoo, Ranchi-834002. The rate to be quoted in price part (Part-II) shall be in figure and in words both. In case of difference in the rates quoted in figures and words, the amount in words shall prevail. The bidder must quote firm rates. Bid with variable rates shall be considered invalid.
- g. Both the envelopes containing Part-I (Techno-commercial Bid and Part-II (Price Bid) should be kept in a third envelope super scribed with NIT No., Name and address of the bidding firm, and should be addressed to ESE (C&M), Tenughat Vidyut Nigam Limited, Hinoo, Ranchi-834002. Complete tender or tenders not submitted as per requirement as indicated in the NIT are likely to be rejected.
- h. 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.
- i. 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.
- j. All bids will be received in duly sealed cover within the due date and time. Bids received after the due date and time is liable for outright rejection.

- 6. Earnest Money Deposit (EMD):** Offers shall be accompanied with Earnest Money Deposit (EMD) of requisite value as specified in a separate envelope failing which offers are liable for rejection. EMD may be furnished in the form of Demand Draft from any Indian Nationalized Bank/Schedule Bank in favour of **“TENUGHAT VIDYUT NIGAM LIMITED”** payable at Ranchi.

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 TVNL to the bidder.

- 7. Security Deposit:** The successful bidder shall have to deposit total security deposit @ **10%** of order value as performance guarantee in which initial security money @ **5%** of the order value (including earnest money deposited along with tender) before executing the agreement, balance **5%** of security money will be deducted from R/A bills. The security money will be released after successful completion of work and closure of contract. Initial security money will be accepted as Bank Draft/ Bank Guarantee in the prescribed format .
- 8. Payment Terms:** The Contractor shall submit bill in triplicate for work done to the Engineer - in - charge, which will be verified by Engineer - in - Charge and department will make payment to the contractor subject to availability of fund. No interest will be paid in case of delay in any payment.. The contractor shall produce documentary evidence in support of deposit of EPF & service tax before release of payment.
- 9. Paying Authority:** The Accounts Officer, TVNL, Ranchi will be the Paying Authority.
- 10. Engineer-in-Charge:** SE (C) 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 in charge of the work and shall be binding on the contractor.
- 11. Idle Charges:** No charges for idle men, machine, plant and equipment will be allowed to agency for some reason or the other beyond control of the department.
- 12. 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 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 contractor at his/own own cost. In case of non compliance, proportionate deduction will be made from the bills of the contractor.
- 13. Agreement:** The firm or his legally authorized representative having Power of Attorney will have to execute an 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.50/- 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 Ranchi, Jharkhand only.
- 15. Labour Laws:** The bidder has to follow the guidelines laid under the labour law, workmen compensation, and EPF rules in respect of minimum wages, EPF payment and other service condition. 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 TVNL will not be responsible in any way.
- 16. Minimum Wage Guarantee:** The contractor shall strictly ensure that the minimum wages as

stipulated by GoJ from time to time is paid to their workmen. Any increase in minimum wages during the period of contract, will have to be paid to their workmen without any claim on TTPS/TVNL. If the contractor fails to comply with guarantee of minimum wages then the agreement is liable to be terminated and security money may be forfeited.

- 17. Taxes:** All statutory taxes as applicable shall be deducted from each the bill of contractor.
- 18. 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.
- 19. Subletting:** The successful bidder will have to execute the work directly. No subletting will be allowed.
- 20. Competent Authority:** Managing Director TVNL 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 GM- cum-CE, Tenughat TPS will be final and binding.
- 21. Man Power:** A list of manpower arranged by the contractor should be submitted to Engineer -in -Charge of the work before deployment and same should be deployed with due permission of Engineer -in -Charge. If the performance of the deployed person is not found up to the mark at any time, the contractor will have to replace them with experienced and suitable person.
- 22. Tools & Tackles:** The contractor should have to arrange minimum of minor and special tools & tackles as per scope of work.
- 23. Variation of quantities of work:** The contract price is based on the units rates and the quantities of items stipulated in the contract. The contract price may undergo corresponding change, if the work orders for change in quantities of items during execution of work. However, the units rates indicated in price schedules shall remain firm and shall not be subject to any escalation whatsoever. All unit prices shall be firm for variation within a limit of $\pm 15\%$ Contract value may vary within $\pm 15\%$ of the grand total of schedule as included in Work Order. Such variation shall in no degree affect the validity of the contract and it shall be performed by the contractor as provided therein and be subjected to the conditions, situation and obligations originally and expressly included in the specification and amount to be paid therefore shall be calculated in accordance with accepted scheduled of rate.
- NOTE:** - As specified above and reiterated here for clarification that the contractor shall be bound to carry out and increased or decreased portion of work without any change in unit prices and no claim on any account shall be entertained for variation without the Limit of variation allowable under the contract, is on the contract value of as a whole as included in work order and not on the value of work of any individual items.
- 24. 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.
- 25. Date of commencement:** The date of commencement of work will be considered from the date of **issue of work order.**

