



भारत हेवी इलेक्ट्रिकल्स लिमिटेड

(भारत सरकार का उपक्रम)

**BHARAT HEAVY ELECTRICALS LIMITED**

(A Govt. of India Undertaking)

TCN - 02

Ref: PSER:SCT:KDM-C2313:TCN-02

Date: 06-08-2024

Sub	Tender Change Notice (TCN) - 02	
Job	GEOTECHNICAL INVESTIGATION & TOPOGRAPHICAL SURVEY OF 2X800 MW KODERMA THERMAL POWER STATION, PHASE-II, BANJHIDIH, JHARKHAND	
Ref	1.0	Tender no. PSER:SCT:KDM-C2313:24
	2.0	BHEL's NIT, vide reference no PSER:SCT: KDM-C2313:10601 Date: 26-07-2024
	3.0	BHEL's TCN-01, vide reference no. PSER:SCT: KDM-C2313:TCN-01, Date: 31-07-2024.
	4.0	All other pertinent issues till date.

With reference to above, following points/ documents, relevant to tender, may please be noted and complied with while submitting offer.

- 1.0 Clarifications attached vide Annexure -A of TCN-02.
- 2.0 Due date of submission of offer is extended from 07-08-2024 to **08-08-2024 (13-00 hrs. IST)**.
- 3.0 Revised 'No deviation certificate' as per enclosed Annexure-2. Bidder shall submit no deviation certificate as per enclosed format only.
- 4.0 All other terms & conditions shall remain unchanged.

Thanking you,

Yours faithfully,  
for BHARAT HEAVY ELECTRICALS LTD

Sr. MGR (SCT)

Encl : As above.

पावर सेक्टर पूर्वी क्षेत्र (मुख्यालय)

POWER SECTOR EASTERN REGION, DJ-9/1, SECTOR-II, SALT LAKE CITY, KOLKATA - 700 091

फैक्स/Fax : (033) 23211960 फोन/Phone : बोर्ड/EPABX : 23211691, 23211798, 23211796

ANNEXURE-A TO TCN-02				
JOB:GEOTECHNICAL INVESTIGATION & TOPOGRAPHICAL SURVEY OF 2X800 MW KODERMA THERMAL POWER STATION, PHASE-II, BANJHIDIH, JHARKHAND				
Tender no PSER: SCT:KDM-C2313:24				
CLARIFICATION / MODIFICATION				
Sl. No	Reference clause of tender document	Existing Provision	Bidder's Query	BHEL's Clarification
1	Clause No 8.1 Standard Specification for Geotechnical Investigation	All laboratory tests shall be conducted in an approved laboratory using approved apparatus complying with the requirements and specifications of Indian standards or other approved standards for this class of work.	Proposed Criteria:-Soil & Rock testing shall be conducted by Bidder in-house testing laboratory holding valid NABL accreditation under ISO 17025: 2017 covering testing parameters of soil & rock each mentioned in BOQ. Calibration of all the instruments and their accessories shall be done carefully and precisely.	Shall be as per tender specification. Bidder is also requested to refer clause no. 8.3 and 10.0 of Vol-IF-TCC-CML in this regard.
2	Clause No 2 Standard Specification for Geotechnical Investigation	The work shall include mobilization of all necessary equipments, providing necessary engineering supervision and technical personnel, skilled and unskilled labours, arranging water for drilling etc as required to carry out the entire field as well as laboratory investigation, analysis and interpretation of test data collected and preparation of a geotechnical report. The entire field as well as laboratory investigation work shall be supervised by a graduate/post graduate in civil engineering with atleast 5 years of site experience in respective areas of geotechnical investigation work. A geologist shall also be deputed at site during investigation whenever rock drilling is undertaken. The scheduling of laboratory tests, analysis and interpretation of test results, drafting of report and recommendations shall be carried out by a post graduate in geotechnical engineering with atleast 5 years of experience.	Proposed Criteria:-Bidder should have in-house man power resources with qualification: 1.Project Incharge : Minimum Educational Qualification of M. Tech in Geotechnical Engineering/ M. Sc. Geology or equivalent and Minimum Experience of Post qualification experience of minimum 10 (ten) years in geotechnical investigation works and interpretation of test results Experience in evaluation of rock and soil parameters and ability to write a Geotechnical Interpretative Report. 2.Geotechnical Engineer/Geologist:Minimum Educational Qualification of Graduation in Civil Engineering/B. Sc.(Geology) or equivalent and Minimum Experience of Post qualification experience of minimum 7 (seven) years' Experience in conducting land geotechnical investigations of five years. Experience in handling investigation equipment, preparation of bore logs/field report, collection of samples and conducting field tests. 3.Civil Engineer (2nos.):Minimum Educational Qualification of Graduate / Diploma in Civil Engg and Minimum Experience of Minimum 3/5 years in geotechnical investigation works.	Bidder is requested to follow the specification.
3	Clause No. 2.7.9 GCC Vol-IB	If the contractor fails to maintain the required progress of work which results in delay in the completion of the work as per the contractual completion period, BHEL shall have the right to impose Liquidated Damage/Penalty at the rate of 0.5% of the contract value, per week of delay or part thereof subject to a maximum of 10% of the contract value.	Proposed Criteria:-If the contractor fails to maintain the required progress of work which results in delay in the completion of the work as per the contractual completion period, BHEL shall have the right to impose Liquidated Damage/Penalty at the rate of 0.2% of the contract value, per week of delay or part thereof subject to a maximum of 5% of the contract value.	As per tender.
4	General	General	What is the total number of boreholes?	There are approx. 220 to 250 bore holes which may vary as per layout requirements.
5	General	General	Is hydraulic Rig Required?	Yes.
6	General	General	At what depth from the ground level plate load test and cyclic plate load test to be conducted ?	Test depth shall be mentioned in Geotechnical Investigation Layout drawing. However, maximum test depth is 4m from ground level.
7	General	General	Is plate load test & cyclic plate load test is to be conducted in the soil or in the rock? How many numbers in the rock and how many number in soil?	It can be conducted on soil/rock as per sub-stratification and requirement of geotechnical parameter for design.
8	General	General	Can heavy vehicles (JCB, Excavator or loaded truck) be used as counterweight as an alternate methodology instead of kentledge method?	Bidder is requested to follow IS 1888 & IS 5249 for the same.
9	General	General	Depth of watertable at site?	As per preliminary geotechnical investigation data, ground water table is varying from 2 to 3m. However it may vary as per site condition.
10	General	General	upto what depth Dynamic Cone Penetration Test is to be done?	It shall be as per IS code.
11	General	General	Pressurometer test in soil or rock? If needed in both, upto what depth is to be considered in rock and in soil?	It shall be as per BOQ and specification
12	General	General	kml file of site/ Area of Interest boundary?	It is the bidder's responsibility to provide the same.
13	General	General	Will GTS benchmark coordinates be provided to us before commencing the survey?	Plant coordinates shall be provided to successful bidder.
14	General	General	What type of terrain is it?	Bidder is requested to visit the site and understand the same.
15	General	General	Is thick vegetation present in the Area of Interest? If yes, what type of vegetation?	Bidder is requested to visit the site and understand the same.
16	General	General	How much of the survey Area of interest has waterbodies or nalla?	Bidder is requested to visit the site and understand the same.
17	General	General	How much area requires jungle clearance?	Bidder is requested to visit the site and understand the same.
18	General	General	Will GTS benchmark be shown to us along with their coordinates by BHEL?	Plant coordinates shall be provided to successful bidder.

