BHARAT HEAVY ELECTRICALS LIMITED TRANSMISSION BUSINESS GROUP SUBCONTRACTS MANAGEMENT 6TH FLOOR, BHEL SADAN, PLOT NO. 25, SECTOR 16A, NOIDA, DISTT. – GAUTAM BUDDH NAGAR (U.P.) - 201301



TENDER DOCUMENTS

FOR

SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN.

CUSTOMER

POWERGRID CORPORATION OF INDIA LIMITED (PGCIL)

TENDER SPEC. NO.: TBSM/BARMER/SI/TENDER/24-25

DATE: 01.03.2025

TRANSMISSION BUSINESS GROUP

SUBCONTRACTS MANAGEMENT

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TRANSMISSION BUSINESS GROUP SECTOR-16A, NOIDA -201301

e-mail: akmeena@bhel.in

DATE: 01.03.2025

NOTICE INVITING TENDER

REF.: TBSM/BARMER/SI/TENDER/24-25

SUB: TENDER FOR "SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN".

Dear Sirs,

1. Sealed tenders are invited for the following:

NAME OF WORK	TIME OF COMPLETION	EARNEST MONEY DEPOSIT	TENDER SUBMISSION DATE AND TIME	TENDER OPENING DATE & TIME
Soil Investigation & Topography Survey work at 765/400/220kV Barmer	2 months from the		12.03.2025 11:00 hrs.	12.03.2025 16:00 hrs. (Technical bid
S/S (New) of PGCIL at Barmer in Rajasthan	date of LOI	Nil		only)

2. Bidder has to submit offer directly through E-PROCURMENT MODE. Bidder may visit https://eprocurebhel.co.in

<u>Procedure for Submission of Tenders through e-tendering:</u> The tender is also floated online through our E-Procurement Site https://eprocurebhel.co.in. The bidder may respond by submitting their offer online in our e-Procurement platform at https://eprocurebhel.co.in

Offers are invited in two-parts only.

Documents Comprising the e-Tender

The tender shall be submitted online EXCEPT EMD (which shall be submitted in physical form (as described in NIT cl. No.1) above as mentioned below:

a) Technical Bid (Un priced Tender)

All Technical details (e.g. Eligibility Criteria requested (as mentioned below)) should be attached in e-tendering module, failing which the tender stands invalid & may be REJECTED. Bidders shall furnish the following information along with technical tender (preferably in pdf format):

- i) Earnest money Deposit (EMD) furnished in accordance with NIT Clause.
- ii) Technical Bid (without indicating any prices).

b) Price Bid:

- i) Prices are to be quoted in the attached Price Bid format online on e-tender portal.
- ii) The price should be quoted for the accounting unit indicated in the e-tender document.

- iii) Note: It is the responsibility of tenderer to go through the Tender document to ensure furnishing all required documents in addition to above, if any. Any deviation would result in REJECTION of tender and would not be considered at a later stage at any cost by BHEL.
- iv) A person signing (manually or digitally) the tender form or any documents forming part of the contract on behalf of another shall be deemed to warrantee that he has authority to bind such other persons and if, on enquiry, it appears that the persons so signing had no authority to do so, the purchaser may, without prejudice to other civil and criminal remedies, cancel the contract and hold the signatory liable for all cost and damages.
- v) A tender, which does not fulfil any of the above requirements and/or gives evasive information/reply against any such requirement, shall be liable to be ignored and rejected.
- c) Uploading of the price bid in prequalification bid or technical bid may RESULT IN REJECTION of the tender.
- d) Tenders shall be uploaded with all relevant PDF/zip format. The relevant tender documents should be uploaded by an authorized person having Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION digital signature certificate (DSC).

TO,

Ashok Kumar Meena Sr. DGM (TBSM) BHARAT HEAVY ELECTRICALS LIMITED, TRANSMISSION BUSINESS GROUP,

6th Floor, BHEL SADAN, Plot no.: - 25, Sector- 16A, Noida,

Distt. - Gautam Buddh Nagar, UP-201301 TELEPHONE: 0120-6748545, 9831038136

E-mail: akmeena@bhel.in

- 3. Bidders may please note that no other mode of bid submission shall be considered for evaluation apart from Clause no. 2 mentioned above.
- 4. The prospective bidders who have downloaded the tender documents from our website are requested to send their acknowledgement and willingness to participate in the tender to the undersigned, through fax or email.
- 5. Offers should be strictly in accordance with the Tender Specifications and General Instructions to Tenderer enclosed herewith.
- 6. BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) for this tender. RA shall be conducted among the techno-commercially qualified bidders as per RA Guidelines.

Price bids of all techno-commercially qualified bidders shall be opened and same shall be considered for RA. In case any bidder(s) do(es) not participate in online Reverse Auction, their price bid along with applicable loading, if any, shall be considered for ranking."

- 7. The contractor shall give his explicit confirmation without any deviations to the HSE (Health, Safety and Environment) requirements as per enclosed specification No. TBSM/HSE/NIT-01, Rev-02 Date 31.01.2024. Contactors are also required to furnish details as per Annexure (HSE) to NIT along with their offer. Offers received without compliance & data about HSE requirements are liable to be rejected.
- 8. All documents submitted with the offer shall be signed and stamped in each page by authorized representative of the bidder.

- 9. Clarifications, if any, can be obtained from the undersigned but such requests should be submitted well before the due date for submission of tenders. Due date for submission and opening of tenders will not be extended on such grounds.
- 10. Drawings & FQP enclosed with the NIT (if provided) are for tender purpose only. Drawings & FQP may get change during execution stage and work to be carried as per latest RFC drawings & Field Quality Plan (FQP).
- 11. Construction/ RFC drawing/ Fronts shall be furnished progressively as per project requirement and no claim towards idling charges/ project overheads etc. borne by the contractor on account of non-availability of drawings/ fronts shall be entertained.
- 12. Completion period of the work has been envisaged under best possible conditions. Any changes/ deviation during execution shall be dealt as per relevant clauses mentioned in general/ special conditions of contract for civil works.
- 13. "In case this tender is awarded to first time contractor*, then the bidder shall be eligible to qualify for the next tender of similar work# of BHEL, TBG; only after successful executing of 50% (fifty percent) of this work prior to the date of next tender (in which bidder desires to quote) and on satisfactory performance feedback by BHEL site Incharge."
 - * First time contractor: The bidders who have not successfully executed more than 50% (fifty percent) of awarded similar work by BHEL (TBG/ ISG/Power Sector/Any BHEL Unit) in last 5 years from date of NIT.

The bidders who have taken any order from BHEL under 1st time category, and desires to further participate in BHEL tenders, needs to submit a certificate/ undertaking mentioning the reason of not executing 50% of awarded work, hence the criteria under 1st time bidder shall not be applicable to them. The certificate/ undertaking shall be duly certified by Site In charge of BHEL

Similar work: Similar to nature of work of the tender under consideration.

- 14. Before submission of offer, the tenderer is advised to inspect the work & the environments and be well acquainted with the actual working and other prevalent conditions, facilities available, sourcing of material and labour, means of transport and access to site, accommodation, etc. No claim will be entertained later on the grounds of lack of knowledge on any of these conditions/ resources.
- 15. The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.
- 16. Integrity commitment, performance of the contract and punitive action thereof:
 - 16.1. Commitment by BHEL:

BHEL commits to take all measures necessary to prevent corruption in connection with the tender process and execution of the contract. BHEL will during the tender process treat all Bidder(s) in a transparent and fair manner, and with equity.

- 16.2. Commitment by Bidder/ Supplier/ Contractor:
- 16.2.1. The bidder/ supplier/ contractor commits to take all measures to prevent corruption and will not directly or indirectly influence any decision or benefit which he is not legally entitled to nor will act or omit in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India.
- 16.2.2. The bidder/ supplier/ contractor will, when presenting his bid, disclose any and all payments he has made, and is committed to or intends to make to agents, brokers or any other intermediaries in connection with the award of the contract and shall adhere to relevant guidelines issued from time to time by Govt. of India/ BHEL.
- 16.2.3. The bidder/ supplier/ contractor will perform/ execute the contract as per the contract terms & conditions and will not default without any reasonable cause, which causes loss of business/ money/ reputation, to BHEL.

If any bidder/ supplier/ contractor during pre-tendering/ tendering/ post tendering/ award/ execution/ post-execution stage indulges in mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, then, action may be taken against such bidder/ supplier/ contractor as per extant guidelines of the company available on www. bhel.com and/or under applicable legal provisions".

- 17. Also, offer of the bidders who are suspended (under hold/ delist) for business dealings by BHEL, TBG shall not be considered. Please note that lifting/ restoration of suspension (Ban/Hold/ De-list) of business dealing is not automatic after expiry of specified suspension period. Hence, vendor shall be considered as suspended for business till suspension is lifted by BHEL in writing on specific request of the vendor as per extant guidelines.
- 18. BHEL Fraud Prevention Policy, "The Bidder along with its associate/ collaborators/ sub-contractors/ sub-vendors/ consultants/ service providers shall strictly adhere to BHEL Fraud Prevention Policy displayed on BHEL website http://www.bhel.com and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice."
- 19. Offers will be scrutinized based on the qualifying requirements and only those who are technically and financially capable to execute the Job and who fulfil the Pre-Qualifying Requirements (PQR) are eligible to quote against the above NIT. However, final acceptance of the bidder/ offer shall be subject to acceptance of our customer.
- 20. The evaluation currency for this tender shall be INR.
- 21. In the course of evaluation, if more than one bidder happens to occupy L-1 status, effective L-1 will be decided by soliciting discounts from the respective L-1 bidders.
 - In case more than one bidder happens to occupy the L-1 status even after soliciting discounts, the L-1 bidder shall be decided by toss/ draw of lots, in the presence of the respective L-1 bidder(s) or their representative(s).
 - Ranking will be done accordingly. BHEL's decision in such situations shall be final and binding.
- 22. Technical Bid will be opened in the office of undersigned. If required, technical discussions will be held with only those bidders who have taken any deviations. The price bids will be opened subsequently, after Technical Bids of all the bidders have been evaluated and freezed. Bidders should quote their most competitive rates as there will not be any price negotiation. However, if felt necessary by BHEL, price negotiation will be held with lowest bidder (L-1) only. IT WOULD BE PREFERRED THAT YOUR OFFER IS WITHOUT ANY DEVIATION w.r.t. TENDER SPECIFICATIONS AND THE SAME MAY BE CLEARLY MENTIONED ON THE COVERING LETTER ACCOMPANYING THE TECHNICAL BID. Offers with deviations are likely to be rejected.
- 23. In case any adverse information is received concerning performance, capability or conduct of the bidder after issue of tender enquiry, BHEL reserves the right to reject the offer at any stage as deemed fit.
- 24. Any materials (if required) for this works have to be procured from Customer approved sources only. It will be the bidder's responsibility to get the approval of materials and vendors for materials.
- 25. The purchase preference for central P.S.U.s shall be given as per the prevailing Government policy.
- 26. Work schedule and the deployment of manpower and T&P resources committed by the contractor in their offer, to match the scheduled completion, shall be submitted by contractor and mutually agreed with site In-charge immediately after the award of work. Further, the contractor shall mobilise at site within two weeks of award of work.
- 27. In case an offer is not being submitted by the prospective bidders against this tender, they may send their "regret" letter to this office, for information.
- 28. Details of qualifying work(s) executed by the bidder will be forwarded to the principal employer for verification of the work with respect to completion, commencement & completion date and value of

- the work executed. Performance feedback of the bidder will also be sought from the principal employer.
- 29. The bidder representative may be called for discussion with the committee. His originals may be verified by the committee. In addition to above their organisation chart and detail list of manpower, tools & plants and technically capability will be discussed and ascertained by the committee.

30. Conflict of Interest among bidders/Agents: -

""A bidder shall not have conflict of interest with other bidders. Such conflict of interest can lead to anti-competitive practices to the detriment of Procuring Entity's interests. **The bidder found to have a conflict of interest shall be disqualified**. A bidder may be considered to have a conflict of interest with one or more parties in this bidding process, if:

- a) they have controlling partner (s) in common; or
- b) they receive or have received any direct or indirect subsidy/ financial stake from any of them;or
- c) they have the same legal representative/agent for purposes of this bid; or
- d) they have relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another <u>Bidder</u>; **or**
- e) Bidder participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all bids in which the parties are involved. However, this does not limit the inclusion of the components/ sub-assembly/ Assemblies from one bidding manufacturer in more than one bid; or
- f) In cases of agents quoting in offshore procurements, on behalf of their principal manufacturers, one agent cannot represent two manufacturers or quote on their behalf in a particular tender enquiry. One manufacturer can also authorise only one agent/dealer. There can be only one bid from the following:
 - 1. The principal manufacturer directly or through one Indian agent on his behalf; and
 - 2. Indian/foreign agent on behalf of only one principal;

or

- 3. A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the contract that is the subject of the Bid; **or**
- 4. In case of it holding company having more than one independently manufacturing units, or more than one unit having common business ownership/management, only one unit should quote. Similar restrictions would apply to closely related sister companies. Bidders must proactively declare such sister/ common business/ management units in same/ similar line of business."

Thanking you,

Yours faithfully, For and on behalf of BHEL,

(Ashok Kumar Meena) Sr. DGM /TBSM

TO BE FILLED BY TENDERER OVER THEIR LETTERHEAD

ANNEXURE - X

REF.: TBSM/BARMER/SI/TENDER/24-25	DATE: 01.03.2025
SUB: TENDER FOR "SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN".	AT 765/400/220KV
It is certified that General Instructions and Information for tenderer have been reat to and each page of tender offer has been initialled and stamped.	ad/ complied/ agreed
Also It is being declares that we (Bidder(s). This applies on or non-submission
In case, the Bidder is found having indulged in above activities, suitable action shal per extant policies/ guidelines	l be taken by BHEL as

Name and Designation of Authorised person (s) Signing the tender on behalf of the tenderer

(Signature of Tenderer)

(TO BE FILLED BY TENDERER OVER THEIR LETTERHEAD)

ANNEXURE - Y

REF.: TBSM/BARMER/SI/TENDER/24-25	DATE: 01.03.2025
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SUB: TENDER FOR "SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220K BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN".			
Subject: Declaration confirming knowledge about Site	e conditions		
I/We,have visited the Project Site with reference to above full knowledge and information about the Site condit Climate, the Law & Order and other conditions preval acquired information about availability of manpower, etc.	BHEL Tender Specifications and acquired ions including Wage structure, Industrial ent at and around the Site. Also, we have		
We further confirm that the above information is truclaim of any nature due to lack of knowledge of Site co	•		
I/We, hereby offer to carry out work as detailed in a accordance with Terms & Conditions thereof.	bove mentioned Tender Specification, in		
(Signature of Tenderer)			
	and Designation of Authorised person (s) ning the tender on behalf of the tenderer		

ANNEXURE – Z

REF.: TBSM/BARMER/SI/TENDER/24-25

DATE: 01.03.2025

SUB: TENDER FOR "SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN".

Subject: Authorization of representative who will participate in the Online Reverse Auction Process:

1	NAME & DESIGNATION OF OFFICIAL	
2	POSTAL ADDRESS (COMPLETE)	
3	TELEPHONE NOS. (LAND LINE & MOBILE BOTH)	
4	FAX NO.	
5	E-MAIL ADDRESS	
6	NAME OF PLACE / STATE / COUNTRY, WHEREFROM S/HE WILL PARTICIPATE IN THE REVERSE AUCTION	

BHARAT HEAVY ELECTRICALS LIMITED TRANSMISSION BUSINESS GROUP, NOIDA PRE-QUALIFYING REQUIREMENTS

DATE: 01.03.2025

Tender Ref. No.: TBSM/BARMER/SI/TENDER/24-25, DATE: 01.03.2025

SUB: TENDER FOR "SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN".

Tenders (Under two-part bid system) are invited from competent contractors for subject works. Only those who are technically and financially capable to execute the Job and who fulfil the Pre-Qualifying Requirements [PQR] given under are eligible to quote against the above NIT. Tenderers should submit their offer as per the procedure specified in tender documents. The PQR of contractor for tender submission shall be is as under:

SI. No.	Criteria	Description
A	Turn Over	Bidders should have a minimum average annual turnover (Annual Gross Revenue from operations/ Gross operating income as incorporated in the profit & loss account excluding Other Income) of ₹ 6,80,537/- for best three fin. Years i.e. 36 months out of last five financial years (2019-20, 2020-21, 2021-22, 2022-23 & 2023-24) and should submit audited balance sheet and Profit & Loss Account Sheet of these years.
		The audited financial statements must be signed by the owner and the auditor. Auditors seal, Name, Membership No., Firm Registration No. & firm name (if applicable), UDIN and the capacity in which he is signing (Proprietor/Partner), must be mentioned on the Profit & Loss A/c and Balance Sheet.
		In case of proprietorship and partnership firms where Audited Profit & Loss A/c and Balance Sheet is not mandatory as per extant rules, CA certificate certifying turnover and profit for the required financial years must be submitted. CA certificate must be on his letter head mentioning his/her name, Membership No., Firm Registration No. & firm name (if applicable), UDIN, capacity in which he is signing (Proprietor/Partner), date and place of signing.
		In case audited balance sheet is not available due to turnover being less than statutory requirement of audit, bidder should furnish self-certified copies of Balance Sheet, Profit & Loss account along with income tax returns and form 26AS of these years.
В	Profit & Networth	Bidder should have earned profit in at least one financial year during the period of last three Financial Years as per SI. No. A above and Net worth of the Bidder based on the latest Audited Accounts as furnished for 'A" above should be positive. Net worth = Paid up share capital + Reserves. (Net worth is required to be evaluated in case of companies.
С	Similar Work	The bidder should have successfully completed "Soil investigation work in substation/power plant/transmission line/infrastructure project" during last seven years ending on 31.01.2025 and should be either of the following: i. Three similar jobs executed costing (except service tax/GST) not less than Rs. 7,23,444/-each. OR

Tender Ref. no: - TBSM/BARMER/SI/TENDER/24-25 DATE: 01.03.2025

		ii. Two similar jobs executed costing (except service tax/GST) not less than Rs. 9,04,305/- each.
		OR
		iii. One similar job executed costing (except service tax/GST) not less than Rs.
		14,46,888/
D	Additional	In addition to SI. No. C above, the bidder should have experience of electrical resistivity
	Qualification	test & topographic survey work.

Note:

- 1. Experience mentioned at Sl. No. D above may be included in work order furnished towards Sl. No. C or separate work order of any value.
- 2. The Bidder shall submit Contract Agreement/Work Order/LOI with BOQ/Performance/completion/execution certificate issued by customer/ contractor or any other document accepted to BHEL along with technical bid in support of qualification.
- 3. Only those work credentials will be considered that already completed and completion certificate available for that work.
- 4. In order to technically qualify in this tender, bidder should meet all criteria i.e. A, B, C & D mentioned above.
- 5. If the job is completed in the last seven years period, as specified above, even if it has been started earlier, the same will also be considered meeting the qualifying requirements.
- 6. Consortium/ JV bidding is not allowed.
- 7. BHEL reserves the right to:
 - (a) Accept or reject any bid received at its discretion without assigning any reasons whatsoever.
 - (b) Postpone the above-mentioned date, split and distribute the work among more than one bidder without assigning any reason whatsoever.
 - (c) May ask for further qualification during techno commercial scrutiny of bids received.
 - (d) May ask for further proofs including TDS certificates/ Form 26AS/ Final bill/ payment detail for the said job for cross- verification.
- 8. BHEL shall not be responsible for any delay, loss, damage for bids sent by post.
- 9. BHEL shall not be liable for any expenses incurred by bidder in preparation of bid irrespective of whether it is accepted or not.
- 10. Quotations received from bidders who do not fulfil the PQR shall be summarily rejected without any further evaluation and information to bidders.
- 11. Canvassing i.e. soliciting favour, seeking advantage etc. in any form is strictly prohibited and any bidder found to have engaged in canvassing shall be liable to have his bid rejected summarily.
- 12. If the bidder deliberately gives any wrong information in his tender to create in circumstances for the acceptance to his bid, BHEL reserves the right to reject such application.
- 13. Bidder's selection is subject to approval of BHEL's customer for this work. The approval/acceptance of bidders from Customer is mandatory requirement for subject tender.
- 14. All corrigenda, addenda, amendments and clarifications to this Tender will be hosted in web page, www.bhel.com and https://eprocurebhel.co.in and not in the newspaper. Bidders shall keep themselves updated with all such amendments.

PROJECT INFORMATION

1.0 CUSTOMER:

M/s POWERGRID CORPORATION OF INDIA LIMITED

2.0 PROJECT LOCATION AND DETAILS:

TENDER FOR "SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN".

Address of Site:

Village: Sura-Charnan/Sura-Jageer, P.O.: Sura

Tehsil: Barmer, District: Barmer,

Rajasthan-344011

3.0 CONTACT PERSON: FOR CONTRACTUAL ISSUES

Ashok Kumar Meena Sr. DGM (TBSM) SUBCONTRACTS MANAGEMENT, TRANSMISSION BUSINESS GROUP,

Plot No. 25, Sector-16A, Noida,

Distt. Gautambudh Nagar, UP-201301

PHONE: 0120-674-8545/9831038136

E-mail: akmeena@bhel.in

CONTACT PERSON: FOR ENGINEERING ISSUES

Vinaya Kumar Anand Sr. Manager (TBEM-Civil) TRANSMISSION BUSINESS GROUP, Plot No. 25, Sector-16A, Noida,

Distt. Gautambudh Nagar, UP-201301

PHONE: 0120-674-8548 / 9810512040

E-mail: vinayanand@bhel.in

CONTACT PERSON: FOR CONTRACT EXECUTION ISSUES

Sanjeev Kumar Sr. DGM (Sector Head-TBSS) TRANSMISSION BUSINESS GROUP PE & SD Building R.C. Puram, Hyderabad-502032

PHONE: 8330923898 E-mail: ksanjeev@bhel.in

HSE CONDITIONS at a GLANCE (for bidders)



Health Safety and Environment Management



BHARAT HEAVY ELECTRICALS LIMITED

TRANSMISSION BUSINESS GROUP



HSE Department, HQ, Noida

Doc No. TBG/HSE/NIT-01 Rev No. : 02

Date: 31.01.24

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HSE Conditions at a Glance for Bidders



Transmission Business Group, Noida

DOCUMENT CONTROL						
Document number:		TBG/HSE/NIT-01				
Issue numbe	r:	00	Issue date:		08.01.2020	
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Revision num	ber:	02	Revision date :		31.01.2024	
		Prepared by		Ар	pproved and Issued for use by	
Name		Arvind Kumar Pandey			RS Pathwar	
Designation		Sr. Engineer		Dy. General Manager		
Signature	-sd-			-sd-		
Date	Pate 31.01.2024		31.01.2024		31.01.2024	
Doc. copy issue no. :			[oc. copy issue c	date :	
	Name		Designation		Signature	
Issued to:						
	Name		Designation		Signature	
Issued by :						

BHARAT HEAVY ELECTRICALS LIMITED

TRANSMISSION BUSINESS GROUP



HSE Department, HQ, Noida

Doc No. TBG/HSE/NIT-01

Rev No. : 02 Date: 31.01.24

HSE Conditions at a Glance for Bidders

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BHEL TBG through its long experience and policy, has developed a culture to consider wellbeing of the society, protection of environment and occupational health and safety of its workers first. TBG has also a culture of transparency in all its business activities. In line to this culture, this NIT annexure is prepared as a peeping window in to the TBG HSE requirements which need to be 100% complied by the successful bidders while executing the contract. Interested bidders should go through these HSE conditions:

1. BHEL HSE Policy



In BHEL, Health, Safety and Environment (HSE) responsibilities are driven by our commitment to protect our employees and people we work with, community and environment. BHEL believes in zero tolerance for unsafe work/non-conformance to safety and in minimizing environmental footprint associated with all its business activities. We commit to continually improve our HSE performance by:

- Developing safety and sustainability culture through active leadership and by ensuring availability of required resources.
- Ensuring compliance with applicable legislation, regulations and BHEL systems.
- Taking up activities for conservation of resources and adopting sound waste management by following Reduce/Recycle/Reuse approach.
- Continually identifying, assessing and managing environmental impacts and Occupational Health & Safety risks of all activities, products and services adopting approach based on elimination/substitution/reduction/control.
- Incorporating appropriate Occupational Health, Safety and Environment criteria into business decisions, design of products & systems and for selection of plants, technologies and services.
- Imparting appropriate structured training to all persons at workplace and promoting awareness amongst customers, contractors and suppliers on HSE issues.
- Reviewing periodically this policy and HSE Management Systems to ensure its relevance, appropriateness and effectiveness.
- Communicating this policy within BHEL and making it available to interested parties.