26. Liquidated Damages for Delay in Completion: In case of any delay in the execution of the work beyond the stipulated date of completion/ Completion schedule including any extension permitted in writing, TVNL reserves right to recover from the agency a sum equivalent to 0.5% of the value of the delay work for each week of delay and part thereof subject to a maximum of 5% of the total value of the work.

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

(Signature & Seal of Bidder)

TENUGHAT VIDYUT NIGAM LIMITED
HINOO, DORANDA, RANCHI-834002

NIT No. 06/CIVIL/W/TVNL/RAN/2017-18

Sub: Stability Test of plant buildings & structures at TTPS, Lalpania, Dist. Bokaro, Jharkhand as per factory act & rules by the person authorized by the Chief Inspector of Factories, Govt. of Jharkhand.

Measurement of Plinth areas of Plant Buildings and Structures

Name of Building	No. of Plinth	M.F.	Length/ Radius (m)	Width/ Radius (m)	Area m ²
C. W. PUMP HOUSE					
1 st Building	1	1	95.00	11.30	1073.50
2 nd Building	1	1	110.00	13.30	1463.00
3 rd Building	1	1	110.00	6.60	726.00
Pound	1	1	(121+53)/2	112.00	9744.00
Gate	1	1	53.00	17.00	901.00
Extra Building	1	1	29.00	17.00	493.00
CLEARFIELD WATER PLANT					
1 st	2	1	6.00	8.00	96.00
2 nd	1	1	21.00	10.00	210.00
Circular Tank	5	3.14	1.67	1.67	43.79
Circular Tank	2	3.14	16.71	16.71	1753.53
Building	1	1	16.00	7.50	120.00
	1	1	47.00	32.00	1504.00
RAW WATER PUMP HOUSE	1	1	30.00	9.00	270.00
D. M. PLANT					
Building	1	1	30.00	9.00	270.00
Circular Tank	1	3.14	10.50	10.50	346.19
Building	1	1	45.00	16.00	720.00
Building	1	1	52.00	27.00	1404.00
Circular Tank	2	3.14	3.50	3.50	76.93
Acid Tank	1	1	17.00	15.00	255.00
	1	1	50.00	3.50	175.00
	3	1	11.50	14.65	505.43
	1	1	33.00	19.00	627.00
G.C.R BUILDING	1	1	82.00	18.00	1476.00
	1	1	7.00	4.00	28.00
Tank	1	1	6.50	8.50	55.25
	2	1	12.50	13.00	325.00
Building	2	1	13.00	20.00	520.00
Compressor House	1	1	10.00	4.00	40.00
House	1	1	7.50	22.00	165.00
FIRE FIGHTING STATION	1	1	21.50	13.00	279.50
FIRE FIGHTING PUMP HOUSE	1	1	31.10	16.60	516.26
	1	1	30.00	20.00	600.00
POWER HOUSE					
TG Hall	1	1	211.00	45.00	9495.00
Coordination	1	1	15.00	17.00	255.00
SERVICE BUILDING	1	1	20.00	60.00	1200.00
Boiler	2	1	30.00	53.00	3180.00
Bunker	1	1	150.00	16.00	2400.00

