

E-TENDER SPECIFICATION

No. BHE/PW/PUR/URB-BOILER/3175

Modification of Steam Generator (Boiler) of 200 MW for comprehensive work of availability and efficiency improvement through modification/Overhauling of Boiler back pass/ Boiler Pressure parts, fuel firing system, ducts, milling system & APH and flexible operation at 40% TMCR load without oil support at 200 MW , U#3, GSECL Ukai TPS, DIST – TAPI, (GJ)

VOLUME I – TECHNICAL BID

THIS TENDER SPECIFICATION CONSISTS OF:

Notice Inviting Tender	
Volume-IA	Technical Conditions of Contract
Volume-IB	Special conditions of Contract
Volume-IC	General conditions of Contract
Volume-ID	Forms & Procedures
Volume-IE	Technical Specifications
Volume II	Price Bid



Bharat Heavy Electricals Limited
(A Government of India Undertaking)
Power Sector - Western Region
345-Kingsway, Nagpur-440001

CONTENTS		
Volume No	Description	Hosted in website bhel.com (Briefly) and detailed in BHEL e-Procurement Portal as files titled
NIL	Tender Specification Issue Details	(Part of <u>Vol-IA-3175</u>)
NIL	Notice Inviting Tender	(Part of <u>Vol-IA-3175</u>)
I-A	Technical Conditions of Contract	Vol-I-A-3175
I-B	Special Conditions of Contract	Vol-I-BCD-3175
I-C	General Conditions of Contract	(Part of Vol-I-BCD-3175)
I-D	Forms & Procedures	(Part of Vol-I-BCD-3175)
I-E	Technical Specifications	Vol-I-E-3175
II	Price Bid Specification as specified in E-Procurement Portal	Volume-II-Price Bid-3175

E-TENDER SPECIFICATION

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Modification of Steam Generator (Boiler) of 200 MW for comprehensive work of availability and efficiency improvement through modification/Overhauling of Boiler back pass/ Boiler Pressure parts, fuel firing system, ducts, milling system & APH and flexible operation at 40% TMCR load without oil support at 200 MW , U#3, GSECL Ukai TPS, DIST – TAPI, (GJ)

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR Refer Notice Inviting Tender
TENDER SUBMISSION .

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING VOLUME-I AND VOLUME- II ARE ISSUED TO:

M/s.

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PLEASE NOTE:
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.

For Bharat Heavy Electricals Limited

GM (Purchase)

Place: Nagpur
Date:

3175

NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



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Date: 17-10-2025

NOTICE INVITING TENDER (NIT)

NOTE: BIDDER MAY DOWNLOAD FROM WEB SITES

To,

Dear Sir/Madam,

Sub : NOTICE INVITING E-TENDER

Sealed offers in two part bid system (National competitive bidding (NCB) ~~or International Competitive Bidding (ICB)~~ are invited from reputed & experienced bidders (meeting [PRE QUALIFICATION CRITERIA](#) as mentioned in Annexure-1) through E-Procurement Portal <https://eprocurebhel.co.in> only, for the subject job by the undersigned on the behalf of BHARAT HEAVY ELECTRICALS LIMITED as per the tender document. Following points relevant to the tender may please be noted and complied with.

1.0 Salient Features of NIT

S No.	ISSUE	DESCRIPTION
i	TENDER NUMBER	BHE/PW/PUR/URB-BOILER/3175
ii	Broad Scope of job	Modification of Steam Generator (Boiler) of 200 MW for comprehensive work of availability and efficiency improvement through modification/Overhauling of Boiler back pass/ Boiler Pressure parts, fuel firing system, ducts, milling system & APH and flexible operation at 40% TMCR load without oil support at 200 MW , U#3, GSECL Ukai TPS, DIST – TAPI, (GJ)
iii	DETAILS OF TENDER DOCUMENT	
A	Volume-IA	Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc. Applicable
B	Volume-IB	Special Conditions of Contract (SCC) Applicable
C	Volume-IC	General Conditions of Contract (GCC) Applicable
D	Volume-ID	Forms and Procedures Applicable
E	Volume-IE	Drawings/Technical Specifications (Section C and D) Applicable
F	Volume-II	Price Schedule (Absolute value). Applicable
iv	Issue of Tender Documents	Tender documents will be available for downloading from BHEL website (www.bhel.com) or e-procurement portal (https://eprocurebhel.co.in) as per schedule below: Start: 17-10-2025, Time :17:00 Hrs Closes: 22-10-2025, Time:13:00 Hrs Brief information of the tenders shall also be available at central public procurement portal. (https://eprocure.gov.in/epublish/app) Applicable