Atul Sobti

Chairman & Managing Director

June 5, 2018



HSE Department, HQ, Noida

Rev No. : 02 Date: 31.01.24

Doc No. TBG/HSE/NIT-01

HSE Conditions at a Glance for Bidders | Page-3 of 18

2. Legal Compliances:

a. Statutory Provisions: All the sub-contractors are to comply with client specific rules and procedures, the National legislations and codes, in particular the following or their revised versions:

Srl.	Acts/Rules Name	Srl.	Acts/Rules Name
No		No	
1	The Factories Act 1948, Amendment Act	11	Contractor labour Act, 1970
	1947		(Regulation and abolition)
2	The Environment Act 1986	12	Provident fund Act, 1952
3	Workmen's Compensation Act, 1923	13	Payment of gratuity Act, 1972
4	Building and Other Construction Workers	14	Indian Explosives Act and the explosives
	(Regulation of employment and condition of		Rules 2008
	service) Act, 1996		
5	Buildings and Other Construction Workers	15	The Gas Cylinder Rules, 2016, Static and
	Welfare Act, 1996		Mobile Pressure Vessels (Unfired) Rules
			2016
6	Payment of wages Act, 2017	16	The Indian Electricity Act 2003 and Indian
	Equal remuneration Act,		Electricity Rules 2005
7	Minimum wages Act.1948	17	The Atomic Energy Act, 2015
8	Employers liability Act, 1938	18	The atomic energy (Radiation Protection)
			Rules. 2004
9	Industrial dispute Act, 1947	19	National Fire Protection Association (NFPA),
10	maternity benefit amendment act 2017	20	National Building Code of India 2016 etc.

b. Indian Standard (IS) Codes related to HSE

All the sub-contractors are to comply with client specific rules and procedures, the National legislations and codes in particular the following or their revised versions:

Srl	IS Code	Applies on
1	IS: 4081 -1986	Safety code for Blasting and Related Drilling operations
2	IS: 3764 -1992	Safety code for excavation work

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3	IS: 5121 -1969	Safety code for pilling and other deep foundations
4	IS: 2750 -1964	Specification for steel scaffoldings
5	IS: 3696 (Part-I)-1987	Safety code for scaffolds and Ladders: Part- I Scaffolds
6	IS: 3696 (Part-II) -1991	Safety code for scaffolds and Ladders: Part –II Ladders
7	IS: 4082 -1977	Recommendations on stacking and storage of construction materials at
		site (First revision)
8	IS: 4130-1976	Safety code for demolition of building (First revision)
9	IS: 4912-1978	Safety requirements for floor and wall openings, railings and toe boards
		(First revision)
10	IS: 5916- 1970	Safety code for constructions involving use of hot bituminous materials
11	IS: 7205 -1974	Safety code for erection of structural steel work
12	IS: 7969 -1975	Safety code for handling and storage of building materials
13	IS: 8989 -1978	Safety code for erection of concrete framed structures
14	IS: 7293 -1974	Safety code for working with construction machinery
15	IS: 2212 -1991	Pipe lines –Identification –Colour code
16	IS: 5216 -1982	Recommendations on safety procedures &practices in Electrical works
		(Part -l &II)
17	IS: 875 -1964	Code of practice for structural safety of buildings and loading standards
18	IS: 10386 -1983	General aspects Part-1 -1983, Part-2 -1982, Part-6 -1983, Part-10 -1983-
		Amenities, Protective clothing and equipment, construction, storage,
		handling, detection and Safety measures for gases, chemicals and
		flammable liquids
19	IS: 10500-2012	Drinking water (Specification)
20	IS: 10291 -1982	Code of dress in civil engineering works
21	IS: 2925-1984	Safety helmets
22	IS: 1179-1967	Welding helmets
23	IS: 7524 -1979 (Part-I)	Safety goggles
24	IS: 9167 -1979	Ear muff /Ear plugs
25	IS: 6994 -1973 (Part-I)	Canvas hand gloves, Cotton hand gloves, Chrome leather gloves
26	IS: 4770 -1991	Rubber hand gloves tested for 15,000 volts
27	IS: 3521 -1999	Full body safety harness
28	IS: 11057 -1984	Specification for Industrial safety nets
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29	IS: 13415 -1992	Protective Barriers in & around buildings (Code of safety)	
30	IS: 13416 -1992	Preventive measures against Hazards at work places-Recommendations	
		part-I Falling materials hazards Prevention part-I	
31	IS: 13416 -1992	Preventive measures against Hazards at work places-Recommendations	
		part-II Fall Prevention	
32	IS: 15298 -2011	Personal Protective Equipment -Safety shoes	
	(Part 1&2)		
33	IS: 12254 -1993	Poly vinyl chloride (PVC) industrial boots	
34	IS: 5557:2004	Industrial and Protective Rubber knee and Ankle boots	
35	IS: 2878 -2004	Co2 Type fire extinguisher	
36	IS: 2171 -1999	Dry chemical powder fire extinguisher	
37	IS: 13849 – 1993	Fire extinguisher for ABC fires	
38	IS: 10204-2001	Mechanical Foam type extinguisher (Foam used shall conform to IS:	
		4989 -1974 and Co2 cartridge shall conform to IS: 4947 -1985)	
39	IS: 3786 -1983	Methods for computation of Frequency rate and Severity rates for	
		Industrial injuries and classification of Industrial accidents (First	

c. The Sub-contractors need to

- Attend HSE familiarization program at TBG-HQ with his site management team. This will
 be a half day long awareness session on HSE requirements and compliances which the
 agency is supposed to fulfil during contract execution at site. The session shall be taken
 by TBG HSE department on intimation by TBSM. (Rev-01)
- Request for issuance of Form-V in their name from customer on behalf of BHEL
- Get the Labour license registration from concerned Labour office.
- Get the BOCW Registration done along with the labour license.

revision)

- Get their labourers registered under BOCW for benefits provided by the office.
- Maintain Seven registers of labours as per BOCW requirement.
- Ensure payment of wages to labours not less than the current minimum wages applicable in the premises.
- Ensure PF deduction of labourers and submission of proof to BHEL office (Wage sheet, ECR & Challan copies) duly signed.
- Submit Labour Payment Certificate by 10th of Every month.
- File timely returns, get renewals done and submit a copy to BHEL office.



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- Get Workmen's Compensation policy before the start of work, covering all the labourers and staff,
 - Policy should clearly mention the project name and location,
 - o should be as per labour class and wage.
 - o Should cover all the height workers with clear mention of Max. height.
 - o Policy should be submitted to BHEL office and renewal before expiry.
- Issue employment card to every worker.

3. Labour Welfare and Medical Facilities

a. Labour Welfare

- 1. Declaration of normal working hours and weekly off day, Payment day & intervals
- 2. Paid rest days & holidays.
- 3. Payment of overtime @ twice the normal wage rate.
- 4. No labour shall be allowed overtime >12 hrs/week, limited to 48 hrs/month.
- 5. Rest and lunch area.
- 6. Separate Male/Female Toilets and Lavatories, clearly marked in local Language and provided with signage.
- 7. Cold and clean drinking water facility suitable to strength and near workplace
- 8. Creche for children of female workers as per BOCW requirements
- Arranging labour accommodation in hygienic environment with the facilities of Water (Drinking, Sanitation), washing and bathing area, toilets in sufficient nos., clean and safe camps and surrounding, access road, well illuminated camp and roads, mode of contact, transport facility, first aid centre, 24x7 Security etc.
- 10. Cooking and eating place to be maintained in hygienic condition
- 11. General awareness of health and hygiene.



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b. Medical facilities and Health centres

- Availability of first aid box at every work location and agency office, with contents as per BOCW requirement.
- Emergency vehicle (four-wheeler) at work place
- Availability of stretchers in emergency vehicle and in office.
- Trained first aider
- Medical check-up for all the supervisors and workers including cooks, at the time of induction and annually thereafter.
- Tetanus Vaccination for all in every six months.
- Identification and tie-up with nearby reputed hospital(s) and display of their contact number in Emergency contact list.

4. House Keeping & Storage

Housekeeping is a continuous process and is the part of work. Agencies shall maintain safe and presentable housekeeping all the time in their respective areas, common work locations and passage areas. Roads, passages, staircases, entrance/exit gates shall always be maintained obstruction free. No material shall be left or stacked at the roof edges. Agency shall make arrangements to remove scraps on regular basis and dispose them at a space provided by customer, clearly fenced and marked by the subcontractor as "SCRAP YARD". Suitable arrangement like dedicated housekeeping team and tractor/hydra should be identified for this work.

Construction materials like shuttering materials, staging materials, cables, re-bars, cements bags, earthing flats and rods, FF pipes, surplus soil etc should be stored/stacked properly such that it should neither pose threat to safety of man nor should obstruct the free movement of man and machineries.

Every sub-contractor should have separate and well-maintained storage area for his own materials, T&Ps, PPEs and BHEL issued materials. Consumables like diesel, cotton, grease, oil, paint, admixtures and other fire potential materials should be stored separately with suitable firefighting facility.

Fire capacity of store area to be assessed and accordingly fire extinguishers shall be planned suiting the class and capacity of fire. Sand heaps may also be stacked in open store yards suitably to use in case of fires.



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a. Induction and others safety trainings

Every sub-contractor shall make arrangement to provide induction training as per BHEL and/or customer requirement on a pre-approved and fixed module to all its new inductees irrespective of class or grade of appointment/hire. He shall also arrange the required facilities for induction training such as board, marker, dummy, posters/banners with all the mandatory PPEs.

Sub-contractor shall also arrange for periodic trainings on fire-fighting, first aid, CPR, importance and use of PPEs, electrical safety, hot work safety, Height work safety, confined space, deep excavations and barricading, concreting work safety etc.

b. Appointment of Safety Officer/Supervisor

Every sub-contractor shall appoint full time **safety officer(s)** as per **Schedule VIII** of **BOCW Act-1996**. The safety officer so appointed, shall not be assigned any duty/work other than assisting in fulfilment of legal and contractual obligations at site. He shall perform his duties in line to meet the requirements of TBG HSE MANAGEMENT SYSTEMS, such as ensuring daily TBT, conducting induction and other HSE training and awareness programs, organising HSE campaigns, health check-ups, periodic mock drills, reporting & record keeping and other such compliances as per **HSE Plan for Site Operation (TBG/HSEP-14)** on regular basis. **(Rev-01)**, **(Rev-02)**

c. Safety organisation, Safety committees and meetings

Safety officer shall report directly to the head of the projects of the sub-contractor management. There shall be some appointed or nominated **safety stewards** from each sub-group like shuttering, bar-bending, concreting, brick work, material handling, structure erection, cable laying, pipe work, maintenance, batching plant, housekeeping, etc.

A **safety committee** shall be formed including members from different agencies, BHEL and customer covering at-least 50% participation from workers. Safety committee shall meet on weekly basis or as may be decided by customer, outcomes shall be complied as committed.

d. Personal Protective Equipment.

Unless mentioned otherwise, there will be three mandatory PPEs- Safety shoes, Safety Helmet and Reflective jackets conforming to relevant IS codes as mentioned above. Every person entering in the project premises shall use above mandatory PPEs.

There will be other PPEs too, based on the work requirement like: Twin lanyard full body harness, fall arresters and life lines for height workers, Face shield for welders and grinders, Induction helmets and Electrical resistant shoes with FRP/PVC toe for electricians and commissioning engineers, Gum boots for concrete workers and manual excavators, Goggle for gas cutters and grinders, Aprons for welders, shoulder pads for material handlers, Hand gloves — Leather for binders/welders/grinders, certified Rubber gloves for electricians, PVC for concrete/cement

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handlers, cotton-housekeeping team/brick coolies/erectors, cable laying men and other material handlers. Dust mask for cement handlers.

e. Material Handling

BHEL as a policy discourages continuous manual handling. Material handling contributes a major portion in the project and hence proper means (mechanical/ electrical powered) should be deployed appropriately for this work. Cranes/Faranas/hydras should not be used for material transportation for long distances(>100m), if such movement is un-avoidable, it must be accompanied by a trained signal man. Long materials should be guided by tagline. Roads for material movement should be free from obstructions. Lifting appliances must be in good condition and must have test/inspection certificates.

Lifting tackles like- D-shackles, chains, ropes, slings, belts shall be periodically inspected and shall have valid test certificate and/or third-party inspection certificates.

Painted/galvanized structures/materials to be lifted by adequate capacity nylon belts only.

If a machine undergoes a major maintenance, fresh TPI shall be required before use. Hydraulic/pneumatic machines shall be free from leakages. Daily checklist to be filled and witnessed by the concerned supervisor before start of the work.

f. Vehicle/Machinery Documents and other safety requirements

- Crawler mounted boom cranes/Tyre mounted telescopic cranes/tower cranes
 - 1. Valid third-party inspection certificate.
 - 2. Valid Insurance policy
 - 3. Registration Certificate (if applicable)
 - 4. Valid Pollution under control (PUC) (if applicable)
 - 5. Fitness certificate from RTO (if applicable)
 - 6. Operator's valid license, experience and/or competence certificate.
 - 7. Swing horn
 - 8. Reverse horn
 - 9. Boom aviation light
 - 10. Approved Load chart (inside cabin)
 - 11. Fire extinguisher (inside cabin)
 - 12. First aid kit (inside cabin)
 - 13. Boom angle indicator
 - 14. Hook Latch
 - 15. Reflector strips on around cabin and on boom
- Loader backhoe (JCB), crawler excavators (Poclain), Hydra,
 - 1. Valid third-party inspection certificate.
 - 2. Valid Insurance policy
 - 3. Registration Certificate (if applicable)
 - 4. Valid Pollution under control (PUC) (if applicable)



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- 5. Fitness certificate from RTO (if applicable)
- 6. Operator's valid commercial license, experience and/or competence certificate.
- 7. Reverse horn
- 8. Approved Load chart (inside cabin) (Hydra)
- 9. Fire extinguisher (inside cabin)
- 10. First aid kit (inside cabin)
- 11. Hook Latch (Hydra)
- 12. Reflector strips on around cabin and on boom
- Tipper, Transit mixtures (TM), Self-loading concrete mixture (Ajax Fiori), Tractors
 - 1. Valid third-party inspection certificate.
 - 2. Valid Insurance policy
 - 3. Registration Certificate
 - 4. Valid Pollution under control (PUC)
 - 5. Fitness certificate from RTO
 - 6. Operator's valid commercial Heavy license, experience and/or competence certificate.
 - 7. Reverse horn
 - 8. Fire extinguisher (inside cabin)
 - 9. First aid kit (inside cabin)
 - 10. Reflector strips on around cabin and on body

Note: 1. Tractors may be allowed with Light Commercial/non-commercial license on customer's consent.

- Cars, Taxis, scooters, motor cycles and other public carriers
 - Valid 2/4-wheeler license (as applicable- commercial/non-commercial)
 - o Registration Challan
 - Valid Insurance
 - o Pollution under control

g. Man-lifts (Cherry pickers), Scissors Lifts

- 1. Trained operator with experience/competence certificate and license
- 2. Valid third-party inspection certificate.
- 3. Valid Insurance policy
- 4. Registration Certificate (if applicable)
- 5. Valid Pollution under control (PUC) (if applicable)
- 6. Swing horn
- 7. Reverse horn
- 8. Boom aviation light
- 9. Fire extinguisher (inside cabin)
- 10. First aid kit (inside cabin)
- 11. Reflector strips on around cabin and on boom



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Note:

- 1. No one shall ride man-lift bucket without safety belt, safety shoes, helmet and reflective jacket.
- 2. Not more than 3 persons at a time will board in bucket of man-lift (without any heavy materials) including operator.
- 3. Operator will not leave the machine while persons are elevated and working.
- 4. No one other than the authorised operator will operate the man lifts/Scissors lifts.

h. Excavation

Prior permission/clearance from customer is a must for excavations in areas where underground service services such as gas/water/oil/chemical/electrical lines may be routed. Due precautions shall be taken during excavation in such area. Excavations near water bodies (ponds/canals etc.) shall be done with sand/soil bags ready to plug water from accidental damaged/burst of edges. All the excavations shall be done by either step cutting (min. 600mm step at every 1.5m depth) or slope cutting at 1:2(X:Y axis) (or greater depending upon the soil condition). Where step cutting/slope cutting is not possible due to space constraints, shoring/shuttering or sheet piling to be used to check collapse of soil.

Excavated soil shall be stacked away from edge of the pit, at-least 1.5 meters or half of the depth whichever is higher. Height of the stack shall not exceed 2m in height.

Ramps shall be provided for access of the workers in large pits and ladder of metal/good built for small pits. Ladders shall be of sufficient length protruding at least 1m above the ground level.

Pumps of adequate capacity shall be available for pumping out of water. No lone worker shall be allowed to work in any excavation. Overloaded vehicle shall not be allowed near excavated pits.

Bar bending and Binding

Bar bending machine shall be installed under shed/roof. It shall be properly earthed and maintained for operation. Housekeeping of the area shall be team's responsibility on daily basis. All be bar benders shall be given hand gloves (leather/cotton) in addition to mandatory PPEs. Scrap shall be segregated and moved to scrap yard on regular basis. Bar bending station shall be located away from Main plying roads/passages. The station shall be well illuminated, shall have a maintained first aid kit and potable water. Station shall be located in such a way that the movement of the material be minimised.

j. Concreting

No electric vibrators shall be allowed to use. All the concrete workers shall be issued gum boots, safety helmets, reflective jackets and PVC hand gloves. Free fall of concrete from chute shall not exceed 1m in height. Heavy machineries/ vehicles shall be kept at least 2m away from the edge. Emergency vehicle shall be available near concreting work. Late night works shall be avoided, if it is unavoidable, a prior permission from BHEL/Customer is mandatory.



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k. Welding, Gas Cutting & other hot works

Welding: Only experienced welders should be deployed for welding jobs. Welders shall be provided with apron, hand gloves, arm pads, leg pads, face shield and safety shoes. Welding leads shall be joint less and insulated. Power input point shall be fully covered at machine.

Gas cutting: If LPG is being used, domestic cylinder is strictly prohibited inside the project premises, (not allowed for site kitchen too). Hose pipes shall be in good condition without cracks, cuts, punctures or joints. Ends should be clamped with worm clamps. Dial gauges shall be of good quality and duly calibrated. Flash back arresters is a must for both oxygen/acetylene or LPG/Oxygen combination. Cylinders shall be stored, transported and used in vertical position only. When not in use, they shall be capped. Empty and filled cylinders to be stored separately with distinct marking.

Cylinders shall neither be rolled on the ground nor thrown during loading/unloading.

Grinding: Grinder shall be given clear glass face shield, apron, safety shoes, ear muffs and hand gloves. Grinder machines shall have wheel guard. Plug tops to be used for power connection preferably three wire type. Only trained persons shall be allowed to use grinders, abrasive cutters. Electrical connection shall be free from cuts, joints etc.

I. Erection & Height Work

Only trained filters and experienced helpers shall be engaged in erection work. Step bolts of lattice towers shall be checked for full tightness with spring washers before use. Height pass shall be issued to the identified group of erectors who have passed medical test and have working experience at height. Name of such workers shall be displayed at appropriate place. These workers only shall be allowed to work at height. Height work shall not be permitted in high wind/bad weather condition, during raining or in night/dark.

m. Electrical Safety

BHEL usually provided single point power source and sub-contractors draw power from there. Otherwise agencies make their own arrangement for construction power like DG sets etc. Sub-contractors shall submit their load requirement (amperage & phase) to BHEL before start of work. Accordingly, they shall make arrangements to draw power and distribution arrangements too in a safe way. MCCBs and HRC fuses to be put in circuit for short circuit and overload protections and RCCBs of 30mA sensitivity to be put at each distribution panel for human safety. Earthing pits shall be installed at each distribution point and maintained below three Ohm resistivity which shall be inspected randomly. The distribution points shall be clean, free from vegetation and water logging, easily accessible and covered/protected from three sides and top for rain. Earthing of DBs shall be done by 25x3mm GI flats connected from proper earth pits. Insulation mat, PVC Sheet/Wooden plank to be placed before DBs as platform. DB Sheds shall be legibly marked with name of agency, contact no of electrician and SLD of that DB. Only industrial plugs and sockets shall be allowed. Three wire (Phase, neutral and earth) system shall be used for tools, lights and machineries and two wire power draws shall be strictly prohibited. PTW and LOTO system shall be maintained to work on LT system. Name and contact no of authorised electricians who will be responsible of electrical power facility maintenance shall be submitted to BHEL by Agencies. Unauthorised sharing of power from one agency to other is strictly prohibited. Electricians shall use standard PPEs and insulated



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tools only. Standard and tested/certified discharge rods to be used in the areas where there is a possibility of residual current or induction charge. The induction rod to be connected to the earth first and removed in the last. Induction helmets only to be used in the charged area. Electricians to be provided with electrical resistant safety shoes having FRP/PVC toe.

n. Dust Gases and fumes

Sub-contractor shall make arrangements to avoid accumulation of dust fumes and gases. Cement handlers inside store or at batching plant and gravel spreader shall be given effective nose masks and jaggery (at least 200g per person per day). DG sets and other machineries like cranes excavators etc. shall have valid and effective PUC certificate and shall have maintained engine with silencer. No IC engine operated machine shall be used in confined and covered area like hall, sheds, store etc. where accumulation due to lack of ventilation can increase to harmful levels. Dedicated arrangements (tanker or tractor with sprinkler) shall be made by the sub-contractors (individual or jointly) to continuously subside the dusts arising out of the movement of the vehicle's roads/passages. Welding activities near roof accumulates harmful gases. Welders in such positions shall be provided with effective masks conforming to IS standards.

o. Vehicular Traffic

Speed limits defined within the premises shall strictly be followed by the drivers/commuters of construction as well as other vehicles.

Every construction machinery, man-lift shall display the name, contact no and passport size photograph of the authorised operator (There can be one or more authorised operators).

No one other than operator and co-operator shall sit inside the cabin of any construction machine while it is working.

Construction machineries (tractor, trucks, tippers, JCBs, hydra, Fassi cranes etc. shall never be used as mode of public transport. Machineries like Ajax Fiori and hydra shall not be driven in back direction except for small distances. No overloaded vehicle shall be permitted entry in the project premises.

Over speeding shall be reported and driver/operator shall be barred from entry or shall be penalised.

Drunken drivers shall be barred from entry in the project.

Carrying harmful weapons like knives (>6"), guns etc. shall permanently disqualify the person from entry in project premises.

p. Barricading and floor openings

Every pit deeper than 4 feet (1.2m) shall be barricaded immediately after excavation and will remain barricaded till backfilling.

Pits/trenches drains near roads, passages whether temporary or permanent shall be hard barricaded and well illuminated. Roof edges and openings shall be strictly hard barricaded and illuminated. Height works like masonry works, structure erection, erection by cranes, Lattice tower/beam erection areas shall be barricaded to restrict entry. Areas under charging/commissioning shall be barricaded and caution boards shall be displayed on newly charged areas.



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q. Scaffold & Ladder

No bamboo/wooden scaffold shall be allowed to be used. Only tubular steel scaffolds with couplers conforming to the relevant IS codes shall be allowed with base plates. Standard steel or wooden planks to be used as platforms and no packing materials shall be used. All the platforms shall be built with provisions of top rail at 1m height, mid rail at 0.5m height and toe boards of min 6" height at floor level. Minimum width of platform shall be 900mm and if wheel barrow is to be used then 1200mm. Means of access to be provided in the form of ladders, ramps or staircase. Multilevel work platforms or those platforms having passage underneath shall be provided with safety net, screen or canopy at each level for protection from falling objects. Platforms shall be free from concrete, debris or other materials. Platforms shall not extend out of the putlogs and shall be secured and fastened. Decking shall be made non-skidding.

Scaffolds under erection shall be tagged "RED", under repair/maintenance/inspection shall be tagged "YELLOW" and ready for use shall be tagged "GREEN"

Only metal ladders in the construction site and FRP ladders in charged areas shall be allowed. Ladders made from packing materials shall not be used. Ladders shall be securely fixed at bottom, top and long ladders at middle points too at an interval not more than 2400mm and must have a landing at every 6m. Inclination angle should be approximately 1:4 (X:Y) or 75deg. Ladder must extend at least 1m above the platform/access area. Gap between two rungs shall not exceed 300mm. Portable ladder should not be more than 4m in length. Minimum width of the ladder shall not be less than 300mm.

Use of Mobile aluminium scaffold is preferably advisable for erection of transformers/reactors.

r. Illumination

The sub-contractor shall ensure that the areas such as work stations, buildings, batching plants, passages/roads, stores, rest areas, power sources, staircases etc. are illuminated sufficiently to make safe work conditions at site and shall not be less than the relevant IS standards. Excavations/ below ground level structures near passages/roads shall also be sufficiently illuminated.

s. Safety banners/posters, caution boards

Sub-contractors shall display boards and banners in sufficient quantity having safety signs, slogans, important messages, pictures, cautions at prominent locations to promote safety and spread awareness for important precautions such as "Deep Excavation Ahead", Speed Limit", "Charged Area", "Do not operate", "Hard hat area", "No smoking Zone" etc. Boards containing messages of Emergency contacts, First aid facility, rates of minimum wages, working hours, rest day etc. should be displayed at specific areas.

t. Waste management and disposal

Sub-contractor shall make suitable and effective arrangement to remove waste material from site on regular basis and store them in an identified and safe location. Disposal of wastes shall also be done as per manufacturer's instructions or as per the guidelines laid by legal authorities. Re-bars, Cement bags, packing material (wooden/metal/plastic/paper), paint, oil, grease, cables (armour, sheathing, insulation),



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civil debris, metal chips, GI sheet scraps, batteries etc. are the common waste materials. Sub-contractor shall arrange disposal of the hazardous wastes/materials in conformance to the legal and contractual

u. Inspection of PPEs, T&Ps, Machineries and lifting appliances

All the PPEs, T&P and lifting appliances purchased newly by sub-contractors shall have test certificates which shall be submitted to BHEL office periodically or on demand. There shall be at least monthly joint inspection schedule for inspection of healthiness of all the PPEs, T&Ps and lifting appliances. All the lifting appliances shall be tested and examined by a competent person before taking into use for the first time or after it has undergone any alterations or repairs liable to affect its strength or stability

and also once at least in every twelve months. To confirm quality of the PPEs as per the relevant IS codes, BHEL may ask sub-contractors to get any or all types of PPEs tested through NABL approved lab as per relevant IS codes. At any stage, the 100% cost of such tests shall be in the scope of respective sub-contractors.

v. Cable Laying

Sub-contractor shall ensure cable trenches free from water, mud, debris, snakes, Scorpios, lizards before start of the work in trenches. Cable drum rollers shall be used to pull cables out of drums to avoid twisting of cables. Hand gloves, Safety shoes/gum boots, reflective jackets, safety helmets shall be provided to the workers. Cable laying area shall be well illuminated.

w. Fire Protection

Every sub-contractor has to maintain their working area, store and office area free from bushes. Stacking of flammable materials like wood, paper, plastic, paint, oil, grease, fuel, cotton, gases etc. at isolated place disconnected from other storage and office areas. Adequate arrangements of firefighting means like suitable extinguishers, fire/water buckets, water tanks, sand dunes etc. shall be made by the agency depending upon the fire capacity assessed or as per MSDS. Fire drills and trainings on how to operate fire extinguishers and how to react in case of fire breakouts shall be the part of regular training program. Guards and store persons must be a regular participant of such training programs. A list of trained firefighting persons and periodicity of such training programs shall be submitted to BHEL by every agency and same to be adhered. Sufficient number of fire extinguishers with suitable class shall be placed at such locations where there can be fire hazard like stores, pantry, office, DG set, electrical distribution panels etc.

x. Fencing of exposed rotating parts

Exposed rotating parts poses great threat to the person in vicinity. Such parts need to be fenced/covered. Guards are mandatory of grinders, abrasive cutters. Flywheels of the engines of heavy machines, Diesel engines, DG sets need to be covered. Electric winch machines, pulleys, chains, shafts, exhaust fans at reachable height, table fans, need to be caged/fenced. Such fencing/guard shall not be removed while machinery is in operation.



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y. Emergency preparedness response plan and periodic mock drills.

Sub-contractor shall comply JSA (Job Safety Analysis) and arrange to mitigate the effects of identified possible hazards. He shall also define following in response to emergency preparedness:

An emergency assembly point and put a board of the same with information to all in induction training. Have facility of ambulance or tie-up with nearest hospital for service in minimum possible time (Max-30min) if there is not ambulance inside the premises.