ESP	2	1	11.00	27.00	594.00
DUST PLATFORM	4	1	10.00	8.00	320.00
AIR COMPRESSOR	1	1	18.00	10.00	180.00
	1	1	20.00	20.00	400.00
CHIMNEY (CIRCULAR)	1	3.14	10.53	10.53	347.84
ASH PEDESTAL	9	1	4.00	4.00	144.00
APH PLANT	1	1	69.00	28.00	1932.00
CHP					
TT 4	1	1	14.00	18.00	252.00
Conveyor 6	1	1	10.00	7.00	70.00
Conveyor 5	14	1	7.00	6.50	637.00
TP 3 1 st	1	1	12.00	11.00	132.00
2 nd	1	1	16.00	8.00	128.00
SCH	1	1	30.00	22.00	660.00
Conveyor 4	5	1	7.00	6.50	227.50
MCC I	1	1	9.50	6.00	57.00
	1	1	47.00	22.00	1034.00
TRACK HOPPER					
Hopper	1	1	180.00	11.50	2070.00
MCC II	1	1	15.00	10.00	150.00
Column	6	1	6.00	6.00	216.00
Stair	2	1	15.66	5.65	176.96
	1	1	19.00	14.40	273.60
	1	1	6.50	6.00	39.00
PCH	1	1	43.00	22.00	946.00
CONVEYOR NO. 3					
Column	4	1	6.00	5.00	120.00
TP 2	1	1	6.00	5.00	30.00
CONVEYOR NO. 4					
Column	2	1	6.00	5.00	60.00
CONVEYOR NO. 7					
Column	6	1	4.50	2.50	67.50
Chutes	2	1	9.50	8.00	152.00
Chutes	1	1	9.50	8.00	76.00
Column	5	1	4.50	2.50	56.25
CONVEYOR 8					
RH 3	1	1	17.50	18.20	318.50
Column	6	1	6.50	6.00	234.00
CONVEYOR 9					
Column	6	1	4.50	2.50	67.50
TP 5	1	1	12.00	10.00	120.00
CONVEYOR 9					
Column	4	1	4.50	2.50	45.00
Chutes	1	1	9.50	8.00	76.00
CONVEYOR 11					
RH 4	1	1	65.00	10.00	650.0
	1	1	10.00	11.35	113.50
Column	1	1	9.00	3.00	27.00
TP 6	1	1	16.00	11.00	176.00
CONVEYOR 13					
RH 1	1	1	160.00	14.00	2240.00
CONVEYOR 14					
Column	5	1	6.00	4.50	135.00
Hopper	1	1	85.00	9.00	765.00
LDO	1	1	62.00	14.00	868.00

HYDROGEN PLANT	1	1	33.70	28.00	943.60
CENTRAL STORE	1	1	30.00	10.10	303.00
WORKSHOP	1	1	60.00	25.91	1554.60
ADM Building	1	1	57	16	912.00
Colony water Pump House	1	1	29	11	319.00
Sub-Station Building	1	1	27	9	243.00
Shyamali Guest House	1	1	20	19	380.00
	1	1	33	13.8	455.40
Water Tank A	1	3.14	4.6	4.6	66.44
Water Tank B	1	3.14	5	5	78.50
Total Area					65952.05

(Signature & Seal of Bidder)

TENUGHAT VIDYUT NIGAM LIMITED
HINOO, DORANDA, RANCHI-834002.

BILL OF QUANTITY

PART – II (PRICE PART)

NIT No. 06/CIVIL/W/TVNL/RAN/2017-18

Sub: Stability Test of plant buildings & structures at TTPS, Lalpania, Dist. Bokaro, Jharkhand as per factory act & rules by the person authorized by the Chief Inspector of Factories, Govt. of Jharkhand.

S.N.	Description of work	Qty. (M ²)	Unit Rate	Amount (Rs.)
1.	Stability Test of plant buildings & structures at TTPS, Lalpania as per factory act & rules by the person authorized by the Chief Inspector of Factories, Govt. of Jharkhand.			

Note:

1. Total quoted cost will be the criteria for defining L₁ bidder
2. Service tax will be paid extra as applicable.

(Signature & Seal of Bidder)