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S No.	ISSUE	DESCRIPTION	
v	DUE DATE & TIME OF OFFER SUBMISSION	Date: 22-10-2025, Time:13:00 Hrs The bidder should submit their offer online only in e-Procurement portal at https://eprocurebhel.co.in <u>Bidders are requested to upload their offer well in advance in order to avoid last minute congestion at this website.</u> Hard copy bid or bids through E-mail / fax shall not be accepted.	Applicable
vi	OPENING OF TENDER (Techno-Commercial Bid)	Date: 22-10-2025, Time:17:00 Hrs Notes: (1) In case the due date of opening of tender becomes a non-working day, then the due date & time of offer submission and opening of tenders get extended to the next working day. (2) Bidder may depute representative to witness the opening of tender. For e-Tender, Bidder may witness the opening of tender through e-Procurement portal only.	Applicable
vii	EMD AMOUNT	Rs 20,00,000 (Indian Rupees Twenty Lakhs Only) Important Note: Bidders kindly to take note that EMD (Earnest Money Deposit) shall be furnished by MSE bidders as well, as per the amount and procedure indicated in the NIT/GCC..	Applicable
viii	COST OF TENDER	NIL	Not Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	One day before due date of offer submission. Along with soft version also, addressing to undersigned & to others as per contact address given below: 1) Name: Varun Vaidya Designation: Manager Deptt: Purchase Address: Floor no. 5 & 6,Shree Mohini Complex, 345 Kingsway, Nagpur-440001 Mobile-9792334127 Email :vaidya@bhel.in 2) Name: Varun Vaidya Designation: Manager Deptt: Purchase Address: Floor no. 5 & 6,Shree Mohini Complex, 345 Kingsway, Nagpur-440001 Mobile-9792334127 Email :vaidya@bhel.in	Applicable

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S No.	ISSUE	DESCRIPTION	
		3) Mr. V K Arya Designation: GM Deptt: Purchase Address: Floor no. 5 & 6, Shree Mohini Complex, 345 Kingsway, Nagpur-440001 Email: vkarya@bhel.in	
x	SCHEDULE OF Pre Bid Discussion (PBD)	---	<i>Not Applicable</i>
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)		<i>Applicable</i>
xii	Latest updates	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage (www.bhel.com →Tender Notifications →View Corrigendum), & on e-tender portal https://eprocurebhel.co.in and not in the newspapers. Bidders to keep themselves updated with all such information.	

2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly signed digitally using Class III DSC & uploaded in E-Procurement Portal, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**

3.0 Not Used

4.0 Unless specifically stated otherwise, bidder shall deposit EMD as per clause 1.9 of General Conditions of Contract.

For Electronic Fund Transfer the details are as below:-

NAME OF THE BENEFICIARY	BHARAT HEAVY ELECTRICALS LTD
ADDRESS OF THE COMPANY	5th Floor, SHREE MOHINI COMPLEX 345, KINGSWAY,NAGPUR
NAME OF BANK	STATE BANK OF INDIA
NAME OF BANK BRANCH AND BRANCH CODE	SBI,NAGPUR MAIN BRANCH ,CODE-00432
CITY	NAGPUR
ACCOUNT NUMBER	40227423158
ACCOUNT TYPE	MC-C C Clean (C&I)
IFSC CODE OF THE BENEFICIARY BANK BRANCH	SBIN0000432
MICR CODE OF THE BANK BRANCH	440002002

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Website: www.bhel.com

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(Note -: In case of E-Tenders, proof of remittance of EMD should be uploaded in the E-Procurement Portal and originals, as applicable, shall be sent to the officer inviting tender within a reasonable time, failing which the offer is liable to be rejected.

(Note -: In case of E-Tenders, proof of remittance of EMD should be uploaded in the E-Procurement Portal and originals, as applicable, shall be sent to the officer inviting tender within a reasonable time, failing which the offer is liable to be rejected.

5.0 Procedure for Submission of Tenders:

This is an E-tender floated online through our E-Procurement Site (<https://eprocarebhel.co.in>). The bidder should respond by submitting their offer online only in our e-Procurement platform at (<https://eprocarebhel.co.in>). Offers are invited in two-parts only.

Documents Comprising the e-Tender

The tender shall be submitted online ONLY EXCEPT EMD (in physical form) as mentioned below:

a. Technical Tender (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 4.0. ~~Alternatively, documentary evidence for claiming exemption as per clause 29 of NIT.~~
- 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.

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.
- 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.
- 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.

DO NOT'S

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Bidders are requested NOT to submit the hard copy of the Bid. In case offer is sent through hard copy/fax/telex/cable/electronically in place of e-tender, the same shall not be considered. **Also, uploading of the price bid in prequalification bid or technical bid may RESULT IN REJECTION of the tender.**

Digital Signing of e-Tender

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).