Ensure availability of emergency vehicle with driver all the time at site during work.

Conduct mock-drills on possible risks like electrocution, fall from height, fire, heat stroke etc., record responses and take photographs to submit in BHEL office. Stretchers availability in emergency vehicle or at work place should be well accessible. Provide fire extinguishers of right type at right place in right quantity with information to all. Display emergency contact nos. to various risk locations and at office, service building or at major work locations. Provide first aid training by doctors for and display names of such trained first aiders and fire fighters. Rescue kit with trained staff or man lift or both to rescue a man hanging by safety belt at height. Provide running water tap near chemical storage and handling points. Agencies shall follow emergency response plan prepared by BHEL in each area of work, store and office.

z. Safety reports & Reporting of accidents

BHEL will provide "formats and checklists" for the purpose of records/documents pertaining to the compliance of aforesaid clauses. Agencies shall be responsible for strict adherence and compliance for timely generation and fill-up of the checklists and reports. These shall be submitted on weekly and monthly basis as specified in the formats.

Agency shall also promote such an environment that the near misses, incidents and accidents are reported by every person, whosoever witnesses them. These shall help in analysing the trend and taking measures in reducing/stopping the accidents/incidents. Initial reporting can be in any form-by call, SMS, WhatsApp, e-mail, letter etc.

Major and fatal accidents or high potential incidents shall be investigated for route cause and outcomes shall be immediately implemented to check recurrences.

6. General conditions and penalty clauses

Following are the general conditions:

PPEs shall not only bear the ISI mark but also be conforming to the required standards, 100% compliance of the PPEs is mandatory.

Over speeding of vehicles shall attract penalty/notice and recurrence will attract debarring from entry into project premises.

Hiding of facts like incidents, accidents, fake/forged reports/certificates shall also attract penalty/ notice or both. Only approved third party agencies shall be allowed to inspect the machines, T&Ps. Reports shall directly be sent to BHEL/customers by the third parties.



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Insurance and TPIs to be renewed before expiry. Machines, T&Ps shall not be allowed to work if renewal delayed. Continuity of WC policy to be maintained religiously by the respective agencies.

Agency shall submit the status report of his labour license, BOCW registration, WC Policy, insurance & TPI validity on monthly basis with list of machineries and T&Ps

Sub-contractors shall also maintain a buffer stock of all the PPEs in at least 20% excess to the present strength of the work force.

If construction power is not drawn as per the guidelines laid in clause no. 5(m), given above, BHEL may take-up this work at the risk and cost of the agency and/or may withhold a sum of min. Rs. 50,000/- (Rs. Fifty Thousand) or more as the site in-charge deems fit till the system is aligned as per aforesaid requirement.

Agencies shall be responsible for the compliance of the above requirements. Failure in one or more clauses/area shall attract a notice or monitory penalty or a combination of above.

Monitory penalty will be

- Rs. 1000/- per person/incident per day for non-conformity in above areas.
- A Major/severe accident shall attract a penalty of Rs. 2,00,000/- per head
- Fatality or permanent disability with total loss of earning capacity, if any, will attract a penalty of Rs. 5,00,000/- (Rs. Five Lakh).
- Further fatality/permanent disability shall attract double the last penalty imposed on the agency.
- Above penalties are exclusive of medical expenses of the victim or compensation to the family through insurance policy (WC Policy or group insurance).
- Penalties imposed by customer shall be fully transferable to the sub-contractor. In the event of above cases, penalties shall be imposed whichever will be higher.
- Evaluation of agency's performance on HSE compliance shall be done as per BHEL guide lines/system.



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Revision History

Revision Date	Revision No.	Old Text	New Text	Reason	Revised by (with sign)
03.05.2019	00	N/A	Full Document	New Release	
12.10.2021	01	Nil	Attend HSE familiarization program at TBG-HQ with his site management team. This will be a half day long awareness session on HSE requirements and compliances which the agency is supposed to fulfil during contract execution at site. The session shall be taken by TBG HSE department on intimation by TBSM. (at page no. 5)	understanding of HSE requirements to agency. (HSE Review meeting dated	
12.10.2021	01	Edition	1	Introduction of HSEP-14	
17.01.2024	02	Edition		As per BOCW 1996	

-:End of Document:-



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TERMS & CONDITIONS OF CONTRACT

The following terms and conditions shall form a part of the tender document.

1.0 GENERAL INSTRUCTION

- 1.1 All pages of the tender documents shall be duly signed, stamped and submitted along with the offer in token of complete acceptance thereof. The information furnished shall be complete by itself. The tenderer is required to furnish all the details and other documents as required in the following pages.
- 1.2. Tenderers are advised to study all the tender documents carefully. Any submission of tender by the tenderer shall be deemed to have been done after careful study and examination of the tender documents and with the full understanding of the implications thereof. Should the tenderers have any doubt about the meaning of any portion of the Tender Specification or find discrepancies or omissions in the drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, the scope of work etc., tenderer shall at once, contact the authority inviting the tender well in time (so as not to affect last date of submission) for clarification before the submission of the tender. Tenderer's request for clarifications shall be with reference to Sections and Clause numbers given in the tender documents. The specifications and terms and conditions shall be deemed to have been accepted by the tenderer in his offer. Non-compliance with any of the requirements and instructions of the tender enquiry may result in the rejection of the tender.

2.0 PROCEDURE FOR SUBMISSION OF SEALED TENDERS

- 2.1 Bidders may please refer Cl no. 02 to Cl no. 03 of the Notice inviting tender.
- 2.2 The tenders received after the specified time of their submission shall be treated as 'Late Tenders' and shall not be considered under any circumstances.
- 2.3 Tenders shall be opened by the officers concerned of BHEL at the time, date and venue as specified in the tender enquiry. Tenderer or their authorized representative may witness the bid opening.
- 2.4 The tenderer shall closely pursue all the clauses, specifications and drawings indicated in the Tender Documents before quoting. Should the tenderer have any doubt about the meaning of any portion of the Tender Specifications or find discrepancies/omission in the drawings or the tender documents issued are incomplete or shall require clarification on any of the technical aspect, scope of work etc. he shall at once contact the authority inviting the tender for clarification before the submission of the tender.
- 2.5 Before submission of offer, the tenderer are advised to inspect the work & the environments and be well acquainted with the actual working and other prevalent conditions, facilities available, sourcing of material and labour, means of transport and access to site, accommodation, etc. No claim will be entertained later on the grounds of lack of knowledge on any of these conditions/ resources.

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- 2.6 Tenderer must fill up all the schedules and furnish all the required information as per the instructions given in various sections of the tender specification. Each and every page of the Tender Specification must be SIGNED AND SUBMITTED ALONG WITH THE OFFER by the Tenderer in token of complete acceptance thereof the information furnished shall be complete by itself.
- 2.7 The tenderer shall quote the rates in English Language and international numerals. Total price offered should be entered in figures as well as in words. For the purpose of the tender, the metric system of units shall be used.
- The tenderer shall quote a percentage above/ below/At Par the rates shown in the "Percentage BOQ/Price Schedule/Price bid" of subject tender.
- 2.9 The quoted percentage will apply to all the individual items of "Annexure-I i.e Bill of Quantity Cum Price Schedule" uniformly.
- 2.10 All entries in the tender shall either be typed or be written legibly in ink. Erasing and overwriting are not permitted and may render such tender liable for rejection. All cancellations and insertions shall be duly attested by the tenderer.
- 2.11 The tenderer must provide the registered e-mail of their registered office along with the addresses and authorized phone/mobile nos.
- 3.0 ADJUSTMENT PRICE DISCREPANCY (IES): Not Applicable being e procurement.

4.0 **EVALUATION OF TECHNICAL BIDS**

- 4.1 Technical Bids submitted by the tenderer will be opened first and evaluated for fulfilling the Pre-Qualification criteria and other conditions in NIT/Tender documents, based on documentary evidences submitted along with the offer.
- 4.2 In case the same qualifying experience is claimed by more than one bidder due to subletting of work by main contractor to subcontractor (s) then following conditions shall be applicable.
 - a) For labour + consumable contract without material and T&P:
 Benefit of work experience shall be given to the subcontractor who has actually executed job and not to the contractor offloaded down the line.
 - b) For contract with complete scope i.e. with materials, T&P, labour and consumable:
 - i) Benefit of work experience shall be given to the subcontractor who has actually executed job and not to the contractor offloaded down the line.
 - ii) If the contractor offloads the labour and/or T&P portion only, Benefit of work experience shall be given to the main contractor and not to the subcontractor who has executed only as labour supply contractor

The bidders qualification shall be subject to submission of documentary proof. BHEL reserves the right to ask for further proofs including submission of TDS certificates/ for the said job.

4.3 In case the qualifying experience is claimed by private organizations based on Work Order and completion certificates from another private organization, BHEL reserves the right to ask for further proofs including submission of TDS certificates/ form 26AS /bills for the said job.



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4.4 Credentials of all the bidders participating in open tender will be scrutinized thoroughly by the nominated committee w.r.t. the pre-qualifying requirement for the tender.

- Details of qualifying work(s) executed by the bidder will be forwarded to the principle employer for verification of the work with respect to completion, commencement & completion date, scope and value of the work executed. Performance feedback of the bidder will also be sought from the principle employer.
- 4.6 BHEL may conduct onsite verification of at least one of the qualifying work to verify completion of the work and evaluate capability and performance of the bidder.
- 4.7 The bidder representative may be called for the discussion with the committee. His originals may be verified by the committee. In addition to above their organization chart and detailed list of manpower, tools & plants and technical capability may be discussed and ascertained by the committee.

5.0 **EVALUATION OF PRICE BIDS**

- 5.1 Price Bids of unqualified bidders shall not be opened.
- 5.2 The offers will be evaluated on the basis of total price basis (refer "BILL OF QUANTITY AND PRICE SCHEDULE) as shown in the price bid.
- 5.3 Reasons for rejection of the bid shall be intimated in due course after issue of LOI/LOA to successful bidder and receipt of unconditional acceptance of LOI /LOA from the successful bidder
- 5.4 In case of electronic Reverse Auction, the unqualified bidders shall not be allowed to participate in reverse auction.

6.0 DOCUMENTS TO BE ENCLOSED:

Full information shall be given by the tenderer in respect of the following.

- 6.1 Tenders shall be signed by persons duly authorized/empowered to do so. An attested copy of the Power of Attorney to be submitted in all cases except where the sole proprietor is the signatory to the tender documents
- 6.2 PERMANENT ACCOUNT NUMBER:
 - Certified copies of Permanent Account Numbers as allotted by Income Tax Department for the Company / Firm / Individual Partners, etc. shall be furnished along with tender.
- 6.3 <u>AUDITED BALANCE SHEET AND INCOME TAX RETURN:</u>

Copy of Audited Balance sheets and income tax return for last Five financial years (financial years as specified in PQR)

- 6.4 *SOLVENCY CERTIFICATE:*
 - If asked in NIT, bidder should submit solvency certificate (not older than 12 months from date of tender notification) issued by any scheduled bank.
- 6.5 DOCUMENT RELATED TO INCORPORATION OF BUSINESS ENTITY:
- 6.5.1 IN CASE OF INDIVIDUALTENDERER:

His/her full name, address and place & nature of business.



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6.5.2 IN CASE OF PARTNERSHIP FIRMS:

The names of all the partners with address. A copy of the partnership deed/instrument of partnership duly certified by the Notary shall be enclosed.

6.5.3 IN CASE OF COMPANIES:

Date & place of registration including date of commencement certificate in case of Public Companies and the nature of business carried on by the company. Certified copies of Memorandum and Articles of Association are also to be furnished.

- 6.6 Offer forwarding letter over the letterhead
- 6.7 Declaration sheets (As per Prescribed format) over the letter head
- 6.8 No Deviation certificates (As per Prescribed format) over the letterhead
- 6.9 GST Registration certificate

All the data required to be enclosed with the tender need to be furnished neatly typed, signed & stamped in the given formats only (in the form of separate sheets) failing which the tender may be considered as incomplete and is liable for rejection. Documentary proof wherever necessary also need to be enclosed.

7.0 REJECTION OF TENDER & OTHER CONDITIONS:

- 7.1 The decision of acceptance of tender will rest with BHEL which does not bind itself to accept the lowest tender or any tender and reserves to itself full rights for the following without assigning any reasons whatsoever:
 - (a) To reject any or all of the tenders.
 - (b) To split up the work amongst two or more Tenderer as per NIT
 - (c) To award the work in part as per NIT
 - (d) In either of the contingencies stated in (b) and (c) above to modify the time for completion suitably.
- 7.2 Conditional tenders, unsolicited tenders, containing abnormally low/ unworkable rates & amounts, tenders which are incomplete or not in the form specified or defective or have been materially altered or not in accordance with the tender conditions, specifications etc. are liable to be rejected.
- 7.3 Tenders are liable to be rejected in case of unsatisfactory performance of the tenderer with BHEL, or tenderer under suspension (hold / banning / delisted) by any unit / region / division of BHEL or tenderers who do not comply with the latest guidelines of Ministry / Commissions of Govt. of India. BHEL reserves the right to reject a bidder in case it is observed that they are overloaded and may not be in a position to execute this job as per the required schedule in line with 'NIT'. The decision of BHEL will be final in this regard.
- 7.4 In case of any adverse information is received concerning performance, capability or conduct of the tenderer after issue of tender enquiry or opening of tender or award of work, BHEL reserves the right to reject the offer at any stage as deemed fit.
- 7.5 Offers with inadequate Tools & Plants, Manpower Deployment Plan, and Method Statement are liable for rejection.

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- 7.6 If a tenderer who is a proprietor expires after the submission of his tender or after the acceptance of his tender, BHEL may at its discretion, cancel such tender. If a partner of a firm expires after the submission of the tender or after the acceptance of the tender, BHEL may cancel such tender at its discretion unless the firm retains its character.
- 7.7 BHEL will not be bound by any Power of Attorney granted by the tenderer or by changes in the composition of the firm made subsequent to the execution of the contract. BHEL may, however, recognize such Power of Attorney and changes after obtaining proper legal advice, the cost of which will be chargeable to the contractor concerned.
- 7.8 If the tenderer deliberately gives wrong information in his tender, BHEL reserves the right to reject such tender at any stage or to cancel the contract, if awarded, and forfeit the Earnest Money/Security Deposit/any other moneys due.
- 7.9 Canvassing in any form in connection with the tender is strictly prohibited and the tenders submitted by the tenderer who resorts to canvassing are liable to be rejected.
- 7.10 In case the Proprietor, Partner or Director of the Company / Firm submitting the Tender, has any relative or relation employed in BHEL, the authority inviting tender shall be informed to the fact as per specified format along with the offer, failing this, BHEL may, at its sole discretion reject the tender or cancel the contract and forfeit the Earnest Money/ Security Deposit.
- 7.11 The successful tenderer should not sub-contract the part or complete work detailed in the tender specifications without written permission of BHEL's Site In charge/ Sector Head. For this the contractor shall submit request application to site in charge supported by credentials (financial and technical) and resource mobilization schedule of such sub-contractor. Such request are to be considered in consultation with end user/ultimate customer (if applicable) and subject to satisfactory credentials, fund flow arrangement between them, HSE and other contractual and statutory obligations. The tenderer is solely responsible to BHEL for the work awarded to him.
- 7.12 The Tender submitted by a tenderer shall become the property of BHEL who shall be under no obligation to return the same to the bidder. However unopened price bids and late tenders shall be returned to the bidders.
- 7.13 unsolicited discount received after the due date and time of Bid Submission shall not be considered for evaluation. However, if the party who has submitted the unsolicited discount/rebate becomes the L-I party, then the awarded price i.e contract value shall be worked out after considering the discount so offered.
- 7.14 BHEL shall not be liable for any expenses incurred by the bidder in the preparation of the tender irrespective of whether the tender is accepted or not.

8.0 NO DEVIATIONS ARE ACCEPTABLE: -

Offers with deviations are likely to be rejected. However, if the bidder insists on any technical or commercial deviations from the specifications and / or tender conditions, the price implication, if any, of withdrawing the deviations must be submitted along with the price bid in a separate sealed envelope super-scribed "PRICE IMPLICATION"



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FOR WITHDRAWAL OF DEVIATIONS". No price implication for withdrawal of deviation shall be accepted at a later date, after opening of technical bid.

9.0 Consortium/JV bidding is not allowed under this NIT.

10.0 EARNEST MONEY DEPOSIT

Not applicable for this tender.

11.0 SECURITY DEPOSIT

Security Deposit means the security provided by the Contractor towards fulfilment of any obligations in terms of the provision of the contract.

Upon acceptance of Tender, the successful Tenderer should deposit the required amount of Security Deposit for satisfactory completion of work. **The total amount of Security Deposit will be 5% of the Contract Value.** EMD of the successful tenderer shall be converted and adjusted towards the required amount of Security Deposit.

11.1 Mode of Security deposit:

The security Deposit should be furnished before start of the work by the contractor.

"Bidders agrees to submit performance security required for execution of the contract within the time period mentioned. In case of delay in submission of Performance security, enhanced performance security which would include interest (Repo rate + 4%) for the delayed period, shall be submitted by the bidder.

Further, if performance security is not submitted till such time the first bill becomes due, the amount of performance security due shall be recovered as per terms defined in NIT / Contract, from the bills along with due interest".

The balance amount to make up the required Security Deposit of 5% of the contract Value may be furnished in any of the following forms:

- i) Cash (as permissible under the extant Income Tax Act)
- ii) Local cheques of scheduled banks (subject to realization) / Pay Order / Demand Draft / Electronic Fund Transfer, in favour of BHEL.
- iii) Bank Guarantee from Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The Bank Guarantee format for Security Deposit shall be in the prescribed formats enclosed with general conditions of contract.
- iv) Fixed Deposit Receipt issued by Scheduled Banks / Public Financial Institutions as defined in the Companies Act. The FDR should be in the name of the contractor, A/C BHEL and duly discharged on the back.
- v) Securities available from Indian Post Offices such as National Savings Certificates, Kisan Vikas Patras etc. (Certificates should be held in the name of Contractor



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furnishing the security and duly endorsed/hypothecated/pledged, as applicable, in favour of BHEL and duly discharged on the back).

vi) Insurance Surety Bonds

(NOTE: BHEL will not be liable or responsible in any manner for the collection of interest or renewal of the documents or in any other matter connected therewith)

11.2 Submission of Security Deposit:

- i) At least 50 % of the required Security Deposit, shall be submitted before start of work. Balance of the Security Deposit can be submitted by way of deduction of 10% of the gross amount progressively from each running bills of the contractor till the total amount of the required Security Deposit is collected.
- ii) In case of delay in submission of performance security, enhanced performance security which would include interest (Repo rate + 4%) for the delayed period, shall be submitted by the bidder.
- iii) If the value of work done at any time exceeds the contract value, the amount of Security Deposit shall be correspondingly enhanced and the additional Security Deposit shall be immediately deposited by the Contractor or it shall be recovered from payment/s due to the Contractor.
- iv) The recoveries made from running bills (cash deduction towards balance SD amount) can be released against submission of equivalent Bank Guarantee in acceptable form, but only once, before completion of work, at the discretion of BHEL.
- 11.3 The BG shall be submitted only through the Banker. Along with the BG, the Bank shall also furnish a letter of confirmation
- 11.4 The validity of the Bank Guarantee furnished towards Security Deposit shall be up to three months more than the period of completion of work as stipulated in the LOI and the same will be kept valid by proper renewal till the completion of the work.
- 11.5 BHEL reserves the right of forfeiture of Security Deposit in addition to other claims and penalties in the event of the contractor's failure to fulfil any of the contractual obligations or in the event of termination of contract as per terms and conditions of the contract. BHEL reserves the right to set off the Security Deposit, against any claims of any other contracts with BHEL.

11.6 Conditions for acceptance of bank guarantees

Contractors are advice to obtain Bank Guarantee preferably from any of the following BHEL consortium banks



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Sl. No.	Name of Bank	Sl. No.	Name of Bank
1	State Bank of India	11	Punjab National Bank
2	Canara Bank	12	Union Bank of India
3	IDBI Bank Limited	13	Yes Bank Limited
4	ICICI Bank Limited	14	RBL Bank Ltd.
5	HDFC Bank Limited	15	Standard Chartered Bank
6	Axis Bank	16	Indian Overseas Bank
7	IndusInd Bank Limited	17	Kotak Mahindra Bank Limited
8	Bank of Baroda	18	Federal Bank Limited
9	Exim Bank	19	Hongkong and Shanghai Banking
	LAIIII Dalik		Corporation Ltd
10	Indian Bank		

Bank Guarantees from Banks outside BHEL's consortium shall be as below:

The Bank Guarantees of all Public sector banks can be accepted (in addition to consortium banks)

The Bank Guarantees of Co-operative banks shall not be accepted.

Bank Guarantees of other than consortium bank and public sector bank can be accepted subject to an overall exposure limit (at New Delhi) of Rs. 10 crores for banks with networth of more than Rs. 500 crores as on last balance sheet date and Rs 5 crores for banks with net worth between Rs. 350 to Rs 500 crores (A certificate and copy of latest Balance Sheet to be given by the Bank at the time of submission of Bank Guarantees).

In case of private sector banks a clause to be incorporated in the text of Bank Guarantee that it can be enforceable by being presented at any branch of the bank.

In case of foreign vendors the bank guarantees issued by foreign banks may be confirmed by our consortium bank in India.

In case of Bank Guarantees given by Non-Consortium banks (Private sector or Public sector), the Bank Guarantees are to be enforceable in New Delhi or the town/ city in which the sector office is located.

11.7 RETURN OF SECURITY DEPOSIT:

If the contractor duly performs and completes the work in all respects to the entire satisfaction of BHEL and presents an absolute "No demand certificate", returns properties belonging to BHEL, taken, borrowed or hired by him for carrying out the said works, and furnishes performance bond BG in the prescribed proforma, Security Deposit will be released to the contractor after deducting all costs, expenses and other amounts that are to be paid to BHEL under this contract or other contracts entered into with the contractor.



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It may be noted that in no case the Security Deposit shall be refunded/released prior to passing of final bill.

11.8 Bank Account Details for submission of EMD/ Security Deposit through electronic fund transfer mode.

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TRANSMISSION BUSINESS GROUP,
PLOT NO25, SECTOR-16A, NOIDA
DISTT GAUTAMBUDH NAGAR – 201301 (U.P.)
STATE BANK OF INDIA
CAG-II NEW DELHI (17313)
NEW DELHI
00000030206227732
CASH CREDIT
SBIN0017313

12.0 PAYMENT TERMS:

90% payment of BOQ items on the completion of major work, submission of required document & their certification by BHEL site Engineer.

Balance 10% payment of BOQ items shall be released after completion of all activities under scope of Works, Approval of the final report by customer, the contractor shall submit the final bill to BHEL site.

13.0 QUANTITY AND PRICE VARIATION

The quantities indicated in "Bill of Quantity" attached with the tender are indicative only and individual quantity may vary up to any extent. However, agreed unit rates shall remain firm up to a variation of + 30% of the total value of the rate contract irrespective of variations in the quantity of individual items.

14.0 TAXES & DUTIES: -

- 14.1. All taxes (except GST), duties, charges, royalties, cess and any other levies by Central/ State/local authorities for the execution of the contract shall be borne by the contractor and shall not be payable extra. Any increase of the same at any stage during execution of the contract shall be borne by the contractor. Quoted price of the same shall be inclusive of all such requirements.
- 14.2. Contractors have to make their own arrangement at their cost for completing the formalities, if required with relevant taxation authorities, for bringing their material, plant and machinery at site for the execution of the contract. Road permits / way bill, if required shall be arranged by the contractor.



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14.3. The Contractor is responsible to furnish documentary evidence towards GST Registration of the State wherein the site is located or any other documents as per GST Act which may be required from time to time. BHEL will not be held to be responsible for any non-compliance of the Contractor in respect of GST laws as framed from time to time.

- 14.4. Goods and Service Tax (GST) will be reimbursed to the Contractor subject to the following conditions:
 - i. Submission of valid GST Compliant Tax Invoice as per the GST Invoice Rules.
 - ii. The Invoice raised by the Contractor should indicate the BHEL GST Registration Number.
 - iii. Contractor declaring such invoices in GSTR-1 and the same should be available to BHEL in the form GSTR -2A/ 2B electronically through GST portal.
 - iv. Confirmation of payment of GST thereon by contractor on GST portal.
- 1.5. The GST amount shall get reflected within prescribed time limit in the GSTN for BHEL to avail the input credit. If the GST Credit is reversed/ denied/ delayed to BHEL due to non-receipt/delayed receipt of Services and/or tax invoice or due to expiry of timeline prescribed in GST law or due to any other factor for availing such Input Tax Credit (ITC) or for any other reason arising out of the act directly attributable to the Contractor, GST amount shall be recoverable from Contractor from any dues payable to the Contractor along with any interest levied/ leviable on BHEL.
- 1.6. Statutory variation, if any, on account of GST will be payable by BHEL at actuals on submission of documentary evidence.
- 1.7. TDS under Income Tax Act/ GST Act shall be deducted as per applicable rates unless Exemption certificate, if applicable, from the appropriate Authority is furnished to BHEL along with the Invoice.

1.8. New Taxes & duties (Introduced after tender opening date):

If any new tax or duty is levied by the Central/State Government/Municipality/Local Authority and becomes directly applicable on items specified in the Bill of Quantities, full reimbursement shall be made subject to submission of documentation as per statute.

15.0 COMPLETION SCHEDULE:

All work within the scope of the work should be finished within 02 months from the issuance of the Letter of Intent (LOI).

16.0 LIQUIDATED DAMAGE/PENALTY:

In case the contractor fails to complete the work within the time specified in the tender specification or any extension thereof subject to force majeure condition, the contractor shall be liable to pay by way of LD/Penalty a sum equal to the half percent of the contract price including PVC, per calendar week or part thereof by which the completion of work is delayed, subject to ceiling of 10 % of the contract price. Once the maximum limit of delay is reached (i.e. 20 week of delay) BHEL may consider termination of the contract and forfeit the Security deposit without prejudice to the other remedies under the contract.

Amended/ revised contract value (excluding Extra Works, Supplementary /Additional Items) shall be considered for calculating LD/ penalty.



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17.0 VALIDITY OF OFFER

The offer shall be kept open for acceptance for a minimum period of FOUR months from the date of opening of tenders. In case BHEL calls for negotiations, such negotiations shall not amount to cancellation or withdrawal of the original offer which shall be binding on the tenderer.