ANNEXURE-A TO TCN-02				
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Tender no PSER:SCT:KDM-C2313:24				
CLARIFICATION / MODIFICATION				
Sl. No	Reference clause of tender document	Existing Provision	Bidder's Query	BHEL's Clarification
19	General	General	More depth of Nalla or any other water body to be surveyed within the Area of Interest?	It shall be as per specification only.
20	General	General	As per IS 1892 (2021) Cl. No. 5.5, Drilling operation through rock strata shall be carried out by hydraulic feed rotary core drilling equipment using double tube core barrel to ensure proper recovery and maintain quality of work.	Latest revision of IS 1892 is to be followed. It is already mentioned in Technical specification for Geotechnical Investigation, clause no. 5.0
21	General	General	We have a thick overburden of 8-10 meter above the rock layer. Thus conduction of proper SPT is a necessary from foundation design point of view. So we propose that SPT shall be conducted at site by using Automatic Trip Hammer only as per IS 1892 (2021) Cl. No. 6.1	Latest revision of IS 1892 is to be followed. It is already mentioned in Technical specification for Geotechnical Investigation, clause no. 5.0
22	General	General	All the laboratory tests shall be conducted from NABL Accredited laboratory only enabling standardization of test parameters.	Bidder's understanding is correct and shall be in line with tender specification.

**FORMAT FOR NO DEVIATION CERTIFICATE**  
**(To be submitted in the bidder's letter head)**

BHARAT HEAVY ELECTRICALS LIMITED,  
Power Sector - Eastern Region,  
Plot no 9/1, DJ Block, Sector – II, Salt Lake City,  
Kolkata – 700 091

Sub	No Deviation Certificate.	
Job	GEOTECHNICAL INVESTIGATION & TOPOGRAPHICAL SURVEY OF 2X800 MW KODERMA THERMAL POWER STATION, PHASE-II, BANJHIDIH, JHARKHAND	
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	5.0	All other pertinent issues till date.

Dear Sirs,

With reference to above, this is to confirm that as per tender conditions, we have visited site before submission of our offer and noted the job content & site conditions etc. We also confirm that we have not changed/ modified the tender documents as appeared in the website/ issued by you and in case of such observance at any stage, it shall be treated as null and void.

We hereby confirm that we have not taken any deviation from tender clauses together with other references as enumerated in the above referred NIT. We hereby confirm our unqualified acceptance to all terms & conditions, unqualified compliance to technical specification, integrity pact (if applicable) and acceptance to reverse auctioning process.

In the event of observance of any deviation in any part of our offer at a later date whether implicit or explicit, the deviations shall stand null & void.

We confirm to have submitted/uploaded offer/documents in accordance with tender instructions with acceptance of the terms & conditions of the tender by us and as per aforesaid references.

Thanking you,

Yours faithfully,

(Signature, date & seal of authorized  
representative of the bidder)