18.0 DELAY AND EXTENSION OF TIME:

- **18.1**. If, in the opinion of the Engineer, the work is delayed:
 - (i) by reason of abnormally bad weather, or
 - (ii) by reason of serious loss or damage by fire, or
 - (iii) by reason of civil commotion, local combination of workmen, strike or lockout, affecting any of the trades employed on the work, or
 - (iv) by delay on the part of the agency or tradesman engaged by the BHEL in executing work not forming part of the contract, or
 - By reason of any other cause which in the absolute discretion of the Engineer is beyond the contractor's control, then in any such case, the Engineer (or higher authority) may make fair and reasonable extension in the completion dates of the individual items of work of the contract as whole. Such extension which will be communicated to the contractor by the Engineer in writing shall be final and binding on the contractor. No other claim in this respect for compensation, idle labour or otherwise howsoever is admissible. Upon the happening of any such event causing delay the contractor shall immediately give notice thereof in writing to the Engineer but shall nevertheless use constantly his best endeavour to prevent or make good the delay and shall do all that may reasonably be required to the satisfaction of the Engineer to proceed with the work.
- 18.2. In case of delay in completion of work BHEL reserve the right to grant time extension under the following options depending upon the performance of the vendor:
 - a) Time extension without levy of LD in case it is found that delay is not attributable to the vendor
 - b) Time extension with deduction of applicable LD in line with Liquidity Damage clause if the delay is solely attributable to the vendor.
 - c) In case facts of delay is not settled, BHEL reserve the right to grant provisional time extension for delay in completion of total work or part thereof and running/ interim payments to the vendor will be released without deduction of LD subject to submission of additional Bank guarantee equivalent to maximum LD amount valid till completion of work under their scope and grant of final time extension.

During provisional time extension period ORC/ PVC shall not be payable to the contractor. The Final Delay analysis shall be prepared on completion of the work. In case of delay is not attributable to contractor as per final delay analysis the ORC/ PVC shall be released along with the final bill without any interest charges attributable to BHEL.

In case of delay attributable to contractor, LD shall be deducted for that period in line with clause "Compensation/ LD/ Penalty for delay in execution" of conditions of contract and



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balance ORC/ PVC (if any) shall be released along with the final bill without any interest charges attributable to BHEL.

PVC/ ORC shall be governed by respective clauses in the NIT

19.0 RIGHTS OF BHEL

BHEL reserves the following rights in respect of this contract during the original contract period or its extensions if any, as per the provisions of the contract, without entitling the contractor for any Compensation.

19.1 To withdraw any portion of work and/or to restrict/alter quantum of work as indicated in the contract during the progress of work and get it done through other agencies to suit BHEL's commitment to its customer or in case BHEL decides to advance the date of completion due to other emergent reasons/ BHEL's obligation to its customer.

In case of inadequate manpower deployed by the contractor, BHEL reserves the right to deploy additional manpower through any other agency for expediting activities in the interest of the project. Supplied manpower shall be put on job by the contractor and payments and other statutory compliances related to manpower shall be the contractor's

responsibility. In case of contractor's failure to fulfil his obligations in respect of such manpower, BHEL reserves the right to take necessary action as per contract conditions

19.2 BREACH OF CONTRACT, REMEDIES AND TERMINATION:

19.2.1. The following shall amount to breach of contract:

- I. Non-supply of material/ non-completion of work by the Supplier/Vendor within scheduled delivery/ completion period as per contract or as extended from time to time.
- II. The Supplier/Vendor fails to perform as per the activity schedule and there are sufficient reasons even before expiry of the delivery/ completion period to justify that supplies shall be inordinately delayed beyond contractual delivery/ completion period.
- III. The Supplier/Vendor delivers equipment/ material not of the contracted quality.
- IV. The Supplier/Vendor fails to replace the defective equipment/ material/ component as per guarantee clause.
- V. Withdrawal from or abandonment of the work by the Supplier/Vendor before completion as per contract.
- VI. Assignment, transfer, subletting of Contract by the Supplier/Vendor without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.
- VII. Non-compliance to any contractual condition or any other default attributable to Supplier/Vendor.
- VIII. Any other reason(s) attributable to Vendor towards failure of performance of contract. In case of breach of contract, BHEL shall have the right to terminate the Purchase Order/Contract either in whole or in part thereof without any compensation to the Supplier/Vendor.
- IX. Any of the declarations furnished by the contractor at the time of bidding and/ or entering into the contract for supply are found untruthful and such declarations were of a nature



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that could have resulted in non-award of contract to the contractor or could expose BHEL and/ or Owner to adverse consequences, financial or otherwise.

X. Supplier/Vendor is convicted of any offence involving corrupt business practices, antinational activities or any such offence that compromises the business ethics of BHEL, in violation of the Integrity Pact entered into with BHEL has the potential to harm the overall business of BHEL/ Owner.

Note-Once BHEL considers that a breach of contract has occurred on the part of Supplier/Vendor, BHEL shall notify the Supplier/Vendor by way of notice in this regard. Contractor shall be given an opportunity to rectify the reasons causing the breach of contract within a period of 14 days.

In case the contractor fails to remedy the breach, as mentioned in the notice, to the satisfaction of BHEL, BHEL shall have the right to take recourse to any of the remedial actions available to it under the relevant provisions of contract.

LD against delay in executed work in case of Termination of Contract:

LD against delay in executed work shall be calculated in line with relevant LD clause of GCC, for the delay attributable to contractor. For limiting the maximum value of LD, contract value shall be taken as Executed Value of work till termination of contract.

Method for calculation of "LD against delay in executed work in case of termination of contract" is given below.

- o Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor = T1
- o Let the value of executed work till the time of termination of contract= X
- o Let the Total Executable Value of work for which inputs/fronts were made available to contractor and were planned for execution till termination of contract = Y
- o Delay in executed work attributable to contractor i.e. T2=[1-(X/Y)] x T1
- LD shall be calculated in line with LD clause of the Contract for the delay attributable to contractor taking "X" as Contract Value and "T2" as period of delay attributable to contractor.

19.2.2. Remedies in case of Breach of Contract:

- i) Wherein the period as stipulated in the notice issued under clause "BREACH OF CONTRACT, REMEDIES AND TERMINATION" of GCC has expired and Contractor has failed to remedy the breach, BHEL will have the right to terminate the contract on the ground of "Breach of Contract" without any further notice to contractor.
- ii) Upon termination of contract, BHEL shall be entitled to recover an amount equivalent to 10% of the Contract Value for the damages on account of breach of contract committed by the Contractor. This amount shall be recovered by way of encashing the security instruments like performance bank guarantee etc available with BHEL against the said contract. In case the value of the security instruments available is less than 10% of the contract value, the balance amount shall be recovered from other financial remedies (i.e. available bills of the contractor, retention amount, from the money due to the Contractor etc. with BHEL) or the other legal remedies shall be pursued.



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iii) wherever the value of security instruments like performance bank guarantee available with BHEL against the said contract is 10% of the contract value or more, such security instruments to the extent of 10% contract value will be encashed. In case no security instruments are available or the value of the security instruments available is less than 10% of the contract value, the 10% of the contract value or the balance amount, as the case may be, will be recovered in all or any of the following manners:

- iv) In case the amount recovered under sub clause (a) above is not sufficient to fulfil the amount recoverable then; a demand notice to deposit the balance amount within 30 days shall be issued to Contractor.
- v) If Contractor fails to deposit the balance amount within the period as prescribed in demand notice, following action shall be taken for recovery of the balance amount:
 - a. from dues available in the form of Bills payable to defaulted Contractor against the same contract.
 - b. If it is not possible to recover the dues available from the same contract or dues are insufficient to meet the recoverable amount, balance amount shall be recovered from any money(s) payable to Contractor under any contract with other Units of BHEL including recovery from security deposits or any other deposit available in the form of security instruments of any kind against Security deposit or EMD.
 - c. In-case recoveries are not possible with any of the above available options, Legal action shall be initiated for recovery against defaulted Contractor.
- vi) It is an agreed term of contract that this amount shall be a genuine pre-estimate of damages that BHEL would incur in completion of balance contractual obligation of the contract through any other agency and BHEL will not be required to furnish any other evidence to the Contractor for the purpose of estimation of damages.
- vii) In addition to the above, imposition of liquidated damages, debarment, termination, descoping, short-closure, etc., shall be applied as per provisions of the contract.

Note:

- 1) The defaulting contractor shall not be eligible for participation in any of the future enquiries floated by BHEL to complete the balance work. The defaulting contractor shall mean and include:
- (a) In case defaulted contractor is the Sole Proprietorship Firm, any Sole Proprietorship Firm owned by same Sole Proprietor.
- (b) In case defaulted contractor is The Partnership Firm, any firm comprising of same partners/ some of the same partners (but not including any new partner); or sole proprietorship firm owned by any partner(s) as a sole proprietor.
- 19.3 In case Contractor fails to deploy the resources as per requirement informed by BHEL in writing to expedite the work, BHEL can deploy own/hired/otherwise arranged resources and recover the expenses incurred from the dues payable to contractor. Recoveries shall be actual expenses incurred plus 5% overheads or as defined in TCC.



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19.4 To terminate the contract or to restrict the quantum of work and pay for the portion of work executed in case BHEL's contract with their customer are terminated for any reason, whatsoever.

- 19.5 Whenever any Claim or Claims for payment of any sum of money(s) arises under this or any other contract against the contractor, BHEL shall be entitled to withhold and also have a lien to retain such sum of money(s) in whole or in part from any money(s) payable to contractor and/or security deposits furnished or deducted in cash from the bills of contractor, (if any) under this contract. In the event of the securities or the amounts payable to Contractor, being insufficient to cover BHEL claims, then BHEL shall be entitled to withhold and have a lien to the extent of such claims from any sum or sums found payable or which at any time thereafter may become payable to the contractor under this or any other contract with BHEL.
 - a) Claim or Claims for payment of any sum of money(s) arising from the Contractor under this or any other contract against the contractor, shall mean, the sum of money(s) actually incurred by BHEL in fulfilling the contractual responsibilities of contractor under the contract, to which he has failed to fulfil plus applicable overheads (@ 5%) along with interest as applicable under the Contract on total amount (i.e. money actually incurred plus overheads)
 - b) It is an agreed term of the contract that, the sum or sums of money so withheld or retained under the lien by BHEL will be kept withheld or retained as such by BHEL till the claims arising out of this or any other contract are finally adjudicated wither through Arbitration or a Court of competent jurisdiction as the case may be in accordance with the terms of contract. Intimation given by the BHEL Engineer regarding withholding of such money(s) shall be considered as sufficient and relevant date for all purposes. No Interest shall be payable on such sum(s) of money which becomes due or as the case may be adjudged to be due from BHEL to Contractor, whether under contract or otherwise.
 - c) Where the contractor is a partnership firm, BHEL shall be entitled to withhold and also have a lien to retain towards such claims in whole or in part, from any other money(s) payable to any partner, whether in his individual capacity or otherwise.
 - d) If any money(s) shall, as a result of any claim or application made under the relevant provisions of any Labour Welfare Act and/ or Rules, including but not limited to Contract Labour Regulation & Abolition Act, Minimum Wages Act, Payment of Gratuity Act, BOCW (RE&CS) Act, Provident Fund Act, Employee State Insurance Act, be directed to be paid by the BHEL, such money shall be deemed to be moneys payable to the BHEL by the Contractor.
 - **e)** Where the Contractor fails to repay to BHEL such moneys along with applicable overheads (@ 5%) and interest, as aforesaid within seven days of being demanded, BHEL shall be entitled to recover the same from Contractor's bills/ Security Deposit or any other money(s) payable to Contractor under this Contract or any other Contract with BHEL.
- 19.6 While every endeavor will be made by BHEL to this end, yet BHEL cannot guarantee uninterrupted work due to conditions beyond its control. The Contractor will not be normally entitled for any compensation/extra payment on this account unless otherwise specified elsewhere in the contract.



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19.7 BHEL may permit or direct contractor to demobilize and remobilize at a future date as intimated by BHEL in case of following situations for reasons other than Force majeure conditions and not attributable to contractor:

- i) suspension of work(s) at a Project either by BHEL or Customer, or
- ii) where work comes to a complete halt or reaches a stage wherein worthwhile works cannot be executed and there is no possibility of commencement of work for a period of not less than three months

In such cases, charges towards demobilization and remobilization shall be as decided by BHEL after successful remobilization by contractor at site, and decision of BHEL shall be final and binding on the contractor. After remobilization, all conditions as per contract shall become applicable. In case Contractor does not remobilize with adequate resources or does not start the work within the period as intimated, then BHEL reserves the right to terminate the contract and effect remedies under Clause "Remedies in case of Breach of Contract" In case of any conflict, BHEL decision in this regard shall be final and binding on the contractor.

- 19.8 In the unforeseen event of inordinate delay in receipt of materials, drawings, fronts etc. due to which inordinate discontinuity of work is anticipated, BHEL on its own or contractor's request at its discretion may consider to short close the contract in any of the following cases:
 - a) The balance works (including but not limited to Trial Operation, PG Test etc.) are minor vis a vis the scope of work envisaged as per the contract.
 - b) There has been no significant work in past 6 months OR no significant work is expected in next 6 months (example in Hydro projects or in projects where work has stopped due to reasons beyond the control of BHEL).
 - c) The balance works cannot be done within a reasonable period of time as they are dependent on unit shut down or on other facilities of customer or any other such reasons not attributable to the contractor.

At the point of requesting for short closure, contractor shall establish that he has completed all works possible of completion and he is not able to proceed with the balance works due to constraints beyond his control. In such a case, the estimated value of the unexecuted portion of work (or estimated value of services to be provided for carrying out milestone/stage payments like Trial Operation/PG Test etc.) as decided by BHEL, shall however be reduced from the final contract value.

Note: The Contractor shall not be eligible for any compensation on account of Quantity Variation arising out of short-closure of contract as per clause above.



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20.0 LAW GOVERNING THE CONTRACT AND COURT JURISDICTION:

The Contract shall be governed by the Law for the time being enforced in the Republic of India. The Civil Court at Delhi having ordinary Original Civil Jurisdiction shall alone have exclusive jurisdiction in regard to all claims in respect of this contract.

21.0 FORCE MAJEURE:

- 21.1 "Force Majeure" shall mean circumstance which is:
 - a) beyond control of either of the parties to contract,
 - b) either of the parties could not reasonably have provided against the event before entering into the contract,
 - c) having arisen, either of the parties could not reasonably have avoided or overcome, and
 - d) is not substantially attributable to either of the parties

And

Prevents the performance of the contract,

Such circumstances include but shall not be limited to:

- i) War, hostilities, invasion, act of foreign enemies.
- ii) Rebellion, terrorism, revolution, insurrection, military or usurped power, or civil war.
- iii) Riot, commotion or disorder by persons other than the contractor's personnel and other employees of the contractor and sub-contractors.
- iv) Strike or lockout not solely involving the contractor's personnel and other employees of the contractor and sub-contractors.
- v) Encountering munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the contractor's use of such munitions, explosives, radiation or radio- activity.
- vi) Natural catastrophes such as earthquake, tsunami, volcanic activity, hurricane or typhoon, flood, fire, cyclones etc.
- vii) Epidemic, pandemic etc.
- 21.2 The following events are explicitly excluded from Force Majeure and are solely the responsibilities of the non-performing party: a) any strike, work-to-rule action, go-slow or similar labour difficulty (b) late delivery of equipment or material (unless caused by Force Majeure event) and (c) economic hardship.
- 21.3 If either party is prevented, hindered or delayed from or in performing any of its obligations under the Contract by an event of Force Majeure, then it shall notify the other in writing of the occurrence of such event and the circumstances thereof within 15 (fifteen) days after the occurrence of such event.
- 21.4 The party who has given such notice shall be excused from the performance or punctual performance of its obligations under the Contract for so long as the relevant event of Force Majeure continues and to the extent that such party's performance is prevented, hindered or delayed. The Time for Completion shall be extended by a period of time equal to period of delay caused due to such Force Majeure event.
- 21.5 Delay or non-performance by either party hereto caused by the occurrence of any event of Force Majeure shall not
 - a) Constitute a default or breach of the Contract.



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Give rise to any claim for damages or additional cost expense occasioned thereby, if and to the extent that such delay or non-performance is caused by the occurrence of an event of Force Majeure.

21.6 BHEL at its discretion may consider short closure of contract after 1 year of imposition of Force Majeure in line with extant guidelines. In any case, Supplier/Vendor cannot consider deemed short-closure after 1 year of imposition of Force Majeure

22.0 SUSPENSION OF BUSINESS DEALINGS:

BHEL reserves the right to take action against Contractors who either fail to perform or Tenderers/Contractor who indulge in malpractices, by suspending business dealings with them in line with BHEL guidelines issued from time to time.

The offers of the bidders who are under suspension as also the offers of the bidders, who engage the services of the banned firms / principal / agents, shall be rejected. The list of banned firms is available on BHEL web site www.bhel.com.

If any bidder / supplier / contractor during pre-tendering / tendering / post tendering / award / execution / post-execution stage indulges in any act, including but not limited to, mal-practices, cheating, bribery, fraud or and other misconduct or formation of cartel so as to influence the bidding process or influence the price or tampers the tendering process or acts or omits in any manner which tantamount to an offence punishable under any provision of the Indian Penal Code, 1860 or any other law in force in India, or does anything which is actionable under the Guidelines for Suspension of Business dealings, action may be taken against such bidder / supplier / contractor as per extant guidelines of the company available on www.bhel.com and / or under applicable legal provisions. Guidelines for suspension of business dealings is available in the webpage:

http://www.bhel.com/vender_registration/vender.php

23.0 LIMITATION ON LIABILITY:

Notwithstanding anything to the contrary in this Contract or LOA or any other mutually agreed document between the parties, the maximum liability, for damages, of the contractor, its servants or agents, shall under no circumstances exceed an amount equal to the Price of the Contract or the Work Order. The Contractor shall not in any case be liable for loss of profit or special, punitive, exemplary, indirect or consequential losses whatsoever. This shall not be applicable on the recoveries made by Customer from BHEL on account of Contractor, any other type of recoveries for workmanship, material, T&P etc. due from the contractor.

24.0 SETTLEMENT OF DISPUTE:

If any dispute or difference of any kind whatsoever shall arise between BHEL and the Supplier/Vendor, arising out of the contract for the performance of the work whether during the progress of contract termination, abandonment or breach of the contract, it shall in the first place referred to Designated Engineer for amicable resolution by the parties. Designated Engineer (to be nominated by BHEL for settlement of disputes arising



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out of the contract) who within 60 days after being requested shall give written notice of his decision to the contractor. Save as hereinafter provided, such decision in respect of every matter so referred shall forthwith be given effect to by the Supplier/Vendor who shall proceed with the work with all due diligence, whether he or BHEL desires to resolve the dispute as hereinafter provided or not.

If after the Designated Engineer has given written notice of this decision to the party and no intention to pursue the dispute has been communicated to him by the affected party within 30 days from the receipt of such notice, the said decision shall become final and binding on the parties. In the event the Supplier/Vendor being dissatisfied with any such decision or if amicable settlement cannot be reached then all such disputed issues shall be resolved through conciliation in terms of the BHEL Conciliation Scheme 2018 as per Clause "Conciliation" of GCC.

24.1 CONCILIATION:

Any dispute, difference or controversy of whatever nature howsoever arising under or out of or in relation to this Agreement (including its interpretation) between the Parties, and so notified in writing by either Party to the other Party (the "Dispute") shall, in the first instance, be attempted to be resolved amicably in accordance with the conciliation procedure as per BHEL Conciliation Scheme 2018. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided in - "Procedure for conduct of conciliation proceedings" (as available in www.bhel.com)).

Note: Ministry of Finance has issued OM reference No. 1/2/24 dated 03.06.2024 regarding "Guidelines for Arbitration and Mediation in Contracts of Domestic Public Procurement. In the said OM it has been recommended that Government departments/

Entities/agencies are to encourage mediation under the Mediation Act. 2023. The said Act has not yet been notified by the Government. Therefore, the clause "**Settlement of Disputes**" shall be modified accordingly as and when the Mediation Act 2023 gets notified.

24.2 **ARBITRATION:**

- 24.2.1 Except as provided elsewhere in this Contract, in case Parties are unable to reach amicable settlement (whether by Conciliation to be conducted as provided in Clause "Conciliation" herein above or otherwise) in respect of any dispute or difference; arising out of the formation, breach, termination, validity or execution of the Contract; or, the respective rights and liabilities of the Parties; or, in relation to interpretation of any provision of the Contract; or. in any manner touching upon the Contract (hereinafter referred to as the 'Dispute'), then, either Party may, refer the disputes to Arbitral Institution i.e. "India International Arbitration Centre (IIAC) Delhi" and such dispute to be adjudicated by Sole Arbitrator appointed in accordance with the Rules of said Arbitral Institution.
- 24.2.2 A party willing to commence arbitration proceeding shall invoke Arbitration Clause by giving notice to the other party in terms of section 21 of the Arbitration & Conciliation Act, 1996 (hereinafter referred to as the 'Notice') before referring the matter to arbitral institution.



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The Notice shall be addressed to the Executive Director, TBG, BHEL, Noida, executing the Contract and shall contain the particulars of all claims to be referred to arbitration with sufficient detail and shall also indicate the monetary amount of such claim including interest, if any.

- 24.2.3 After expiry of 30 days from the date of receipt of aforesaid notice, the party invoking the Arbitration shall submit that dispute to the Arbitral Institutions and that dispute shall be adjudicated in accordance with their respective Arbitration Rules. The matter shall be adjudicated by a Sole Arbitrator who shall necessarily be a Retd Judge having considerable experience in commercial matters to be appointed/nominated by the respective institution. The cost/expenses pertaining to the said Arbitration shall also be governed in accordance with the Rules of the respective Arbitral Institution. The decision of the party invoking the Arbitration for reference of dispute to a specific Arbitral institution for adjudication of that dispute shall be final and binding on both the parties and shall not be subject to any change thereafter. The institution once selected at the time of invocation of dispute shall remain unchanged.
- 24.2.4 The fee and expenses shall be borne by the parties as per the Arbitral Institutional rules.
- 24.2.5 The Arbitration proceedings shall be in English language and the seat and venue of Arbitration shall be Delhi.
- 24.2.6 Subject to the above, the provisions of Arbitration & Conciliation Act 1996 and any amendment thereof shall be applicable. All matters relating to this Contract and arising out of invocation of Arbitration clause are subject to the exclusive jurisdiction of the Court(s) situated at **Delhi.**
- 24.2.7 Notwithstanding any reference to the Designated Engineer or Conciliation or Arbitration herein, a. the parties shall continue to perform their respective obligations under the Contract unless they otherwise agree. Settlement of Dispute clause cannot be invoked by the Contractor, if the Contract has been mutually closed or 'No Demand Certificate' has been furnished by the Contractor or any Settlement Agreement has been signed between the Employer and the Contractor.
- 24.2.8. The Mechanism of resolution of disputes through arbitration shall be available only in the cases where the value of the dispute is less than Rs. 10 Crores.
- 24.2.9 In case the disputed amount (Claim, Counter claim including interest is Rs. 10 crores and above, the parties shall be within their rights to take recourse to remedies other than Arbitration, as may be available to them under the applicable laws after prior intimation to the other party. Subject to the aforesaid conditions, provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment thereof as amended from time to time, shall apply to the arbitration proceedings under this clause.
- 24.2.10 In case, multiple arbitrations are invoked (whether sub-judice or arbitral award passed) by any party to under this contract, then the cumulative value of claims (including interest claimed or awarded) in all such arbitrations shall be taken in account while arriving at the total claim in dispute for the subject contract for the purpose of clause 24.2.9. Disputes



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having cumulative value of less than 10 crores shall be resolved through arbitration and any additional dispute shall be adjudicated by the court of competent jurisdiction.

24.3 In case of Contract with Public Sector Enterprise (PSE) or a Government Department, the following shall be applicable:

In the event of any dispute or difference relating to the interpretation and application of the provisions of commercial contract(s) between Central Public Sector Enterprises (CPSEs)/ Port Trusts inter se and also between CPSEs and Government Departments/Organizations (excluding disputes concerning Railways, Income Tax, Customs & Excise Departments), such dispute or difference shall be taken up by either party for resolution through AMRCD (Administrative Mechanism for Resolution of CPSEs Disputes) as mentioned in DPE OM No. 05/0003/2019-FTS-10937 dated 14-12-2022 as amended from time to time.

24.4 NO INTEREST PAYABLE TO CONTRACTOR

Notwithstanding anything to the contrary contained in any other document comprising in the Contract, no interest shall be payable by BHEL to Contractor on any moneys or balances including but not limited to the Security Deposit, EMD, Retention Money, RA Bills or the Final Bill, or any amount withheld and/or appropriated by BHEL etc., which becomes or as the case may be, is adjudged to be due from BHEL to Contractor whether under the Contract or otherwise.

25.0 Provisions for micro and small enterprises (MSEs)

MSE vendors can avail the intended benefits only if they submit along with the offer, attested copies of either EM II certificate having deemed validity (five years from the date of issue of acknowledgement in EM II) or valid NSIC certificate or UDYAM REGISTRATION CERTIFICATE or EM II certificate along with attested copy of a CA certificate (Format enclosed at Annexure-1 where deemed validity of EM II certificate of five years has expired) applicable for the relevant financial year (latest audited). Date to be reckoned for determining the deemed validity will be the date of bid opening (Part 1 in case of two-part bid). Non-submission of such documents will lead to consideration of their bid at par with other bidders. No benefit shall be applicable for this enquiry if any deficiency in the above required documents are not submitted before price bid opening. If the tender is to be submitted through e-procurement portal, then the above required documents are to be uploaded on the portal.

- a) MSEs shall be exempted from payment of earnest money (if any) at the time of tender submission. However, there is no exemption of security deposit submission.
- b) However, credentials of all MSE suppliers will be verified before considering the intended benefits for MSE suppliers at the time of tender evaluation.



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26.0 PERFORMANCE MONITORING:

The Contractors performance shall be continuously monitored during execution of work at site.

In case of contractor's performance is found not satisfactory during the execution of work at site, BHEL may take alternate remedial measures and may not consider the contractor for further tenders, if the contractor performance is not improved in spite of opportunities given by BHEL.

27.0 CLOSING OF CONTRACTS:

The Contract shall be considered completed and closed upon completion of contractual obligations and settlement of Final Bill or completion of Guarantee period whichever is later. Upon closing of Contract, BHEL shall issue a performance/ experience certificate as per standard format, based on specific request of Contractor as per extant BHEL guidelines through the online portal available at https://siddhi.bhel.in only.

28.0 MEASUREMENT OF WORK AND MODE OF PAYMENT:

- a. All payments due to the contractors shall be made by e mode only, unless otherwise found operationally difficult for reasons to be recorded in writing.
- b. For progress running bill payments: The Contractor shall present detailed measurement sheets in triplicate, duly indicating all relevant details based on technical documents and connected drawings for work done during the month/period under various categories in line with terms of payment as per contract. The basis of arriving at the quantities, weights shall be relevant documents and drawings released by BHEL. These measurement sheets shall be prepared jointly with BHEL Engineers and signed by both the parties.
- c. These measurement sheets will be checked by BHEL Engineer and quantities and percentage eligible for payment under various groups shall be decided by BHEL Engineer. The abstract of quantities and percentage so arrived at based on the terms of payment shall be entered in Measurement Book by BHEL Engineers and signed by both the parties.
- d. These measurement sheets will be checked by BHEL Engineer and quantities and percentage eligible for payment under various groups shall be decided by BHEL Engineer. The abstract of quantities and percentage so arrived at based on the terms of payment shall be entered in Measurement Book and signed by both the parties.
- e. Based on the above quantities, contractor shall prepare the bills, along with statutory documents, in prescribed format and work out the financial value. These will be entered in Measurement Book and signed by both the parties. Payment shall be made by BHEL after effecting the recoveries due from the contractor.
- f. All recoveries due from the contractor for the month/period shall be effected in full from the corresponding running bills unless specific approval from the competent authorities is obtained to the contrary.
- g. Measurement shall be restricted to that portion of work for which it is required to ascertain the financial liability of BHEL under this contract.
- h. The measurement shall be taken jointly by persons duly authorized on the part of BHEL and by the Contractor.
- i. The Contractor shall bear the expenditure involved if any, in making the measurements and testing of materials to be used/ used in the work. The contractor shall, without extra



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charges, provide all the assistance with appliances and other things necessary for measurement.

- j. If at any time due to any reason whatsoever, it becomes necessary to re-measure the work done in full or in part, the expenses towards such re measurements shall be borne by the contractor unless such re measurements are warranted solely for reasons not attributable to contractor.
- k. Passing of bills covered by such measurements does not amount to acceptance of the completion of the work measured. Any left-out work has to be completed, if pointed out at a later date by BHEL.
- I. Final measurement bill shall be prepared in the final bill format prescribed for the purpose based on the certificate issued by BHEL Engineer that entire works as stipulated in tender specification has been completed in all respects to the entire satisfaction of BHEL. Contractor shall give unqualified "No Claim" Certificate. All the tools and tackles loaned to him should be returned in satisfactory condition to BHEL. The abstract of final quantities and financial values shall also be entered in the Measurement Books and signed by both parties to the contract. The Final Bill shall be prepared and paid within a reasonable time after completion of work.

29.0 PROGRESSIVE PAYMENT/ FINAL PAYMENT:

29.1 Running Account Bills (RA Bills)

- i) These are for interim payments when the contracts are in progress. The bills for such interim payments are to be prepared by Contractor in prescribed formats (RA Bill forms).
- ii) Payments shall be made according to the extent of work done as per measurements taken up to the end of the calendar month and in line with the terms of payments described in the Tender documents.
- iii) Recoveries on account of electricity, water, statutory deductions etc. are made as per terms of contract.
- iv) Payment of particular BOQ item for the work done shall be allowed only if the quantum of work has been done as per the specifications stipulated in the contract. If the work is not executed as per the stipulated specifications, BHEL may ask the contractor to redo the work according to the required specifications, without any extra cost.
- v) The contractor shall submit his monthly RA bills with all the details required by BHEL on specified date every month covering progress of work in all respects and areas for the previous calendar month.
- vi) Mode of payment and measurement of work completed shall be as per relevant clauses of General Conditions of Contract
- vii) Release of payment in each running bill including PVC Bills where ever applicable will be as per stages of progressive pro rata payments.
- viii) The contractor will be eligible for payment of RA Bills within 30 days of submission of running bill complete in all respects with all documents. It is the responsibility of the contractor to make his own arrangements for making timely payments towards labour wages, statutory payments, outstanding dues etc. and other dues in the meanwhile.

 All documents like HR Clearance Quality and Safety Compliances etc. required for
 - All documents like HR Clearance, Quality and Safety Compliances etc. required for processing the RA Bills should be submitted along with RA Bills.
- ix) BHEL shall release payment through Electronic Fund Transfer (EFT)/RTGS. In order to implement this system, Contractor to furnish details pertaining to his Bank Accounts where proceeds will be transferred through BHEL's banker, as per prescribed formats.



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For MSMEs, at the time of submission of first RA bill, the subcontractor has to declare whether it is registered on RXIL portal and wishes to receive the proceeds through RXIL portal throughout the contract duration

- **29.1.1 Documents required for RA Bill** (in addition to documents required as per SCOPE, SPECIFIC TECHNICAL REQUIREMENT AND SCHEDULE OF ITEMS):
 - a) GST Complied Invoice of the work done as per approved BOQ.
 - b) Jointly signed Measurement sheet, Abstract (for civil works), WAM -6 for RA Bill.
 - c) Validity of SD Bank Guarantees as applicable under the contract.
 - d) Labour Payment Certificate
 - e Calibration Report of equipments used.
 - f) Power of Attorney for representative signing MBs etc, if not submitted earlier.
 - g) HR compliance documents (like PF, ESI, Wage sheets etc.)
 - h) Any other documents as per customer/statutory requirement

29.2 Final Bill:

- **29.2.1** Final Bill' is used for final payment on closing of Running Account for works or for single payment. 'Final Bill' shall be submitted as per prescribed format after completion of works as per scope, approval of final report by customer, removal of temporary structures from site. BHEL shall settle the final bills after deducting all liabilities of Contractor to BHEL.
- **29.2.2 Documents required for Final Bill** (in addition to documents required as per SCOPE, SPECIFIC TECHNICAL REQUIREMENT AND SCHEDULE OF ITEMS):
 - a) GST Complied Invoice of the work done as per approved BOQ.
 - b) Jointly signed Measurement sheet, Abstract (for civil works), WAM -7, WAM-10 (if applicable)
 - c) Valid Bank Guarantees as applicable under the contract.
 - d) Labour Payment Certificate
 - e) 'No claim' certificate from the contractor.
 - f) Deviation statement showing the Executed quantities and quantities as per the contract.
 - g) Power of Attorney for representative signing MBs etc, if not submitted earlier.
 - h) HR compliance documents (like PF, ESI, Wage sheets etc.)
 - i) Compliance report from BHEL/Customer for completion of punch points
 - j) Final Delay Analysis, if applicable
 - k) Any other documents as per customer requirement/statutory requirement.



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INDEMNITY BOND

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)
This Indemnity Bond executed by <name company="" of=""> having their Registered Office at < > in favour of M/s Bharat Heavy Electricals Limited, a Company incorporated under the Companies Act, 1956, having its Registered Office at BHEL House, Siri Fort, Asiad, New Delhi - 110049 through its unit - TBG 6th Floor, BHEL Sadan, Plot No. 25, Sector-16A, Noida-201301 (UP). (Hereinafter referred to as the Company)</name>
And whereas the Company has entered into a Contract with M/s, the executants of this Deed (hereinafter referred to as the Contractor) as its contractor in respect of the work of "".
AND WHEREAS under the provisions of GCC further stipulates that the Contractor shall indemnify the Company against all claims of whatever nature arising during the course of execution of Contract including defects liability period of <months> i.e till <></months>
Now this deed witness that in case the Company is made liable by any Authority including Court to pay any claim or compensation etc. in respect of all labourers or other matters at any stage under or relating to the Contract with the Contractor, the Contractor hereby covenants and agrees with the Company that they shall indemnify and reimburse the Company to the extent of such payments and for any fee, including litigation charges, lawyers' fees, etc, penalty or damages claimed against the Company by reason of the Contractor falling to comply with Central/States Laws, Rules etc, or his failure to comply with Contract (including all expenses and charges incurred by the Company).

The Contractor further indemnifies the Company for the amount which the Company may be liable to pay by way of penalty for not making deductions from the Bills of the Contractor towards such amount and depositing the same in the Government Treasury.

The Contractor further agree that the Company shall be entitled to withhold and adjust the Security Deposit and/or withhold and adjust payment of Bills of Contractor pertaining to this Contract against any payment which the Company has made or is required to make for which the Contractor is liable under the Contract and that such amount can be withheld, adjusted by the Company till satisfactory and final settlement of all pending matters and the Contractor hereby gives his consent for the same.

The Contractor further agrees that the terms of indemnity shall survive the termination or completion of this contract.



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The contractor further agrees that the liability of the contractor shall be extended on actual basis notwithstanding the limitations of liability clause, in respect of :

- 1. breach of terms of contract by the contractor
- 2. breach of laws by the contractor
- 3. breach of Intellectual property rights by the contractor
- 4. breach of confidentiality by the contractor

Nothing contained in this deed, shall be construed as absolving or limiting the liability of the Contractor under said Contract between the Company and the Contractor. That this Indemnity Bond is irrevocable and the condition of the bond is that the Contractor shall duly and punctually comply with the terms and the conditions of this deed and contractual provisions to the satisfaction of the Company.

outsidetion of the compa	•••
n witness where of M/s	these presents on the day, month and year first, above
written at	by the hand of its signatory Mr
	Signed for and on behalf of
	M/s
Witness:	
Witness:	M/s

- 1.
- 2.



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PROFORMA OF BANK GUARANTEE (in lieu of SECURITY DEPOSIT)

In consideration of Bharat Heavy Electricals Limited (hereinafter referred to as the 'Employer'							
which expression shall unless repugnant to the context or meaning thereof, include its							
successors and permitted assigns) incorporated under the Companies Act, 1956 and having its							
registered office at BHEL House, Siri Fort, New Delhi-110049 through its Unit at BHEL,							
Transmission Business Group, Noida (name of the Unit) having agreed to exempt							
(Name of the Vendor / Contractor / Supplier) with its							
registered office at1 (hereinafter called the said							
"Contractor" which term includes supplier), from demand under the terms and conditions of							
the Contract reference No dated² valued at							
Rs) (hereinafter called the							
said Contract), of Security Deposit for the due fulfilment by the said Contractor of the terms							
and conditions contained in the said Contract, on production of a Bank Guarantee for							
Rsonly),							
We(indicate the							
name and address of the Bank) having its Head Office at							
(address of the head Office) (hereinafter referred to as							
the Bank), at the request of [Contractor(s)], being the							
Guarantor under this Guarantee, do hereby irrevocably and unconditionally undertake to							
forthwith and immediately pay to the Employer, an amount not exceeding							
Rswithout any demur, immediately on demand from the Employer and							
without any reservation, protest, and recourse and without the Employer needing to prove or							
demonstrate reasons for its such demand							
Any such demand made on the bank, shall be conclusive as regards the amount due and							
payable by the Bank under this guarantee. However, our liability under this guarantee shall be							
restricted to an amount not exceeding Rs							
We undertake to pay to the Employer any money so demanded notwithstanding any dispute							
or disputes raised by the Contractor(s) in any suit or proceeding pending before any Court or							
Tribunal or Arbitrator or any other authority, our liability under this present being absolute							
and unequivocal.							
The payment so made by us under this guarantee shall be a valid discharge of our liability for							
payment hereunder and the Contractor(s) shall have no claim against us for making such							
payment.							
We, further agree that the guarantee herein contained shall remain in full force and effect							
during the period that would be taken for the performance of the said Contract and that it							
shall continue to be enforceable till all the dues of the Employer under or by virtue of the said							
Contract have been fully paid and its claims satisfied & the Employer certifies that the terms							
and conditions of the said Contract have been fully and properly carried out by the said							
contractor(s) or acceptance of the final bill or discharge of this guarantee by the Employer,							
whichever is earlier. This guarantee shall initially remain in force up to and							
including ⁵ and shall be extended from time to time for such period as may							



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	be desired by the Employer. Unless a demand or claim under this guarantee is made on us in
,	writing on or before the $\underline{\hspace{1cm}}^6$, (3 months more than the present date of
	validity of Bank Guarantee) we shall be discharged from all the liability under this guarantee
	thereafter.
,	We, (<u>indicate the name of the Bank</u>) further agree with the Employer that
	the Employer shall have the fullest liberty without our consent and without affecting in any
	manner our obligations hereunder to vary any of the terms and conditions of the said
	Contract or to extend time of performance by the said contractor(s) from time to time or to
	postpone for any time or from time to time any of the powers exercisable by the Employer
	against the said contractor(s) and to forbear or enforce any of the terms and conditions
	relating to the said Contract and we shall not be relieved from our liability by any reason of
	any such variation or extension being granted to the said contractor(s) or for any forbearance,
	act or omission on the part of the Employer or any indulgence by the Employer to the said
	contractor(s) or by any such matter or thing whatsoever which under the law relating to
	sureties would but for this provision have effect of so relieving us.
	The Bank also agrees that the Employer at its option shall be entitled to enforce this
	Guarantee against the Bank as a principal debtor, in the first instance without proceeding
	against the Contractor and notwithstanding any security or other guarantee that the
	Employer may have in relation to the Contractor's liabilities.
	This Guarantee shall not be determined or affected by liquidation or winding up, dissolution
	or change of constitution or insolvency of the Contractor but shall in all respects and for all
	purposes be binding and operative until payment of all money payable to the Employer in
	terms thereof. This guarantee will not be discharged due to the change in the constitution of
	the Bank or the Contractor(s).
	We, BANK lastly undertake not to revoke this guarantee during its currency except
	with the previous consent of the Employer in writing.
	Notwithstanding anything to the contrary contained hereinabove:
	The liability of the Bank under this Guarantee shall not exceed
) This Guarantee shall be valid up to ⁵
c) Unless the Bank is served a written claim or demand on or before6 all
	rights under this guarantee shall be forfeited and the Bank shall be relieved and discharged
	from all liabilities under this guarantee irrespective of whether or not the original bank
	guarantee is returned to the Bank.
\ \ \ / -	Book have a superficience this Comments and allow and the condension of the
	Bank, have power to issue this Guarantee under law and the undersigned as a
auiy	authorized person has full powers to sign this Guarantee on behalf of the Bank.
	Data Day of
	Date Day of for(<u>indicate the name of the Bank</u>)
	(Signature of Authorised signatory)
	(Signature of Authorised signatory)



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¹ADDRESS OF THE VENDOR /CONTRACTOR / SUPPLIER .

Notes:

- 1 The expiry of claim period shall be at least 3 months more than the validity date. It may be ensured that the same is in line with the agreement/ contract entered with the Vendor.
- 2 The BG should be on Non-Judicial Stamp paper/e-stamp paper of appropriate value as per Stamp Act prevailing in the State(s) where the BG is submitted or is to be acted upon or the rate prevailing in the State where the BG was executed, whichever is higher. The Stamp Paper/e-stamp paper shall be purchased in the name of Vendor/Contractor/Supplier /Bank issuing the guarantee.
- 3 In Case of Bank Guarantees submitted by Foreign Vendors:
- a. From Nationalized/Public Sector / Private Sector/ Foreign Banks (BG issued by Branches in India) can be accepted subject to the condition that the Bank Guarantee should be enforceable in the town/city or at nearest branch where the Unit is located i.e. Demand can be presented at the Branch located in the town/city or at nearest branch where the Unit is located.
- b. From Foreign Banks (wherein Foreign Vendors intend to provide BG from local branch of the Vendor country's Bank)
- **b.1** In such cases, in the Tender Enquiry/ Contract itself, it may be clearly specified that Bank Guarantee issued by **any of the Consortium Banks only** will be accepted by BHEL. As such, Foreign Vendor needs to make necessary arrangements for issuance of Counter-Guarantee by Foreign Bank in favour of the Indian Bank's (BHEL's Consortium Bank) branch in India. It is advisable that all charges for issuance of Bank Guarantee/ counter-Guarantee should be borne by the Foreign Vendor. The tender stipulation should clearly specify these requirements.
- **b.2** In case, Foreign Vendors intend to provide BG from Overseas Branch of our Consortium Bank (e.g. if a BG is to be issued by SBI Frankfurt), the same is acceptable. However, the procedure at sl.no. b.1 will required to be followed.

² DETAILS ABOUTTHE NOTICE OF AWARD/CONTRACTREFERENCE

³ CONTRACT VALUE

⁴ BG AMOUNTIN FIGURES AND WORDS

⁵ VALIDITY DATE (At least 3 months more than completion period)

⁶ DATE OF EXPIRY OF CLAIM PERIOD (At least 3 months more than the present date of validity of BG)

DIVISION.....

Running Account Bill (Para 4.3.1 of Works Accounts Manual)

Departmental Bill No.
Date:
Division:
Sub-Division:
Date of written order to Period of work covered in this commence the Work:
Date of commencement

of work:

Due date of completion as per

agreement

Date of approval of Competent Authority for time extension as applicable

I. ACCOUNT OF WORK EXECUTED

Adhoc pay	payment for work not previously		sly Item No. of Descripti		Quantity as	Quantity	Rate	Unit	Payment on the basis of	Quantity executed	Payment on the basis of	Remarks
	measured **		work wo		per	executed			actual measurement upto	since last RA bill	actual measurement since last	
Total as	Since last	Total upto			agreement	upto date			date		running account bill	
per last	running	date										
running	account bill											
account												
bill												
	!											
1	۱ ၁	3	4	5	6	7	Q	a	10	11	12	13

** 1. Whenever payment is made on adhoc basis without actual measurements the amount in whole rupees should be entered in columns 1 to 3 only and not in columns 7 to 12

2. Whenever there is an entry in column 12 on the basis of actual measurement, the whole of the amount previously paid without detailed measurement should be adjusted by a minus entry in column 2 equivalent to the amount shown in column 1, so that the total upto date in column 3 may become nil.

Total value of work done upto date

(A) ---
Deduct value of work shown on the last Running Account Bill

(B) ---
Net value of work done since last Running Account Bill

(C) ----

Rupees (in words) Only

Note:

Name of the Contractor

Name of the Work:

Sanctioned Estimate:

Contract Agreement No.:

Code No.:

Wherever adhoc payments to contractors against running bills are made in accordance with the extant Works Policy, the amount so paid shall be adjusted.

Dated:

Form WAM 6 (Contd).

Signature of Engineer in Charge

Designation:

Date:

, To	otal value of work actually measured as per Account No. I, Column 10	_	I				
, To							
		(A)					
	otal upto date adhoc payment for work covered by approximate or plan measurements per Account I, Col. 3	(B)					
4. To	otal upto date payments [(A)+(B)]	(C)		***************************************			
	otal amount of payments already made as per entry (D) of last Running Account Bill No.						
5	dated forwarded to the Accounts Department on	(D)					
6. Ba	alance [(C) - (D)]						
7. Pa	syments now to be made:						
	a) by cash / cheque						
	by deduction for value of materials supplied by BHEL vide Annexure A						
	attached						
	c) by deduction for hire of tools and plant vide Annexure B attached						
	d) by deduction for other charges vide Annexure C attached						
	e) by deduction on account of security deposit						
	f) by deduction on account of Income Tax			**********			
Note:	Amounts relating to items 4 to 6 above should be entered in column II a	and those relati	ng to item 7 in o	olumn I. The amount shown against item 6 and the total of item 7 should agree with each other.			
			OF THE ENGINE	TRINI CUARCE			
			OF THE ENGINE	ek in Charge de byand are reorded at page			
1 "	ie measurements on which the entries in column 7 to 12 of Part I of this bill (Account of Wor of Measurement Book No (Name and		e based were ma	ide byand are reorded at pag			
- C	*		th the terms and	conditions, schedules, specifications and drawings etc. forming part of the contract agreement, subject to deviations			
1 2 1	cluded in the deviation statement (Annexure D)	accordance wit	an the terms une	continuous, seneaules, specimentons and arawings etc. forming part of the contract agreement, susject to deviations			
				me work has actually been done in connection with several items and the value of the such work is, in no case, less inticipation of, and subject to the results of, detailed measurement which will be made as soon as possible.			
4 Ce	Certified that measurements by Engineer-incharge and test check of prescribed percentage of measurements by the concerned superior authorities has been carried out.						
151	Certified that there are no pending recoveries from the contractor on account of chargeable items (e.g T&P, consumables, material, etc.) issued either by BHEL or by the customer and other recoveries like power, water, quarter, tax liability towards declaration forms etc.						
6 C		pto a	nd there are no	recoveries pending from the contractor on account of such issues in excess of requirement for execution of work as			
 	ertified that there is no pending recovery for damaged material issued free of cost.						
8 C	ertified that the contractor has fulfilled all the requirements as per contract with reference t	o statutory obli	igations (PF, ESI,	Minimum Wages, BOCW, Insurance etc.), support services such as service manpower, computer system , T&P etc			

Signature of Contractor

Date:

Form WAM 6 (Contd).

Date:

IV. CERTIFICATE OF THE SENIOR ENGINEER

1	Certified that the measurements have been check measured to the prescribed extent byentries have been initialed in the Measurement Book. (vide pages)	at site and also by the undersigned and the relevant	
2	Certified that all the measurements recorded in the measurement book have been correctly bille	ed for	
3	Certified that all recoverable amounts in respect of materials tools and plant etc. and other charg	ges have been correctly made vide annexures A to C attached.	
Certified fo	or payment * of Rs (Rupees only)		
* Here spe	ecify the net amount payable.		
Date:			Signature of Senior Engineer
	V. ENTRI	ES TO BE MADE IN THE FINANCE DEPARTMENT	
			Code No.:
Accounts E	Bill No dated		ALLOCATION
Entered in	Journal Book vide entry No dated	Estimate No : Debit	Credit
Passed for	Rs	(Gross amount)	(Deductions)
Less Dedu	ctions Rs	Name of Work :	
Net amou	nt payable Rs	Account code head	
(Rupees	only)		
Payable to	Shri / M/s by cheque / cash		
Entered in	Contractors ledger No Page	Total	
	Assistant	Accountant	Finance Executive

Date:

Date:

ANNEXURE A

Statement	Statement showing details of materials issued to the contractor Shri / M/S in respect of Contract Agreement / Work Order NoDated													
Sl.No.	Stores Issue Voucher No. and date	Issue voucher No. and date allotted by stores to the SIV	Description of material issued issued to the contractor	Quantity issued		Quantity actually incorporated in the work	Balance quantity with contractor		If recoverable from the contractor					
				Free	Chargeable		Free	Chargeabl	Rate at which recoverable	Amount recoverable	Amount recovered upto previous bill	Balance now recovered	Remarks	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
							lTo	otal						
Certified th	at	(balance quantity of free	ssue material as per Col. 8 abo	ve) is physicall	y available with	the Contractor.					!			
Signature	of Contractor				Signature of E	ngineer in Charge				Signature of Senio	or Engineer			
Date:					Date:					Date:				
						ANNEXURE B								
Statement	showing tools a	nd plant issued to the contra	ctor Shri/M/s			in respec	t of Contr	act Agreei	ment No	Dated				
Sl. No.	Sl. No. Description of Tools and Plant Issued Period for which issued				Rate at whi	Amount recoverable			nt recovered upto previous bill	Balance Recovered now		Remarks		
1		2	3			4		5		6	7		8	
						TOTAL								
Signature of Contractor Date:				Signature of E	ngineer in Charge	Signature of Senior Engineer Date:								

								ANNEX	URE C							
Statement	Statement showing details of other recoveries to be made from the contractor Shri/M/sin respect of contract Agreement No															
S. No.		Particulars		Ur	nit	Qua	ntity	Ra	te	Amour	nt recoverable	Amount recover		Amount now re	covered	Remarks
1		2		3	3	4	4	5			6	7		8		9
1	Water charges															
2	Electricity charg	es														
3	Seignorage char	ges														
4	Medical charges	5														
-	Cost of empty g	unny bags ar	d empty													
5	containers not r	eturned														
6																
7																
8																
	•			-		-							-			
								TOT	ΓAL							
												•	•			•
Signature	of Contractor						Signature of E	Engineer in (Charge					Signature o	f Senior Engi	neer
Date :							Date:							Date:		
Date .							Date.							Date.		
								ANNEX	IDE D							
								EVIATION S		т						
							U	EVIATION 3	IAIEWEN	'			_			
Name of t	he Contractor:												Cont	ract Agreement	No	
Name of V	Vork:												Date	:		
					I	ı		Т			ı	1		1		
						Total quantity										
	Description of		Quantity as	Quantity as	Quantity	anticipated	Rate as per	Rate as	Amoun	t as per	Amount as	Amount further	Total Amour			Reason for deviation with
S. No.	Item	Unit	per	r evecuted rurrner on agreement evecuted agreement evec			executed	anticipated	anticipated of		rence	authority, if any				
			agreement	CACCUICU	anticipated	completion	agreement	CACCUICU				aparou	completion	ו		,
						completion										
														Excess	Savings	
						•					•		•		·	
1	2	3	4	5	6	7	8	9	1	.0	11	12	13	14	15	16
	•		•									•	•			

Signature of Engineer in Charge Signature of Senior Engineer Date : Date :

Form WAM 7

BHARAT HEAVY ELECTRICALS LIMITED DIVISION.....

.....And Final Bill

(Para 4.3.2 of Works Accounts Manual)

Departmental Bill No:		
Date:		
Name of the Contractor:	Division:	Sub-Division:
Name of the Work:	Date of Written order to commence the work:	
Sanctioned Estimate:	Date of commencement of the Work:	
Contract Agreement/ Work Order No:	Dated:	Due date of completion as per Agreement:
Date of actual completion of the world		

I. ACCOUNT OF WORK EXECUTED

	Adhoc payment for work not previously measured **		Item no. of the	Description of work	Quantity as per	Quantity executed	Rate	Unit	Payment on the basis of actual measurement		Payment on t he basis of actual measurement since	
Total as per last running account bill	1	date	agreement / work order		agreement	upto date			upto date		last running account bill	
1	1 2 3 4 5 6 7 8 9 10 11 12 13											

** Whenever there is an entry in column 12 on the basis of actual measurement, the whole of the amount previously paid without detailed measurement should be adjusted by a minus entry in column 2 equivalent to the amount shown in column 1, so that the total upto date in column 3 may become nil.

Total value of work done upto date

(A)

Deduct value of work shown on the last Running Account Bill

(B)

Net value of work done since last Running Account Bill

(C)

————

Rupees (in words)Only

Form WAM 7 (Contd.)

1	Total value of work actually measured as per Account No. I column 10	(A)		
2	Deduct amount of payments already made as per last running account bill No dated	(B)	***********	
3	Payment now to be made [(A) - (B)]	(C)		
4	Deduct amounts recoverable from the contractor on account of : a) Materials supplied by BHEL vide Annexure A attached b) Hire of tools and plant vide Annexure B attached c) Other charges vide Annexure C attached d) Income Tax Total Deductions	_		
5	Balance			
6	Refunds of Security Deposit			
7	Net amount to be paid to the contractor			
	Net value Rupees (in words)		Only	
agreemen	t/work order.			
				Signature of the Contractor
				Date:
	III CERTIFICATE OF T	HE ENGINEE	R IN CHARGE	
1. The mea	asurements on which the entries in columns 7 to 11 of Part I of this bill (Account of work executed) are base	d were made	by	
	are recorded at pagesof measurement book No			(Name and Designation)
2. A stater	ment showing the quantities of stores issued to the contractor (whether free or on recovery basis) and their	disposal is at	tached.	
				Clause A. C. Carlos and Jack Street
Date:				Signature of Engineer incharge
				Designation:

II. MEMORANDUM OF PAYMENTS

IV CERTIFICATE OF THE SENIOR ENGINEER 1. Certified that I have personally inspected the work and that the work has been physically completed on the due date in accordance with the terms and conditions, schedules, specifications and drawings etc., forming part of the contract

agreement, subject to the deviations noted in Deviation Statement (Annexure D).					
2. Certified that the measurements have been check measured to the prescribed e					
undersigned at site and the relevant entries have been initiated in the measureme	nt book (vide pages)	(Name and Designa	ation)
3. Certified that the methods of measurement are correct.					
4. Certified that the measurements have been technically checked with reference					
5. Certified that the measurements recorded in the measurement book have been					
6. Certified that all recoverable amounts in respect of stores, tools and plant, wate	er, electricity charges etc.	have been correctly m	ade vide Annexures A to 0	and that there are no oth	er demands outstanding against the contractor on this
contract.					
7. Certified that the issues of all stores as per statement attached (whether charge	ed to the contractor or di	rect to the work) have	been technically checked a	and represent fair and reas	sonable issues for the items of work executed vide
Annexure E.					
8. Certified that all statutory requirements including PF, ESI, Minimum wages, Insu	urance, GST, BOCW, etc.	are complied with by	the Contractor. This should	be duly backed by the rel	evant documents.
Certified for payment of * Rs(Rupees(Rupees		only).			
*Here specify the net amount payable				Signature of Senio	or Engineer
				Date	
				5410	
	IV ENTRIES TO	BE MADE IN THE FINA	NICE DEDARTMENT		
	IV ENTRIES TO	DE WADE IN THE FINA	INCE DEPARTIMENT		
			1		1
		Account code head	Debit	Credit	
			(Gross Amount)	(Deductions)	1
			(==========	(=======	1
]
Passed forRs					
Less DeductionsRs					+
					_
Net Amount PayableRsRs					
(Rupeesonly)					
		L .	I		1
		TOTAL]
					-
Assistant	Accountant			Finance Exec	utive
Deter	D-4			D-4	
Date:	Date:			Date:	

ANNEXURE A Part I

Statement sh	owing details	of materials	issued to the co	ontractor Shri /	M/S		in res	pect of Contr	act Agre	ement / Work	Order No		Dated		an	l covered b	the agree	ment.
SI.No.	Stores Issue Voucher No. and date	oucher No. date allotted by stores to issued issued to the		ed to the	to the Quantity issued incorp			Quantity actually incorporated in the work			If recoverable from t he Contractor							
											Rate at v		Amou recover:		Amount recovered upto previous bill) I	ce now vered	Remarks
1	2	I	3	4	1	5		l 6		7	8		9		10		l1	12
		!		<u> </u>	·											-		
										Total								
Signature of (Contractor						Signature	of Engineer in	Charge				Signature o	of Senior	Engineer			
Date:							Date:						Date:					
								ANNEXU										
								Part	<u> </u>									
Statement sh	owing details	of materials	issued to the co	ontractor Shri /	M/S		i	n respect of C	ontract /	Agreement / V	Vork Order N	No	Date	d	and not co	vered by th	e agreeme	ent
	1																	
SI.No	Stores Issue No.and		Issue Voucher allotted by sto				Quantity issued		Quant actua ncorpora the w	illy ated in	ue Rate		Amount recovered u		d upto Bala	nce now overed	Remarks	
1	2		3					5	6		7	8	3	9		10		11
	1										Т						1	
								A		rtmental Char Wherever app OTAL								
Signature of	Contractor					Signature of	Engineer-in	-Charge							Signati	re of Senio	r Engineer	
Date:						Date:									Date:			
	materials reco	vered in this	s bill should be	shown against	item 4 (a) of t		um of payr	nents. The an	nounts o	f taxes and de	partmental o	charges	recovered i	in this bil		rporated ir	Annexure	C.

ANNEXURE B

Statement s	howing tools and plant issued to the contractor S	ihri /M/S		in respect of contract Agre	ement / Work O	rder No	Date	d				
Sl.No.	Description of Tools and Plant Issued	Period for which iss	ued Rate	at which recovery is to be made	Amount recoverable		Amount recovered upto previous bill		Balance now recovered		Remarks	
1	2	3		4	5		6		7		8	
	+											
				TOTAL							1	
						'						
Signature of	Contractor			Signature of Engine	er-in-Charge					Signature	of Senior Engineer	
	contractor			-	er iii enarge						or serior Engineer	
Date				Date						Date		
				ANNEXURE C								
Statement s	howing details of other recoveries to be made fro	om the contractor Shri/	M/s	In respect o	of Contract Agree	ment / W	ork Order No		Dated			
		<u> </u>		<u> </u>								
Sl.No.	Particulars	Unit	Quantity	Rate	I I		nt recovered upto previous bill Amoun		unt now recovered		Remarks	
	2	3	4	5	6		7		8		9	
1	2	3	- 4	, ,					•	l	9	
1	Water charges					1						
2	Electricity charges					+						
3	Medical charges											
	Cost of empty gunny bags and empty containe	rs not										
4	returned	.51101										
5						+						
6												
7												
			TOTAL							1		
						-				•		
Signature of	Contractor			Signature of Engine	or in Chargo							
oignature of	CONTRACTOR			orgradure of Engine	er in Griarge							

Signature of Contractor

Signature of Engineer in Charge

Date

Date

Date

Signature of Engineer in Charge

Date

Signature of Engineer in Charge

Date

Date

Date

ANNEXURE D DEVIATION STATEMENT

Name of the Contractor:	Contract Agreement/Work Order No.
Name of the Work:	Date:

SL. No.	Description of Item	Unit	Quantity as per agreement	Quantity as executed	Rate as per agreement	Rate as executed	Amount as per agreement	Amount as executed	Difference		Reason for the deviation with authority, if any
									Excess	Savings	
1	2	3	4	5	6	7	8	9	10	11	12
	•	•									

Signature of Engineer in Charge Signature of Senior Engineer Date: Date:

ANNEXURE E

Statement showing the consumption of materials issued to the contractor Shri/M/s...

Name of the Work: . in respect of Contract Agreement / Work Order No. ...Dated..

					ON RECOVERY BAS	IS						
SL. No.	Description of material	Unit	Quantity actually issued	Quantity actually incorporated in the work	Balance	Particulars of disposal of balance	Quantity to be issued as per consumption approved data (difference for work actually done & 8)		nption ence colum 5	Rate chargeable for excess/short consumption, if any	Amount Recoverable for excess/short consumption, including materials not returned, if any	Remarks
								More	Less			
1	Cement											
2	Bricks											
3	Wood											
4	Asbestos Sheet											
5	Iron Material											
6												

Signature of Contractor Signature of Senior Engineer Signature of Engineer in Charge Date: Date: Date: Note

1. The quantities shown in columns 4 and 5 above should tally with those shown in columns 5 & 6 respectively of Annexure A (Part I and II)

2. Data statement of theoretical consumption should be attached in support of quantity specified in column 8.

ANNEXURE F

		_
- [1
	Statement showing details of materials issued to the contractor Shri/M/sin respect of Contract Agreement / Work Order Nodateddateddateddateddated	ı

Name of the Work:

FREE OF COST

SI.No	Stores Issue Voucher No.	Description of material	Unit	Quantity issued	Quantity required as per data	Quantity consumed in the work	Balance (if any)	Nature of disposal for the balance	Rate chargeable for material not returned	Amount recoverable for material not returned	Remarks
1	2	3	4	5	6	7	8	9	10	11	12
										·	
										·	

Signature of Contractor Signature of Engineer in Charge Signature of Engineer in Charge Signature of Engineer in Charge Date: Date:

ANNEXURE G

QUESTIONNAIRE TO BE ANSWERED BY THE ENGINEER IN CHARGE AND SENIOR ENGINEER (Correct particulars and answers to be recorded)

- 1. Name of the Work:
- 2. Name of the Contractor:
- 3. Date of commencement of the Work:
- 4. Contract agreement /Work Order No. and date:
- 5. Reference to the supplementary Agreement No. if any:
- 6. Whether administrative approval and technical sanction has been accorded by the competent authority? If so, cite reference?
- 7. Whether sanction of the competent authority and financial concurrence of the Finance Department for award of the work has been accorded? If so, cite reference
- 8. Whether the work has been completed in time? If not whether penalty has been levied or sanction of the competent authority for extension of time granted and communicated to the Finance Department with reasons for grant of extension? (Due and actual date of completion of the work and reference to letter No. and date granting the extension of time should be given).
- 9. (a) Whether the rates allowed in the bill have been checked with the contract agreement?
- (b) Whether the rates for extra/supplemental items have been approved by the competent authority and the sanction communicated to the Finance Department together with rate analysis? If so, cite reference
- 10. Whether deviations have been approved by the competent authority? If yes, give reference to the approval; if not, give reasons.
- 11. Whether the rates of recovery of stores issued to the contractor which are not provided for in the contract agreement have been settled in consultation with Finance?
- 12. Whether discrepancies pointed out by the Finance department in the stores statement have been reconciled and accepted by the Finance Department?
- 13. Whether materials issued to the contractor in excess of the theoretical requirements have been returned to the Stores department and the No. and date of such returned stores vouchers have been shown in Stores statement? If not, whether the cost of such excess materials has been recovered at the prescribed rate? Whether consumption statements in respect of materials chargeable to the work have been attached to the bill?
- 14. Whether consumption of materials shown has been technically checked by Senior Engineer?
- 15. Whether materials issued and used in the work is not less than that required for consumption in work according to our specifications? If consumption is less, whether necessary recovery has been made in the hill?
- 16. Whether measurements have been checked by the Engineer and Senior Engineer to the extent required and certificates of check recorded in the measurement books?
- 17. Whether contractor has signed the bill and the measurement books without reservations? If not, whether reasons have been intimated to the Finance Department?
- 18. Whether arithmetical calculations have been checked and certificate recorded in the measurement books by a person other than the one who calculated initially?
- 19. Whether any work was done at the risk and cost of the contractor and whether such cost has been recovered from him? Give particulars.
- 20. Whether all advance payments on running accounts have been recovered?
- 21. Whether all the recoveries due for services given to the contractor like rent of accommodation, water charges, electricity charges have been recovered and whether payments made by the company on behalf of the contractor have been adjusted?
- 22. Whether the files containing abstracts from measurement books/standard measurement books have been completed/undated?
- 23. Whether hire charges for tools & plant have been recovered and the statement of hire charges with full details attached?
- 24. Whether the certificate of workmanship and completion of work according to specifications, drawings etc. is recorded by Engineer Incharge/Senior Engineer and whether recoveries have been made for defective works, if any?
- 25. Whether all corrections in the bill/measurement books etc. have been neatly made and attested and there are no overwriting?
- 26. Whether final measurements have been taken as soon as possible after completion of the work and the certificate of completion issued? If not, whether reasons for delay have been recorded and communicated to finance department?
- 27. In respect of quantities reduced in the final bill as compared to the running payment, whether adequate reasons have been recorded and communicated to finance department?
- 28. Whether the expenditure has been classified correctly according to heads of account recorded in the sanctioned estimate?
- 29. Whether the work has been completed within the estimated cost? If not, what is the percentage of excess over the sanctioned estimate/ administrative approval? In case the excess is beyond the competency of the Senior Engineer, what action has been taken for obtaining the approval of the authority competent to sanction the excess?
- 30. (a) If the contractor has furnished bank guarantee in lieu of cash security deposit towards proper execution of works and guarantee against defects during the maintenance period, whether the period of currency of the bank guarantee covers the entire maintenance period?
- (b) If not whether security deposit has been proposed to be recovered from the final bill?
- 31. Whether all the previous audit objections raised on running account bills have been settled? If so, cite references.

Signature of Engineer in Charge	Signature of Senior Engineer
Data	Data

Form WAM 7 (Contd.)

Annexure-A

ANNEXURE TO MODEL CONCILIATION CLAUSE FOR CONDUCT OF CONCILIATION UNDER THE BHEL CONCILIATION SCHEME, 2018

BRIEF PROCEDURE FOR CONDUCT OF CONCILIATION PROCEEDINGS

- 1. The proceedings of Conciliation shall broadly be governed by Part-III of the Arbitration and Conciliation Act 1996 or any statutory modification thereof and as provided herein:
- 2. The party desirous of resorting to Conciliation shall send an invitation/notice in writing to the other party to conciliate specifying all points of Disputes with details of the amount claimed. The party concerned shall not raise any new issue thereafter. Parties shall also not claim any interest on claims/counter-claims from the date of notice invoking Conciliation till the conclusion of the Conciliation proceedings.
- 3. The party receiving the invitation/notice for Conciliation shall within 30 days of receipt of the notice of Conciliation intimate its consent for Conciliation along with its counter-claims, if any.
- 4. The Conciliation in a matter involving claim or counter-claim (whichever is higher) up to Rs 5 crores shall be carried out by sole Conciliator nominated by BHEL while in a matter involving claim or counter-claim (whichever is higher) of more than Rs 5 crores Conciliation shall be carried out by 3 Conciliators nominated by BHEL.
- 5. The Parties shall be represented by only their duly authorized in-house executives/officers and neither Party shall be represented by a Lawyer.
- 6. The first meeting of the IEC shall be convened by the IEC by sending appropriate communication/notice to both the parties as soon as possible but not later than 30 days from the date of his/their appointment. The hearings in the Conciliation proceeding shall ordinarily be concluded within two (2) months and, in exceptional cases where parties have expressed willingness to settle the matter or there exists possibility of settlement in the matter, the proceedings may be extended by the IEC by a maximum of further 2 months with the consent of the Parties subject to cogent reasons being recorded in writing.
- 7. The IEC shall thereafter formulate recommendations for settlement of the Disputes supported by reasons at the earliest but in any case within

- 15 days from the date of conclusion of the last hearing. The recommendations so formulated along with the reasons shall be furnished by the IEC to both the Parties at the earliest but in any case within 1 month from the date of conclusion of the last hearing.
- 8. Response/modifications/suggestions of the Parties on the recommendations of the IEC are to be submitted to the IEC within time limit stipulated by the IEC but not more than 15 days from the date of receipt of the recommendations from the IEC.
- 9. In the event, upon consideration, further review of the recommendations is considered necessary, whether by BHEL or by the other Party, then, the matter can be remitted back to the IEC with request to reconsider the same in light of the issues projected by either/both the Parties and to submit its recommendations thereon within the following 15 days from the date of remitting of the case by either of the Parties.
- 10. Upon the recommendations by the Parties, with or without modifications, as considered necessary, the IEC shall be called upon to draw up the Draft Settlement Agreement in terms of the recommendations.
- 11. When a consensus can be arrived at between the parties only in regard to any one or some of the issues referred for Conciliation the draft Settlement Agreement shall be accordingly formulated in regard to the said Issue(s), and the said Settlement Agreement, if signed, by the parties, shall be valid only for the said issues. As regards the balance issues not settled, the parties may seek to resolve them further as per terms and conditions provided in the contract.
- 12. In case no settlement can be reached between the parties, the IEC shall by a written declaration, pronounce that the Conciliation between the parties has failed and is accordingly terminated.
- 13. Unless the Conciliation proceedings are terminated in terms of para 22 (b), (c) & (d) herein below, the IEC shall forward his/its recommendations as to possible terms of settlement within one (1) month from the date of last hearing. The date of first hearing of Conciliation shall be the starting date for calculating the period of 2 months.

- 14. In case of 3 members IEC, 2 members of IEC present will constitute a valid quorum for IEC and meeting can take place to proceed in the matter after seeking consent from the member who is not available. If necessary, videoconferencing may be arranged for facilitating participation of the members. However, the IEC recommendations will be signed by all members. Where there is more than one (1) Conciliator, as a general rule they shall act jointly. In the event of differences between the Members of IEC, the decision/recommendations of the majority of the Members of IEC shall prevail and be construed as the recommendation of the IEC.
- 15. The Draft Settlement Agreement prepared by the IEC in terms of the consensus arrived at during the Conciliation proceedings between the Parties shall be given by the IEC to both the parties for putting up for approval of their respective Competent Authority.
- 16. Before submitting the draft settlement agreement to BHEL's Competent Authority viz. the Board Level Committee on Alternative Dispute Resolution (BLCADR) for approval, concurrence of the other party's Competent Authority to the draft settlement agreement shall be obtained by the other party and informed to BHEL within 15 days of receipt of the final draft settlement agreement by it. Upon approval by the Competent Authority, the Settlement Agreement would thereafter be signed by the authorized representatives of both the Parties and authenticated by the members of the IEC.
- 17. In case the Draft Settlement Agreement is rejected by the Competent Authority of BHEL or the other Party, the Conciliation proceedings would stand terminated.
- 18. A Settlement Agreement shall contain a statement to the effect that each of the person(s) signing thereto (i) is fully authorized by the respective Party(ies) he/she represents, (ii) has fully understood the contents of the same and (iii) is signing on the same out of complete freewill and consent, without any pressure, undue influence.
- 19. The Settlement Agreement shall thereafter have the same legal status and effect as an arbitration award on agreed terms on the substance of the dispute rendered by an arbitral tribunal passed under section 30 of the Arbitration and Conciliation Act, 1996.
- 20. Acceptance of the Draft Settlement Agreement/recommendations of the Conciliator and/or signing of the Settlement Agreement by BHEL shall

however, be subject to withdrawal/closure of any arbitral and/or judicial proceedings initiated by the concerned Party in regard to such settled issues.

- 21. Unless otherwise provided for in the agreement, contract or the Memorandum of Understanding, as the case may be, in the event of likelihood of prolonged absence of the Conciliator or any member of IEC, for any reason/incapacity, the Competent Authority/Head of Unit/Division/Region/Business Group of BHEL may substitute the Conciliator or such member at any stage of the proceedings. Upon appointment of the substitute Conciliator(s), such reconstituted IEC may, with the consent of the Parties, proceed with further Conciliation into the matter either de-novo or from the stage already reached by the previous IEC before the substitution.
- 22. The proceedings of Conciliation under this Scheme may be terminated as follows:
 - a. On the date of signing of the Settlement agreement by the Parties; or,
 - b. By a written declaration of the IEC, after consultation with the parties, to the effect that further efforts at conciliation are no longer justified, on the date of the declaration; or,
 - c. By a written declaration of the Parties addressed to the IEC to the effect that the Conciliation proceedings are terminated, on the date of the declaration; or,
 - d. By a written declaration of a Party to the other Party and the IEC, if appointed, to the effect that the Conciliation proceedings are terminated, on the date of the declaration.
 - e. On rejection of the Draft Settlement Agreement by the Competent Authority of BHEL or the other Party.
- 23. The Conciliator(s) shall be entitled to following fees and facilities:

S1 No	Particulars	Amount					
1	Sitting fees	Each Member shall be paid a Lump					
		Sum fee of Rs 75,000/- for the whole					
		case payable in terms of paragraph					
		No. 27 herein below.					
2	Towards drafting of	In cases involving claim and/or					
	settlement	counter-claim of up to Rs 5crores.					
	agreement	Rs 50,000/- (Sole Conciliator)					

S1 No	Particulars	Amount
		In cases involving claim and/or counter-claim of exceeding Rs 5 crores but less than Rs 10 crores. Rs 75,000 (per Conciliator) In cases involving claim and/or counter-claim of more than Rs 10 crores. Rs 1,00,000/- (per Conciliator) Note: The aforesaid fees for the drafting of the Settlement Agreement shall be paid on Signing of the Settlement Agreement after approval of the Competent Authority or Rejection of the proposed Settlement
		Agreement by the Competent Authority of BHEL.
3	Secretarial expenses	Rs 10,000/- (one time) for the whole case for Conciliation by a Sole Member IEC. Where Conciliation is by multi member Conciliators –Rs 30,000/- (one time)- to be paid to the IEC
4	Travel and transportation and stay at outstation i) Retired Senior Officials of other Public Sector Undertakings (pay scale wise equivalent to or more than E-8 level of BHEL)	As per entitlement of the equivalent officer (pay scale wise) in BHEL.
	Others	As per the extant entitlement of whole time Functional Directors in BHEL.

S1 No	Particulars	Amount				
		Ordinarily, the IEC Member(s) would				
		be entitled to travel by air Economy				
		Class.				
5	Venue for meeting	Unless otherwise agreed in the				
		agreement, contract or the				
		Memorandum of Understanding, as				
		the case may be, the venue/seat of				
		proceedings shall be the location of				
		the concerned Unit / Division /				
		Region / Business Group of BHEL.				
		Without prejudice to the seat/venue				
		of the Conciliation being at the				
		location of concerned BHEL Unit /				
		Division / Region / Business Group,				
		the IEC after consulting the Parties				
		may decide to hold the proceedings				
		at any other place/venue to facilitate				
		the proceedings. Unless, Parties				
		agree to conduct Conciliation at				
		BHEL premises, the venue is to be				
		arranged by either Party alternately.				

- 24. The parties will bear their own costs including cost of presenting their cases/evidence/witness(es)/expert(s)on their behalf. The parties agree to rely upon documentary evidence in support of their claims and not to bring any oral evidence in IEC proceedings.
- 25. If any witness(es) or expert(s) is/are, with the consent of the parties, called upon to appear at the instance of the IEC in connection with the matter, then, the costs towards such witness(es)/expert(s) shall be determined by the IEC with the consent of the Parties and the cost so determined shall be borne equally by the Parties.
- 26. The other expenditures/costs in connection with the Conciliation proceedings as well as the IEC's fees and expenses shall be shared by the Parties equally.
- 27. Out of the lump sum fees of Rs 75,000/- for Sitting Fees, 50% shall be payable after the first meeting of the IEC and the remaining 50% of the Sitting Fees shall be payable only after termination of the conciliation proceedings in terms of para 22 hereinabove.

- 28. The travelling, transportation and stay at outstation shall be arranged by concerned Unit as per entitlements as per Serial No. 3 of the Table at para 23 above, and in case such arrangements are not made by the BHEL Unit, the same shall be reimbursed to the IEC on actuals limited to their entitlement as per Serial No. 4 of the Table at Para 23 above against supporting documents. The IEC Member(s) shall submit necessary invoice for claiming the fees/reimbursements.
- 29. The Parties shall keep confidential all matters relating to the conciliation proceedings. Confidentiality shall extend also to the settlement agreement, except where its disclosure is necessary for purposes of its implementation and enforcement or as required by or under a law or as per directions of a Court/Governmental authority/regulatory body, as the case may be.
- 30. The Parties shall not rely upon or introduce as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the Disputes that is the subject of the Conciliation proceedings:
 - a. Views expressed or suggestions made by the other party in respect of a possible settlement of the Disputes;
 - b. admissions made by the other party in the course of the Conciliator proceedings;
 - c. proposals made by the Conciliator;
 - d. The fact that the other Party had indicated his willingness to accept a proposal for settlement made by the Conciliator.
- 31. The Parties shall not present the Conciliator(s) as witness in any Alternative Dispute Resolution or Judicial proceedings in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
- 32. None of the Conciliators shall act as an arbitrator or as a representative or counsel of a Party in any arbitral or judicial proceeding in respect of a Disputes that is/was the subject of that particular Conciliation proceeding.
- 33. The Parties shall not initiate, during the Conciliation proceedings, any arbitral or judicial proceedings in respect of a Disputes that is the subject matter of the Conciliation proceedings except that a Party may initiate arbitral or judicial proceedings where, in his opinion, such proceedings are necessary for preserving his rights including for preventing expiry of period of limitation. Unless terminated as per the provisions of this Scheme, the Conciliation proceedings shall continue

notwithstanding the commencement of the arbitral or judicial proceedings and the arbitral or judicial proceedings shall be primarily for the purpose of preserving rights including preventing expiry of period of limitation.

34. The official language of Conciliation proceedings under this Scheme shall be English unless the Parties agree to some other language.

Format 2 to BHEL Conciliation Scheme, 2018

FORMAT FOR SEEKING CONSENT FOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC

To.

M/s. (Stakeholder's name)
Sub: Resolution of the Disputes through conciliation by Independent Expert Committee (IEC).
Ref: Contract No/MoU/Agreement/LOI/LOA& date
Sir,
With reference to above referred Contract/MoU/Agreement/LOI/LOA, you have raised certain Disputes/claims. Vide your letter dated you have requested BHEL to refer the Disputes/claims to IEC for Conciliation.
We are enclosing herewith Format (3) for giving consent and the terms and conditions of BHEL Conciliation Scheme, 2018 governing conciliation through IEC. You are requested to give your unconditional consent to the said terms and conditions of the Scheme by returning the same duly sealed and signed on each page. On receipt of your consent, matter will be put to the Competent Authority for consideration and decision.
Please note that BHEL has also certain claims against you (if applicable). BHEL reserves its right to agree or not to agree conciliation of the said disputes through BHEL and this letter is being issued without prejudice to BHEL's rights and contentions available under the contract and law.
Yours faithfully,
Representative of BHEL

Format 3 to BHEL Conciliation Scheme, 2018 FORMAT FOR GIVING CONSENT BY CONTRACTOR/VENDOR/CUSTOMER/COLLABORATOR/CONSORTI UM PARTNERSFOR REFERRING THE DISPUTES TO CONCILIATION THROUGH IEC

To,

BHEL					
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	esolution of lommittee (IEC	Disputes throug C).	gh Conciliatio	n by Indepe	endent Expert
With r	reference to al	/Agreement/LO pove referred con are still unpaid	itract, our follo	wing bills/ir	nvoices/claims
SL.	Claim Description	Bill submitted to BHEL (no. and date)	Amount of the bill/claim	Amount received from BHEL	Outstanding Amount
claim We h condi throu	s to IEC for C ereby agree a tions of BHI	uest you to kind onciliation. and give our une the conciliation ave signed the sa	nconditional co Scheme, 201	onsent to tl 8 governing	ne terms and
					ours faithfully,
				(Signature	e with stamp)
		Au	ithorized Repi		of Contractor h designation Date

Format 5 to BHEL Conciliation Scheme, 2018 STATEMENT OF CLAIMS/COUNTER CLAIMS TO BE SUBMITTED TO THE IEC BY BOTH THE PARTIES

1. C	hronolo	gy of t	the Dis	sputes
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- 2. Brief of the Contract/MoU/Agreement/LOI/LOA
- 3. Brief history of the Disputes:
- 4. Issues:
- 5. Details of Clam(s)/Counter Claim(s):

SI. No.	Description of claim(s)/Counter Claim	Amount (in INR)Or currency applicable in the contract	Relevant contract clause

6. Basis/Ground of claim(s)/counter claim(s) (along with relevant clause of contract)

Note— The Statement of Claims/Counter Claims may ideally be restricted to maximum limit of 20 pages. Relevant documents may be compiled and submitted along with the statement of Claims/Counter Claims. The statement of Claims/Counter Claims is to be submitted to all IEC members and to the other party by post as well as by email.

Bill of Qunatity cum Price Schedule (ANNEXURE-I)

Name of Project: - 765kV AIS Pkg- SS-46T for (i) Establishment of 765/400/ 220kV Barmer-I including 400kV, 2x125 MVAr Reactor (ii) Extn at 765kV Sirohi for termination of Barmer-I PS- Sirohi PS 765 kV D/c line (iii) Extn of 400kV Fatehgarh-III for termination of Fatehgarh-III (Section-2) PS - Barmer-I PS 400 kV D/c line associated with "Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex) Part-F" through tariff based competitive bidding (TBCB) route.

NAME OF WORK: SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN

TENDER SPEC. NO.: TBSM/BARMER/SI/TENDER/24-25, DATE: 01.03.2025

S. No.	Description of Item	Total Quantity	Unit	Unit Rate	Amount
I: 765	/400/220kV BARMER S/S (NEW)				
I-A. So	il Investigation alongwith Soil Resistivity Measurement				
1	Mobilization & Demobilisation of necessary equipment, tools, plants, manpower, etc., for conducting soil investigation at a project site. (Payment against this item shall be made for the oneway distance of the project site from the registered office of the bidder or from the other project site of BHEL, as may be applicable. Relevant document for the proof of distance shall be furnished with the claim.)	1000	KM	₹ 57.00	₹ 57,000.00
(a)	Drilling boreholes of 150mm dia. at specified locations including performing SPT, collecting disturbed and undisturbed samples, recording water table etc., all complete as per specification including backfilling of boreholes as per direction of Engineer-In-Charge.	20	Nos.	₹ 17,000.00	₹ 3,40,000.00
(b)	Add extra for rock drilling in boreholes where rock is encountered, all complete as per specification.	200	RM	₹ 2,433.00	₹ 4,86,600.00
(c)	Add extra for drilling boreholes beyond 15m depth.	50	RM	₹ 1,933.00	₹ 96,650.00
3	Making trial pits of $2 \text{ m x } 2 \text{ m}$ in size extending to 4 m depths at specified locations and taking undisturbed samples as per specification including backfilling of pit as per direction of Engineer-In-Charge	10	Nos.	₹ 5,667.00	₹ 56,670.00
4	Conducting plate load test at specified location (loading intensity upto 8kg/cm2 or 40mm settlement whichever occurs earlier) all complete as per specification using plate of following size including backfilling as per direction of Engineer-In-Charge:-				
(a)	450mmX450mm	1	Nos.	₹ 42,333.00	₹ 42,333.00
(b)	600mmX600mm	2	Nos.	₹ 45,667.00	₹ 91,334.00
5	Conducting Field California Bearing Ratio tests at specified locations complete as per specification.	4	Nos	₹ 9,250.00	₹ 37,000.00
6	Conducting laboratory tests on soil and water samples all complete as per specification. (Payment against this item shall be made based on the total no. of boreholes driven as per Item No.2(a). However, soil sampling from Trial & Plate Load Test Pits shall be done as per BHEL Standard Technical Specification / customer's Technical Specification. Their sampling & lab testing charges are deemed to be included in the respective items.)	20	Per Bore- hole	₹ 1,750.00	₹ 35,000.00
7	Conducting Electrical resistivity test (ERT) as per specification including all necessary arrangement required to conducting the test as per direction of Engineer-in-charge.	59	Nos	₹ 3,667.00	₹ 2,16,353.00
8	Furnishing 04 hard copies of final report duly signed by the vendor/expert for each project.	1	LS	₹ 5,333.00	₹ 5,333.00
	Total amount for Part-I-A				₹ 14,64,273.00

Bill of Qunatity cum Price Schedule (ANNEXURE-I)

Name of Project: - 765kV AIS Pkg- SS-46T for (i) Establishment of 765/400/ 220kV Barmer-I including 400kV, 2x125 MVAr Reactor (ii) Extn at 765kV Sirohi for termination of Barmer-I PS- Sirohi PS 765 kV D/c line (iii) Extn of 400kV Fatehgarh-III for termination of Fatehgarh-III (Section-2) PS - Barmer-I PS 400 kV D/c line associated with "Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex) Part-F" through tariff based competitive bidding (TBCB) route.

NAME OF WORK: SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN

TENDER SPEC. NO.: TBSM/BARMER/SI/TENDER/24-25, DATE: 01.03.2025

S. No.	Description of Item	Total Quantity	Unit	Unit Rate	Amount	
I-B. T	Copographical Survey with Contours					
1	Detailed topographical survey of entire substation land, construction of bench marks, transfer of the reduced levels & coordinates to the bench marks (As per Enclosed Drawing), preparation of survey report, survey map & contour plan, all complete as per mentioned scope of work including cost of mobilization & demobilization, manpower, tools & tackles, equipment, etc. as per direction of Engineer-In-Charge.	586800	Sqm	₹ 0.53	₹ 3,11,004.00	
2	Furnishing optimum quantity of Earthwork in cutting & filling w.r.t. proposed FGLs alongwith supporting calculations and drawing as per the Clause 1.4.0 and as per direction of Engineer-In-Charge.		Lot	₹ 15,000.00	₹ 15,000.00	
3	Furnishing Survey Map in AUTOCAD as well as in Excel Sheet showing Reduced level at grid of 5mx5m, hard copies of survey map, optimum quantity of Earthwork in cutting & filling with proposed F.G.L alongwith supporting calculations and Survey Report as mentioned in the Clause 1.4.0 (draft report/drawing through email and 04 copies of final report/drawings in hard copies) and as per direction of Engineer-In-Charge.	1	Lot	₹ 18,333.00	₹ 18,333.00	
	Total amount for Part-I-B				₹ 3,44,337.00	
	Grand Total amount of Subject work: Part-I-A + Part-I-B - (Excluding GST)					

Va		

Print

Help

Percentage BoQ

Tender Inviting Authority: BHEL, TBG- SubContracting Department, Sector 16A Noida, UP

Name of Work: TENDER FOR "SOIL INVESTIGATION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER S/S (NEW) OF PGCIL AT BARMER IN RAJASTHAN"

Contract No: TBSM/BARMER/SI/TENDER/24-25 DATE 01.03.2025

Name of the						
Bidder/ Bidding Firm /						
Company :						
				CHEDULE		
(This BOQ ter				loaded after filling t e Bidder Name and		else the bidder is liable to be rejected for this tender.
NUMBER #	TEXT #	NUMBER #	TEXT #	NUMBER	NUMBER#	TEXT #
SI. No.	Item Description	Quantity	Units	Estimated Rate in Rs. P	TOTAL AMOUNT Without Taxes in Rs. P	TOTAL AMOUNT In Words
11	2	4	5	6	53	55
	Total amount as per rates in BOQ (as per Annexure-I) for "Soil Investigation & Topography Survey work at 765/400/220kV Barmer S/S (New) of PGCIL at Barmer in Rajasthan."- Excluding GST	1.000	Nos	1808610.00		INR Eighteen Lakh Eight Thousand Six Hundred & Ten Only
Total in Figures					1808610.00	INR Eighteen Lakh Eight Thousand Six Hundred & Ten Only
Quoted Rate in	Figures		Select		0.000	INR Zero Only
Quoted Rate in	Words				INR Zero Only	

DOCUMENT No. TB-434-607-001-SI&TS Rev-0 Prepared Checked Approved TYPE OF DOC. TECHNICAL SPECIFICATION NAME VKA PNK PLK TITLE SPECIFICATION FOR SOIL INVESTIGATION AND TOPOGRAPHY SURVEY WORK AT POWERGRID BARMER, SUB-STATION IN RAJASTHAN CUSTOMER POWER GRID CORPORATION OF INDIA LIMITED PROJECT 765kV AIS Pkg SS-46T: (I) 765/400/220kV BARMER S/S (NEW), (II) EXTN. OF 765kV SIROHI S/S, (III) EXTN. OF 400kV FATEHGARH-III S/S IN RAJASTHAN CONTENTS SECTION NO. TITLE PAGE NO. 1. SCOPE, SPECIFIC TECHNICAL REQUIREMENT & SCHEDULE OF ITEMS 2. STANDARD TECHNICAL SPECIFICATION FOR ELECTRICAL RESISTIVITY TEST (ANNEXURE-I) 6 PAGES	TYPE OF DOC. TECHNICAL SPECIFICATION NAME VKA PNK PLK TITLE SIGN DATE QV. 2.25 DATE QV. 2.25 DATE QV. 0. No. POWER GRID BARMER, SUB-STATION IN RAJASTHAN CUSTOMER POWER GRID CORPORATION OF INDIA LIMITED PROJECT 765kV AIS Pkg SS-46T: (I) 765/400/220kV BARMER S/S (NEW), (II) EXTN. OF 765kV SIROHI S/S, (III) EXTN. OF 400kV FATEHGARH-III S/S IN RAJASTHAN CONTENTS SECTION NO. TITLE PAGE NO. 1. SCOPE, SPECIFIC TECHNICAL REQUIREMENT & SCHEDULE OF ITEMS 2. STANDARD TECHNICAL SPECIFICATION TECHNICAL SPECIFICATION FOR ELECTRICAL RESISTIVITY TEST 6 PAGES	ग्रेस्पईएम 111,111	BHARAT HEAT TRANSMISSION PROJECTS				IDA (U.P.).
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To Copies O/C

Distribution

SECTION -1

SCOPE, SPECIFIC TECHNICAL REQUIREMENT AND SCHEDULE OF ITEMS

1.1.0 SCOPE

The scope of work under this specification is to carry out detailed Geotechnical Investigation Test, Electrical Resistivity Test & Topographical Survey with contours and preparation of a detailed report required for construction of substations for POWERGRID at 765/400/220kV Barmer Sub-station (New) in Rajasthan.

1.1.1 GEOTECHNICAL INVESTIGATION

The Contractor shall perform a detailed soil investigation to arrive at sufficiently accurate conclusion regarding general as well as specific information about the soil profile and the necessary soil parameters of the site, in order to design and construct the foundation of the various structures safely and rationally. A report to the effect shall be submitted by the Contractor for Employer's specific approval giving details regarding data proposed to be utilized for the design.

The Soil Investigation along with Soil Resistivity Measurement of the substation shall generally include the followings: -

- (i) The work shall include mobilization of necessary equipment, providing necessary engineering supervision and technical personnel, skilled and unskilled labour, etc. as required to carry out the entire field work as well as laboratory investigation.
- (ii) Carrying out geotechnical investigation and electrical resistivity test.
- (iii) Analysis and interpretation of data collected and preparation of a detailed soil report including specific recommendations for the type of foundations and the safe bearing capacity for different sizes of foundations at different founding strata starting from 0.5M from existing ground level for the various structures of the substation.
- (iv) All the field & laboratory data shall be recorded in the proformas recommended in IS Codes/Customer approved protocols.
- (v) All work shall be carried out as per Standard Technical Specification with relevant IS code (latest revision).
- (vi) The Bidder shall make his own arrangement for locating the coordinates and various test positions in the field (including clearance of the site at the location of test positions, if necessary) all as per the information supplied to him and also for determining the reduced level of these

locations with respect to the benchmark indicated by the Employer. The test locations shall be furnished during execution of work.

- (vii) The Bidder shall make his own arrangement for water and electricity (if required) and arrangement for putting up his man & material.
- (viii) Grass cutting/Jungle cleaning required for carrying out soil investigation work shall be deemed to be included in the bidder scope.
- (ix) Bidder must visit the site before quoting the rate to have fair idea of site. Drawing & locations of bore-holes / test points shall be provided to the successful bidder. Some test locations may be finalized at the site after successful award of the contract during detail engineering.
- (x) All laboratory test shall be carried out in the customer approved Testing lab/NABL accredited Testing lab/ Engineering College or Institute Testing Lab. The contractor shall submit a request letter alongwith the name/names of the Testing Labs to customer through BHEL site, well in advance and before the start of collection of the samples from the field, for approval purpose.
- (xi) All Geotechnical investigation reports must be signed and stamped by qualified Geotechnical Engineer/Consultant even if the reports have been prepared by NABL accredited test labs.
- (xii) After collection of samples from bore holes, trial pits, plate load test, etc. shall be backfilled as per direction of Engineer-In-Charge.
- (xiii) All samples, to be tested in the customer approved lab, shall be properly collected & packed as may be applicable, and loaded in the transport vehicle as per direction of Engineer-In-Charge/customer.
- (xiv) BHEL/customer representative may visit the Testing Lab for verifications of the samples received from the field and testing being done in the Testing Lab.
- (xv) Any other work required to complete above work.

1.1.2 TOPOGRAPHY SURVEY

The Topographical Survey of the substation shall generally include the followings: -

- (i) Surveying of the substation land boundary with co-ordinates of each corner points and dimension of each side by total station / GPS. Marking of locations of any permanent structure near the boundary.
- (ii) Surveying of total area of the substation land with contours.
- (iii) Verification of Input data/Existing data provided by BHEL/Customer or collection of data from any agency.

(iv) A grid system of co-ordinates shall be established so that grid line will be parallel to the boundary of Sub-Station.

- (v) 5m x 5m grids shall be considered for spot level and at closer distances wherever pits, undulations, etc. are met. Suitable contour interval as instructed by Engineer-in-charge based on the ground profile shall be followed for contour maps.
- (vi) Preparation of the drawing in AUTOCAD showing:
- (vii) All-natural features like ditches and water bodies.
- (viii) All botanicals feature like trees, truncated tree.
- (ix) All man-made features like existing buildings, pump house, canal, road, overhead electric lines, electric towers, electrical pylons, wells, pipe line, height of electric wire, and all other permanent structures.
- (x) The Bidder shall make his own arrangement for locating the coordinates in the field all as per the information supplied to him and also for determining the reduced levels of these locations from nearby Rail Gate/ National Highway Authority of India (Collection of data from NHAI is in the scope of Bidder) by using latest equipment /practice in order to save time.
- (xi) Masonry pillars shall be constructed (Drawing enclosed) at suitable places in the area to serve as bench mark for the execution of work. These bench mark shall be connected with G.T.S of any other permanent Bench mark approved by the Engineer-In-Charge. Minimum 06 bench marks and adequate number of grid pillar as per direction of Engineer-In-Charge shall be constructed in isolation area adjacent to substation area as per directions of engineer-in-charge. The reduced levels & coordinates shall be clearly marked on the bench marks.
- (xii) All the field data shall be recorded in the proforma recommended in IS Codes /CPWD/Good Standard Practices/Customer approved Field Books duly signed by Engineer-In-Charge.
- (xiii) The contractor shall submit the calculations (including sofy copy) of the optimum quantity of earthwork in cutting & filling using spot level to finalize the Finished Ground level (FGL) as per direction of Engineer in charge. The contractor shall use the prevailing software being used in the industry for earthwork quantity calculation purpose. The contractor shall carry out the calculations manually also if required by the customer.
- (xiv) The work shall include mobilization of necessary equipment, providing necessary engineering supervision and technical personnel, skilled and unskilled labour, etc. as required to carry out the entire field work.
- (xv) The Bidder shall make his own arrangement for water and electricity (if required) and arrangement for putting up his man & material.
- (xvi) Grass cutting/Jungle cleaning required for carrying out survey work, Bench mark work etc. shall deemed to be included in the bidder scope.

(xvii) Bidder must visit the site before quoting the rate to have fair idea of site.

(xviii) Any other work required to complete above work.

1.2.0 SPECIFIC TECHNICAL REQUIREMENT

1.2.1 The specific technical requirements for the execution of Geotechnical Investigation, Soil Resistivity Measurement & Topographical survey with contours shall be as per Standard Specification / I.S. Codes/ CPWD Specification / Customer Specification / good standard of practices necessary to fulfil the objective.

1.3.0 BILL OF QUANTITIES

- 1.3.1 The Bill of Quantity cum price schedule shall be as per page 6 to page 7.
- 1.3.2 The quantities indicated in the 'Bill of Quantity cum price schedule' are indicative and can vary upto any extent, even may get deleted. Contractor shall not be entitled for any claim for any such variation in the quantities.
- 1.3.3 The provision of Bill of Quantity cum price schedule, specifications and drawings shall be read in conjunction with each other and in case of conflict amongst them, the clarification shall be obtained from the Engineer-in-charge whose decision shall be final and binding.
- 1.3.4 No extra work shall be carried out without prior approval in soil resistivity measurement and geotechnical investigation.

1.4.0 DOCUMENT SUBMISSION

- 1.4.1 The contractor shall submit complete soil investigation report consisting of information regarding the geological detail of the site, summarized observations, bore-log details, test data & reports, earth resistivity measurement reports, ground water level, conclusions, recommendation of footing type with supporting calculations, recommended type of foundations for various structures, safe bearing capacity for different sizes of isolated footings at different depths, capacity of pile foundations including suitable type and dimension of pile, etc. as per Technical specification & direction of Engineer-In-Charge.
- 1.4.2 Recommendation on removal or detainment of expansive soil under the structures / road, if expansive soil is met, including recommendation for any special treatment and specification for the materials to be used, construction method and equipment to be deployed.
- 1.4.3 Recommendations regarding slope of excavation & dewatering schemes, if required, and comments on the nature of soil & ground water with due regard to protective measures.

1.4.4 The contractor shall submit survey map of the site (AUTOCAD drawing along with Excel copy of the plot) indicating grid lines and contour lines, demarcating all permanent features like roads, railways, waterways, building, pump house, power lines, natural streams, nallah, well, fence lines, trees, etc. The contractor shall also submit the survey report consisting of general site observation such location of access roads, rivers, irrigation canals, existing drainage pattern of the site, possibility of water logging, mentioning reduced level of high flood level, any rock outcrops in the site, water level in the wells, etc. as per direction of Engineer-In-Charge / Customer's Divisional Engineer.

- 1.4.5 The contractor shall submit the calculation of the optimum quantity of earthwork in cutting & filling using spot level to finalize the finished Ground level (FGL) as per direction of Engineer in charge. Entire Substation land area may be considered at the same FGL in a single terrace system or at the multiple FGLs in a multiple terrace system to optimize the earthwork quantity in cutting & filling. The contractor shall use the prevailing software being used in the industry for earthwork quantity calculation purpose. The contractor shall carry out the calculations manually also if required by the customer. The contractor will be required to submit the calculation of the optimum quantity of earthwork in cutting & filling as per direction of BHEL/customer.
- 1.4.6 The contractor shall submit Soft copies (Excel sheet, AutoCAD file) of all above drawings & documents through e-mail or any other document sharing mode at the drafting stage but shall submit Soft copies (Excel sheet, AutoCAD file) of all above drawings, calculations, final report & input/field data alongwith their hard copies as per BOQ. Reports shall be submitted by the contractor for approval purpose within a month of the completion of the field works.

1.5.0 BILL SUBMISSION

1.5.1 On completion of the work & submission of the final report, the contractor shall submit the final bill to BHEL site. BHEL site will do the verification and processing of the bill. The contractor may submit the Running Account (RA) Bill, if he chooses, to BHEL site on the completion of major works & their certification by BHEL site. In case of pendency of approval / acceptance of the final report at the end of the customer, BHEL site shall process the final bill submitted by the contractor by retaining 10% of the total billed amount, which shall be released by BHEL site on approval/acceptance of the final report by the customer.

Bill of Quantity cum Price Schedule

Name of Project: - 765kV AIS Pkg- SS-46T for (i) Establishment of 765/400/ 220kV Barmer-I including 400kV, 2x125 MVAr Reactor (ii) Extn at 765kV Sirohi for termination of Barmer-I PS- Sirohi PS 765 kV D/c line (iii) Extn of 400kV Fatehgarh-III for termination of Fatehgarh-III (Section-2) PS - Barmer-I PS 400 kV D/c line associated with "Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex) Part-F" through tariff based competitive bidding (TBCB) route.

I: 765/400/220kV BARMER S/S (NEW)

S. No.	Description of Item	Total Quantity	Unit	Estimated Unit Rate excl GST (Rs)	Estimated Value excl GST (Rs)
I-A) S	oil Investigation alongwith Soil Resistivity Measurement				
1	Mobilization & Demobilisation of necessary equipment, tools, plants, manpower, etc., for conducting soil investigation at a project site. (Payment against this item shall be made for the oneway distance of the project site from the registered office of the bidder or from the other project site of BHEL, as may be applicable. Relevant document for the proof of distance shall be furnished with the claim.)	1000	KM	57.00	57000.00
2(a)	Drilling boreholes of 150mm dia. at specified locations including performing SPT, collecting disturbed and undisturbed samples, recording water table etc., all complete as per specification including backfilling of boreholes as per direction of Engineer-In-Charge.	00	Nos.	17000.00	340000.00
2(b)	Add extra for rock drilling in boreholes where rock is encountered, all complete as per specification.	200	RM	2433.00	486600.00
2(c)	Add extra for drilling boreholes beyond 15m depth.	50	RM	1933.00	96650.00
3	Making trial pits of 2 m x 2 m in size extending to 4 m depths at specified locations and taking undisturbed samples as per specification including backfilling of pit as per direction of Engineer-In-Charge		Nos.	5667.00	56670.00
4	Conducting plate load test at specified location (loading intensity upto 8kg/cm2 or 40mm settlement whichever occurs earlier) all complete as per specification using plate of following size including backfilling as per direction of Engineer-In-Charge:-				
(a)	450mmX450mm	1	Nos.	42333.00	42333.00
(b)	600mmX600mm	2	Nos.	45667.00	91334.00
5	Conducting Field California Bearing Ratio tests at specified locations complete as per specification.	4	Nos	9250.00	37000.00
6	Conducting laboratory tests on soil and water samples all complete as per specification. (Payment against this item shall be made based on the total no. of boreholes driven as per Item No.2(a). However, soil sampling from Trial & Plate Load Test Pits shall be done as per BHEL Standard Technical Specification / customer's Technical Specification. Their sampling & lab testing charges are deemed to be included in the respective items.)	20	Per Bore- hole	1750.00	35000.00
7	Conducting Electrical resistivity test (ERT) as per specification including all necessary arrangement required to conducting the test as per direction of Engineer-in-charge.		Nos	3667.00	216353.00
8	Furnishing 04 hard copies of final report duly signed by the vendor/expert for each project.	1	LS	5333.00	5333.00
	Total amount (Rs) for Part-I (A)				1464273.00

Bill of Quantity cum Price Schedule

Name of Project: - 765kV AIS Pkg- SS-46T for (i) Establishment of 765/400/ 220kV Barmer-I including 400kV, 2x125 MVAr Reactor (ii) Extn at 765kV Sirohi for termination of Barmer-I PS- Sirohi PS 765 kV D/c line (iii) Extn of 400kV Fatehgarh-III for termination of Fatehgarh-III (Section-2) PS - Barmer-I PS 400 kV D/c line associated with "Transmission system for evacuation of power from Rajasthan REZ Ph-IV (Part-2: 5.5 GW) (Jaisalmer/Barmer Complex) Part-F" through tariff based competitive bidding (TBCB) route.

I: 765/400/220kV BARMER S/S (NEW)

S. No.	Description of Item	Total Quantity	Unit	Estimated Unit Rate excl GST (Rs)	Estimated Value excl GST (Rs)
I-B) T	opographical Survey with Contours				
1	Detailed topographical survey of entire substation land, construction of bench marks, transfer of the reduced levels & coordinates to the bench marks (As per Enclosed Drawing), preparation of survey report, survey map & contour plan, all complete as per mentioned scope of work including cost of mobilization & demobilization, manpower, tools & tackles, equipment, etc. as per direction of Engineer-In-Charge.	586800	Sqm	0.53	311004.00
2	Furnishing optimum quantity of Earthwork in cutting & filling w.r.t. proposed FGLs alongwith supporting calculations and drawing as per the Clause 1.4.0 and as per direction of Engineer-In-Charge.		Lot	15000.00	15000.00
3	Furnishing Survey Map in AUTOCAD as well as in Excel Sheet showing Reduced level at grid of 5mx5m, hard copies of survey map, optimum quantity of Earthwork in cutting & filling with proposed F.G.L alongwith supporting calculations and Survey Report as mentioned in the Clause 1.4.0 (draft report/ drawing through email and 04 copies of final report/ drawings in hard copies) and as per direction of Engineer-In-Charge.	1	Lot	18333.00	18333.00
	Total amount (Rs) for Part-I (B)				344337.00
	Total amount (Rs) for Part-I				1808610.00

SECTION -2

STANDARD TECHNICAL SPECIFICATION

(a) Standard Tech Spec for Soil Investigation (Doc. No. TB-XXX-607-003-STD-SI –Rev-00) enclosed.

STANDARD TECHNICAL SPECIFICATION FOR SOIL INVESTIGATION

2.1.0 BORE HOLES

Drilling of bore holes of 150 mm dia. in accordance with the provisions of IS: 1892, to 15m depth or to refusal whichever occurs earlier. By refusal it shall mean that a standard penetration blow count (N) of 100 is recorded for 30 cm penetration. In case of refusal within 3M depth, minimum depth of boring shall be 3 M. However, in case where deep pile foundations are envisaged, the depths have to be regulated as per codal provisions. In cases where rock is encountered, coring in bore holes shall be carried out to 3 M in bed rock and continuous core recovery is achieved.

Performing Standard Penetration Tests at approximately 1.5m intervals in the bore holes starting from 0.5 m below ground level onwards and at every change of stratum. The disturbed samples from the standard penetrometer shall also be collected for necessary tests.

Collecting undisturbed samples of 100/75 mm diameter 450 mm long from the bore holes at intervals of 2.5m and every change of stratum starting from 0.5 m below ground level onwards in clayey strata.

The depth of Water Table, if encountered, shall be recorded in each borehole. In case the soil investigation is carried out in winter/summer, the water table for rainy season shall be collected from reliable sources and recorded in the report.

All samples, both disturbed and undisturbed, shall be identified properly with the bore hole number and depth from which they have been taken.

The sample shall be sealed at both ends of the sampling tubes with wax immediately after the sampling and shall be packed properly and transported to the laboratory without any damage or loss.

The logging of the boreholes shall be compiled immediately after the boring is completed and a copy of the borelog shall be handed over to the site representative of BHEL/Customer.

2.2.0 DYNAMIC CONE PENETRATION TEST

Dynamic cone penetration tests shall be carried out with the circulation of bentonite slurry at specified locations and a continuous record of penetration resistance (NG) up to 15.00m from natural ground level or the refusal shall be maintained by the Contractor. IS: 4968 (Part-2) shall be followed for carrying out the test and for reporting of results.

The location for the tests shall be as directed by BHEL/Customer. On completion of the test, the results shall be presented as a continuous record as the numbers of blows required for every 300 mm penetration of the cone into the soil.

2.3.0 TRIAL PITS

Trial pits shall be excavated at specified locations. The trial pits shall be 2m x 2m in size extending to 4m in depth, or as specified by BHEL/Customer. Undisturbed samples shall be taken from the trial pits as per the direction of the BHEL/Customer.

2.4.0 PLATE LOAD TEST

Plate load test shall be conducted to determine the bearing capacity, modulus of subgrade reaction and load/settlement characteristics of soil at shallow depths by loading a plane and level steel plate kept at the desired depth and measuring the settlement under different loads, until a desired settlement takes place or failure occurs, The specification for the equipment and accessories required for conducting the test, the test procedure, field observations and reporting of results shall conform to IS: 1888, Modulus of subgrade reaction shall be conducted as per IS: 9214. The location(s) and depth of the test shall be as specified by BHEL/Customer. (Depth shall be upto a maximum of 3.00m below the natural ground level).

Undisturbed tube samples shall be collected at 0.5 m and 2.5m depths from natural ground level for carrying out laboratory tests.

The size of the pit in plate load test shall not be less than five times the plate size and shall be taken upto the specified depth. All provisions regarding excavation and visual examination of pit shall apply here.

Unless otherwise specified the reaction method of loading shall be adopted. Settlement shall be recorded from dial guages placed at four diametrically opposite ends of the test plate.

The load shall be increased in stages. Under each loading stage, record of Time vs Settlement shall be kept as specified in IS: 1888.

Backfilling of the pit shall be carried out as per the directions of the BHEL/Customer. Unless otherwise specified the excavated soil shall be used for this purpose. In cases of gravel-boulder or rocky strata, respective relevant codes shall be followed for tests.

2.5.0 FIELD CALIFORNIA BEARING RATIO TEST

This test shall be carried out to obtain the properties of soil required for the construction of roads. The equipments and accessories required for carrying out the test, test procedure, recording of observations and presentation of results shall conform to IS: 2720 part XXXI.

2.6.0 WATER SAMPLE

Representative samples of ground water shall be taken when ground water is first encountered before the addition of water to aid drilling of boreholes. The samples

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shall be of sufficient quantity for chemical analysis to be carried out and shall be stored in air-tight containers.

2.7.0 BACK FILLING OF BORE HOLES

On completion of each hole, the Contractor shall backfill all bore holes as directed by the BHEL/Customer. The backfill material can be the excavated material.

2.8.0 LABORATORY TESTS

- 2.8.1 The laboratory tests shall be carried out progressively during the field work after sufficient number of samples have reached the laboratory in order that the test results of the initial bore holes can be made use of in planning the later stages of the field investigation and quantum of laboratory tests.
- 2.8.2 All samples brought from field, whether disturbed or undisturbed shall be extracted/prepared and examined by competent technical personnel, and the test shall be carried out as per the procedures laid out in the relevant I.S. Codes.

The following laboratory tests shall be carried out:

- (i) Visual and Engineering Classification.
- (ii) Liquid limit, plastic limit and shrinkage limit for C-\$\phi\$ soils.
- (iii) Natural moisture content, bulk density and specific gravity.
- (iv) Grain size distribution.
- (v) Swell pressure and free swell index determination.
- (vi) California bearing ratio.
- (vii) Consolidated drained test with pore pressure measurement.
- (viii) Chemical tests on soil and water to determine the carbonates, sulphates, nitrates, chlorides, Ph value, and organic matter and any other chemical harmful to the concrete foundation.
- (ix) In case of rock samples following tests shall also be conducted:
 - Rock quality designation (RQD), RMR.
 - UCC test.
 - Point load index test.

2.8.2 ELECTRICAL RESISTIVITY TEST:

Technical specification for ERT shall be as per annexure-I.

2.9.0 TEST RESULTS AND REPORTS

2.9.1 The Contractor shall submit the detailed report wherein information regarding the geological details of the site, summarized observations and test data, bore logs, and conclusions & recommendations on the type of foundations with supporting calculations for the recommendations are given. Initially, the report shall be submitted by the Contractor in draft form and after the draft report is approved, the final report in desired no. of copies shall be submitted. The test data shall bear the signatures of the contractor and site representative of BHEL/Customer.

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- **2.9.2** The report shall include, but not limited to the following:
 - (i) A plan showing the locations of the exploration work i.e. bore holes, dynamic cone penetration tests, trial pits, plate load test, etc.
 - (ii) Bore Logs: Bore logs of each bore holes clearly identifying the stratification and the type of soil stratum with depth. The values of Standard Penetration Test (SPT) at the depths where the tests were conducted on the samples collected at various depths shall be clearly shown against that particular stratum.
 - (iii) Test results of field and laboratory tests shall be summarized strata wise as well in combined tabular form. All relevant graphs, charts tables, diagrams and photographs, if any, shall be submitted along with report. Sample illustrative reference calculations for settlement, bearing capacity, pile capacity shall be enclosed.
 - (iv) Recommendations: The report should contain specific recommendations for the type of foundation for the various structures envisaged at site. The Contractor shall acquaint himself about the type of structures and their functions from BHEL/Customer. The observations and recommendations shall include, but not limited to the following:
 - (a) Geological formation of the area, past observations or historical data, if available, for the area and for the structures in the nearby area, fluctuations of water table etc.
 - **(b)** Recommended type of foundations for various structures. If piles are recommended, the type, size and capacity of pile and groups of piles shall be given after comparing different types and sizes of piles and pile groups.
 - (c) Allowable bearing pressure on the soil at various depths for different sizes of the foundations based on shear strength and settlement characteristics of soil with supporting calculations. Minimum factor of safety for calculating net safe bearing capacity shall be taken as 2.5 or as advised by BHEL/Customer.
 - (d) Recommendation regarding liquefaction characteristics of soil.
 - **(e)** Recommendations regarding slope of excavations and dewatering schemes, if required.
 - **(f)** Comments on the chemical nature of soil and ground water with due regard to deleterious effects of the same on concrete and steel and recommendations for protective measures.
 - (g) If expansive soil is met with, recommendations on removal or retainment of the same under the structure, road, drains, etc. shall be given. In the latter case detailed specification of any special treatment required including specification or materials to be used, construction method, equipments to be deployed etc. shall be furnished. Illustrative diagram of a symbolic foundation showing details shall be furnished.
 - (h) Recommendations for additional investigations beyond the scope of

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the present work, if considered necessary.

(i) In case of foundation in rocky strata, type of foundation and recommendation regarding rock anchoring etc. should also be given based on RMR value.

2.4 <u>ELECTRICAL RESISTIVITY TEST:</u>

The resistivity of earth varies over a wide range depending on its moisture content, temperature, salt content and compactness. Therefore earth resistivity test shall be conducted preferably during the dry season in order to get conservative results.

2.4.1 TEST LOCATION

In the evaluation of earth resistivity for the substations, at least eight test directions shall be chosen from the centre of the substation to cover the entire area including the future area. The number of test points shall be as per approved drawing.

2.4.2 PRINCIPLE OF TEST

Wenner's four electrode method shall be used. In this method, four small electrodes shall be buried in four small holes in the earth along a straight line at equal intervals. A test current (I) by earth resistivity tester shall be passed between two outer electrodes and the voltage difference (V) between the two inner electrodes shall be measured. The test current (I) thus flowing into the earth, produces an electric field proportional to its density and to the resistivity of the soil. The voltage (V) measured between the inner electrodes is proportional to the field. Consequently, the resistivity will be proportional to the ratio of the voltage to current. Thus the resistivity shall be calculated from the following equation.

$$\rho_{a} = \frac{4\pi aR}{1 + 2a - a} - \frac{a}{\sqrt{(a^{2} + 4b^{2})}}$$

Where,

 ρ_a is the apparent resistivity of the soil in Ω -m

R is the measured resistance in Ω

a is the distance between adjacent electrodes in metres

b is the depth of the electrodes in m

2.4.3 TEST PROCEDURE

In the selected test point and chosen direction, four electrodes with insulated connecting wires shall be driven into the earth along a straight line of equal intervals (a). The depth of the electrodes in the earth shall be of the order of 15 cm to 20 cm. The megger shall be placed on a steady and approximately level base, the link between terminals P1 and C1 shall be opened and the four electrodes connected to the instrument terminals. An appropriate range on the instrument shall be selected to obtain clear readings avoiding the two ends of the scale as far as possible.

Resistivity shall be calculated by substituting the value of R in the above equation. The test shall be repeated in a chosen direction with a number of different electrode spacing, increasing from 2m to 50m preferably in the steps of 2, 5, 10, 15, 25 and 50m. When the spacing is increased gradually from low values, at a stage, it may be found that the resistivity reading is more or less constant irrespective of the increase in the electrode spacing. The resistivity for this spacing is noted and taken as the resistivity for that direction. In a similar manner, resistivity for at least eight equally spaced directions from the centre of the test points shall be measured. These measurements shall be repeated for all test points.

Number of ERT point shall be as per Bid Price Schedule

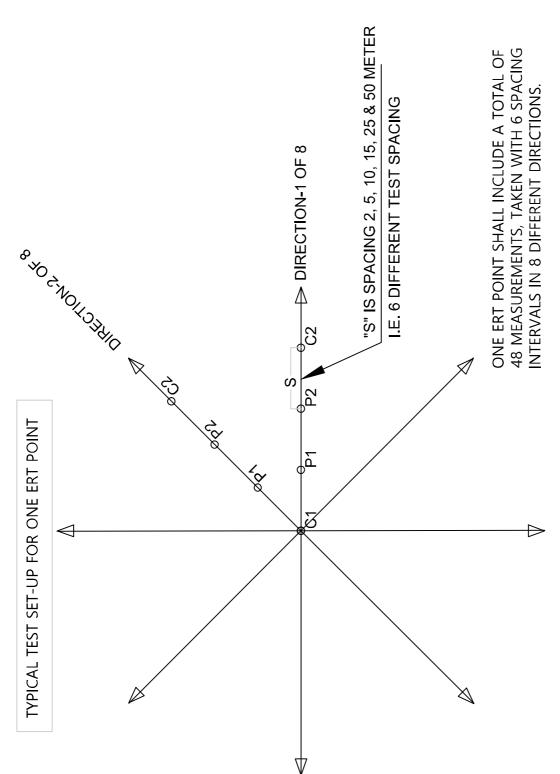
NOTES:-

- i. Soil resistivity points shall preferably be one number in each 100mx100m grid and number of test points shall be such that the entire substation including the future area is covered.
- ii. Average resistivity value of all eight directions shall be considered for design of earthing system.
- iii. Soil resistivity measurement may be done in dry season. Small amount of water may be applied at electrodes for making proper contact between the electrodes and soil.

iv Please refer attached document title "TYPICAL TEST SET-UP FOR ONE ERT POINT" for detailed scope

v. For any project-specific requirements, the number of directions can be reduced from 8 to either 4 or 2 directions. Measurements shall be adjusted pro-rata based on the number of directions, with 8 directions considered as one unit.

vi. Reference Standard: IS: 3043 "CODE OF PRACTICE FOR EARTHING"



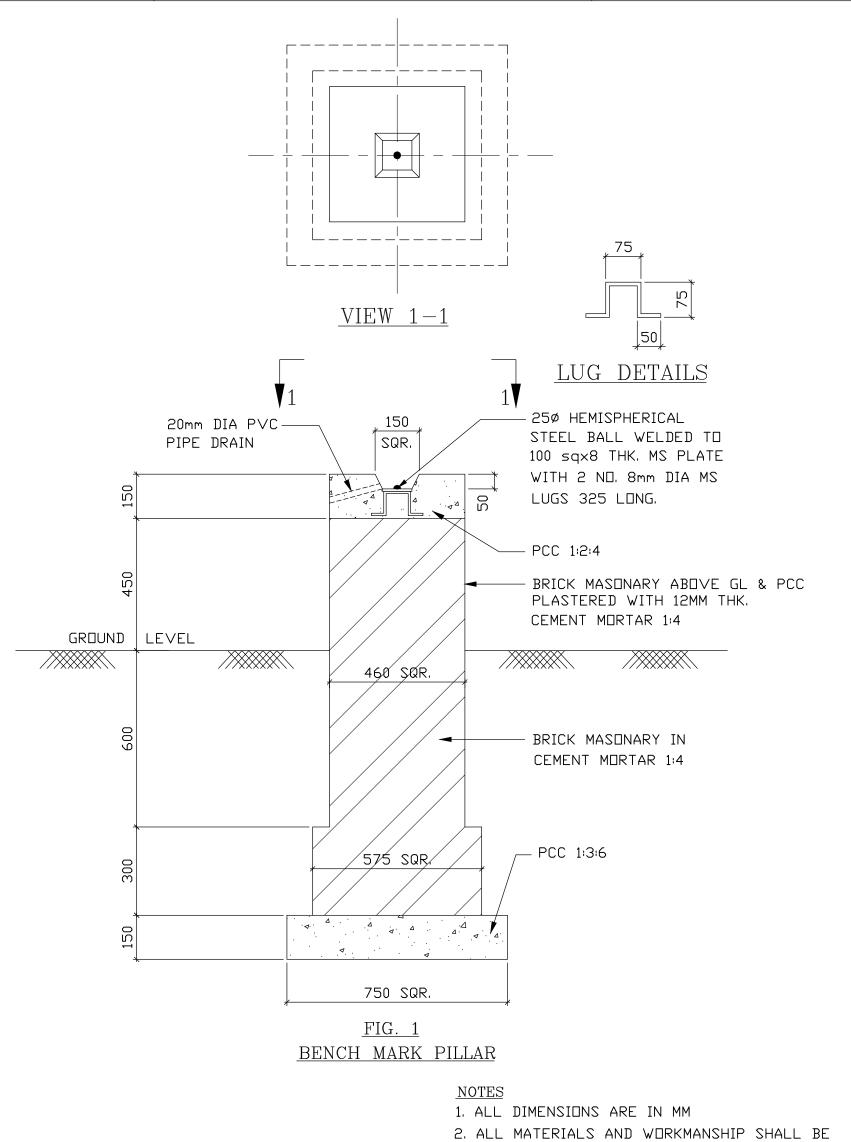
NOTE:

- (1) PLEASE ENSURE A VALID CALIBRATION CERTIFICATE IS FURNISHED FOR THE TEST KIT FROM AN ACCREDITED LABORATORY CERTIFIED BY NABL
- REDUCED FROM 8 TO EITHER 4 OR 2 DIRECTIONS. PAYABLE MEASUREMENTS SHALL BE ADJUSTED PRO-RATA BASED ON THE NUMBER OF DIRECTIONS, WITH 8 DIRECTIONS FOR ANY PROJECT-SPECIFIC REQUIREMENTS, THE NUMBER OF DIRECTIONS CAN BE CONSIDERED AS ONE UNIT. (5)



TECHNICAL SPECIFICATION FOR TOPOGRAPHICAL SURVEY

SPEC. NO.	
VOLUME IIB	
SECTION D	
REV. NO. 00	DATE

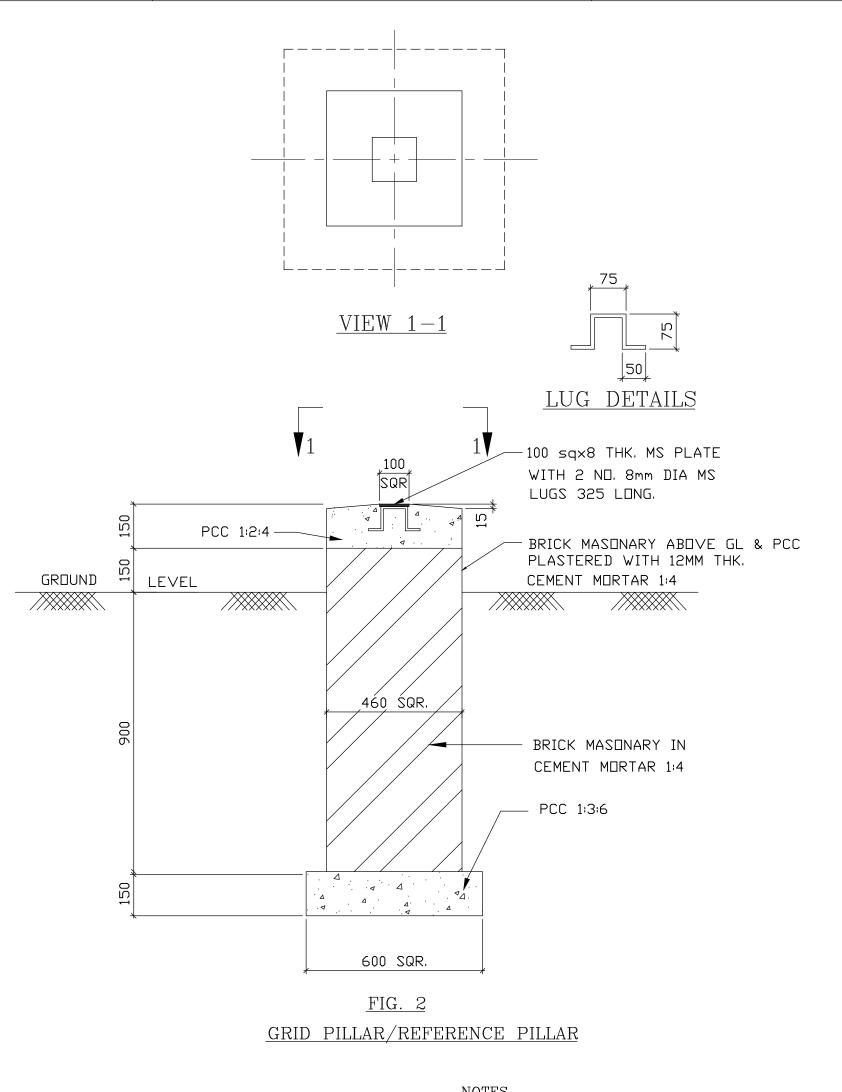


2. ALL MATERIALS AND WORKMANSHIP SHALL BE
AS PER SPECIFICATION & RELEVANT IS CODES



TECHNICAL SPECIFICATION FOR TOPOGRAPHICAL SURVEY

SPEC. NO.	
VOLUME IIB	
SECTION D	
REV. NO. 00	DATE



<u>NOTES</u>

- 1. ALL DIMENSIONS ARE IN MM
- 2. ALL MATERIALS AND WORKMANSHIP SHALL BE AS PER SPECIFICATION & RELEVANT IS CODES

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

REF:	Dated
BHARAT HEAVY ELECTRICALS LIMITED TRANSMISSION BUSINESS GROUP, 6th Floor, BHEL SADAN, Plot No- 25, Sector- 16A, Noida, Distt. Gautam Budh Nagar, UP-20130	
SUB: TENDER FOR "SOIL INVESTIGAT S/S (NEW) OF PGCIL AT BARMER IN RA	TION & TOPOGRAPHY SURVEY WORK AT 765/400/220KV BARMER AJASTHAN".
Tender Ref.: TBSM/BARMER/SI/TEND	ER/24-25, DATE: 01.03.2025
Dear Sir,	
	onfirm that as per tender conditions, we have visited subject site ed the job content & site conditions etc.
and in case of observance at any stag have not taken any deviation from te above referred NIT and we hereby c	inged / modified the tender documents as appeared in the website e, it shall be treated as null and void. We hereby confirm that we nder clauses together with other references as enumerated in the onvey our unqualified acceptance to all terms and conditions as e event of observance of any deviation in any part of our offer at a the deviations shall stand null & void.
We confirm to have submitted offer sti	rictly in accordance with tender instructions.
Thanking you,	
	Yours faithfully,
	(Signature, date & seal of authorized representative of the bidder)

DECLARATION FOR RELATION IN BHEL

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder failing which the offer of Bidder is liable to be summarily rejected)

bidder is hable to be summarily rejected;	
Ref:	Date
To, Sr. DGM/TBSM Transmission Business Group, Bharat Heavy Electricals Limited, 6th Floor, BHEL SADAN, Plot No. 25, Sector-16A, Noida, Distt Gautam Buddh Nagar, UP-201301	
Dear Sir,	
Sub: Declaration for relation in BHEL	
Ref: 1) NIT/Tender Specification No.: TBSM/BARMER/	'SI/TENDER/24-25, DATE: 01.03.2025
I/We hereby submit the following information p Partner(s)/Director(s) employed in BHEL	ertaining to relation/relatives of Proprietor/
Tick ($\sqrt{\ }$) any one as applicable:	
1. The Proprietor, Partner(s), Director(s) of our Conrelatives employed in BHEL	npany/Firm DO NOT have any relation or
OR	
2. The Proprietor, Partner(s), or Director(s) of our C employed in BHEL and their particulars are as belo	
a)	
b)	
Signature of the Authorized Signatory	

Note:

- 1) Attach separate sheet, if necessary.
- 2) If BHEL Management comes to know at a later date that the information furnished by the Bidder is false, BHEL reserves the right to take suitable against the Bidder/ Contractor.

DECLARATION BY AUTHORISED SIGNATORY OF BIDDER

(To be typed and submitted in the Letter Head of the Company/Firm of Bidder)

To,		

Sr. DGM/TBSM
Transmission Business Group,
Bharat Heavy Electricals Limited,
6th Floor, BHEL SADAN,
Plot No. 25, Sector-16A, Noida,
Distt. – Gautam Buddh Nagar, UP-201301

Dear Sir,

Sub: Declaration by Authorized Signatory regarding Authenticity of submitted documents.

Ref: 1) NIT/Tender Specification No: TBSM/BARMER/SI/TENDER/24-25, Date: 01.03.2025

2) All other pertinent issues till date

I/We, hereby certify that all the documents submitted by us in support of possession of "Qualifying Requirements" are true copies of the original and are fully compliant required for qualifying / applying in the bid and shall produce the original of same as and when required by Bharat Heavy Electricals Limited.

I / We hereby further confirm that no tampering is done with documents submitted in support of our qualification as bidder. I / We understand that at any stage (during bidding process or while executing the awarded works) if it is found that fake / false / forged bid qualifying /supporting documents / certificates were submitted, it would lead to summarily rejection of our bid / termination of contract. BHEL shall be at liberty to initiate other appropriate actions as per the terms of the Bid / Contract and other extant policies of Bharat Heavy Electricals Limited.

Yours faithfully,

(Signature, Date & Seal of Authorized Signatory of the Bidder)

Date:

Place

Tender No.: TBSM/BARMER/SI/TENDER/24-25, Date: 01.03.2025

ANNEXURE-MII

DECLARATION REGARDING MINIMUM LOCAL CONTENT IN LINE WITH REVISED PUBLIC PROCUREMENT (PREFERENCE TO MAKE IN INDIA), ORDER 2017 DATED 04TH JUNE, 2020 AND SUBSEQUENT ORDER(S).

(To be typed and submitted in the Letter Head of the Entity/Firm providing certificate as applicable)

To,		
Sr. DGM/TBSM		
Transmission Business Group,		
Bharat Heavy Electricals Limited,		
6th Floor, BHEL SADAN,		
Plot No. 25, Sector-16A, Noida,	1204	
Distt. – Gautam Buddh Nagar, UP-201	1301	
Dear Sir,		
Sub: Declaration reg. minimum local of India), Order 2017-Revision, dated 04t Ref:		•
1) NIT/Tender Specification No: TBSM	/BARMER/SI/TENDER/24-25, Da	te: 01.03.2025
2) All other pertinent issues till date		
We here by certify that the items/wo here) has a local content of% supplier/ Class II local supplier** as def 2017-Revision dated 04.06.2020 issued	s and this meets the local content of fined in Public Procurement (Prefe	requirement for – Class 1 Local erence to Make in India), Order
The details of the location(s) at which	the local value addition is made a	are as follows:
1	2	
3	4	
Thanking you,		
Yours faithfully,		
(Signature, Date & Seal of Authorized	Signatory of the Bidder)	
** - Strike out whichever is not applica	able.	
Note:		

- 1. Bidders to note that above format Duly filled & signed by authorized signatory, shall be submitted.
- 2. In case the bidders quoted value is excess of 10 crores, the authorized signatory for this declaration shall necessarily be the statutory auditor or cost auditor of the company (in the case of companies) or a practising cost accountant or practicing chartered accountant (in respect of suppliers/contractors other than companies).
- 3. In the event of false declaration, actions as per the above order and as per BHEL Guidelines shall be initiated against the bidder.

FORMATS FOR EPAYMENTS

To,

Sr.DGM (Finance) Transmission Business Group BHEL, TBG Finance, Plot no. - 25, Sector - 16A Noida - 201301; U.P.

Subject: E-Payments vide RTGS/NEFT

I/We request and authorise you to effect Epayment vide any of the above two modes to my/our bank account

as per the details given below:

Vendor Name	:								
Title/Name of Account in the bank	:								
Account Type(Saving /current)	:								
Bank Account Number									

Name & address of Bank

Bank /Branch contact person's name :

Bank /Branch Tele Numbers with STD code :

Bank Branch MICR code

(please enclose a copy of a cheque. This cheque should not be a payable at par cheque)

Bank Branch RTGS IFSC code
Bank Branch NEFT IFSC code

(you can obtain this from branch where you have your account)

Your Email address : (not

Your Email address : (not more than 20 character)

Name of the Authorised Signatory : (Please mention here name of person from your organization signing this letter.)

Contact Person's name : (please mention here the name of a person in your company/organization)

I/We confirm that information provided above is correct & any consequences due to any mistake in above will be borne by us.

Thanking you

For

(Autorised Signatory)

We confirm that we are enabled for receiving RTGS/NEFT credits and we further confirm that the account number of (Please mention here name of the account holder), the signature of the authorised signatory and the MICR and IFSC Codes of our branch mentioned above are correct.

Bank's Verification (Manager's/Officers signature under bank Stamp)

Note:- Please attach cancelled original Cheque leaf.