The Requirement:

1. A PC with Internet connectivity &
2. DSC (Digital Signature Certificate) (**Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION**)

BHEL has finalized the e-procurement service Provider:-

NIC PORTAL (<https://eprocurebhel.co.in>)

For E-PROCUREMENT ASSISTANCE & TRAINING, NIC PORTAL HELPDESK CONTACTS AS PER FOLLOWING:

For any technical related queries, please call at 24 x 7 Help Desk Number

0120-4001 002

0120-4200 462

0120-4001 005

0120-6277 787

1. Peter Raj, NIC, Ph: 9942069052

Email Support: support-eproc@nic.in

Other details/update yourself from : <https://eprocurebhel.co.in>

The process of utilizing e-procurement necessitates usage of **DSC (Digital Signature Certificate) (Class 3- SHA2- 2048 BIT- SIGNING & ENCRYPTION)** and you are requested to procure the same immediately, if not presently available with you. Please note that only with DSC, you will be able to login the e-procurement secured site and take part in the tendering process.

The contact details of the DSC certifying authority:-

please refer <http://www.mca.gov.in/> → MCA SERVICES → DSC SERVICES

Vendors are requested to go through seller manual available on <https://eprocurebhel.co.in>.

~~**Procedure for Submission of Tenders (To be used in case of Paper bid only):**~~ The Tenderers must submit their Tenders to Officer inviting Tender, as detailed below:

- ~~PART I consisting of 'PART I A (Techno Commercial Bid)' & 'PART I B (EMD)' in two separate sealed and superscribed envelopes (ENVELOPE I & ENVELOPE II)~~
- ~~PART II (Price Bid) in sealed and superscribed envelope (ENVELOPE III)~~

~~One set of tender documents shall be retained by the bidder for their reference~~

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6.0 The contents for ENVELOPES and the superscription for each sealed cover/Envelope are as given below. **(All pages to be signed and stamped) (To be used in case of Paper bid only):**

Sl. no.	Description	Remarks
	Part I-A	
	<u>ENVELOPE – I superscribed as:</u> PART I (TECHNO COMMERCIAL BID) TENDER NO.: NAME OF WORK.: PROJECT: DUE DATE OF SUBMISSION: <u>CONTAINING THE FOLLOWING:-</u>	
i. —	Covering letter/Offer forwarding letter of Tenderer.	
ii. —	Duly filled in 'No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above. <u>Note:</u> a. In case of any deviation, the same should be submitted separately for technical & commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be placed after document under sl no (i) above. It shall be specifically noted that deviation recorded elsewhere shall not be entertained. b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding. i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender	
iii. —	Supporting documents/ annexure/ schedules/ drawing etc. as required in line with Pre Qualification criteria. It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph. no, FAX no, etc.	
iv. —	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc. pertinent to this NIT.	
v. —	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi. —	Duly filled in annexures, formats etc. as required under this Tender Specification/NIT	
vii. —	Notice inviting Tender (NIT)	
viii. —	Volume – I A : <u>Technical</u> Conditions of Contract (TCC) consisting of Scope of work,	

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	Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc.	
ix. —	Volume — I B : Special Conditions of Contract (SCC)	
x. —	Volume — I C : General Conditions of Contract (GCC)	
xi. —	Volume — I D : Forms & Procedures	
xii. —	Volume — II (UNPRICED — without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiii. —	Any other details preferred by bidder with proper indexing.	

	PART I B	
	<u>ENVELOPE — II superscribed as:</u> PART I (EMD) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION: <u>CONTAINING THE FOLLOWING:-</u>	
	Earnest Money Deposit (EMD) in the form as indicated in this Tender	

	PART II	
	PRICE BID consisting of the following shall be enclosed	
	<u>ENVELOPE III</u> superscribed as: PART II (PRICE BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION: <u>CONTAINING THE FOLLOWING</u>	
i	Covering letter/Offer forwarding letter of Tenderer enclosed in Part-I	
ii	Volume II — PRICE BID (Duly Filled in Schedule of Rates — rate/price to be entered in words as well as figures)	

	OUTER COVER	
	<u>ENVELOPE IV (MAIN ENVELOPE / OUTER ENVELOPE)</u> superscribed as: TECHNO-COMMERCIAL BID, PRICE BID & EMD TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION:	

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	CONTAINING THE FOLLOWING:	
i	⊖ Envelopes-I ⊖ Envelopes-II ⊖ Envelopes-III	

- **SPECIAL NOTE: All documents/ annexures to be submitted should be uploaded in respective places in the E-Tender portal as per the list mentioned given in this NIT. BHEL shall not be responsible for any in-complete documents.**

7.0 Deviation with respect to tender clauses and additional clauses/suggestions in Techno-commercial bid / Price bid shall NOT be considered by BHEL. Bidders are requested to positively comply with the same.

8.0 BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter (except for the refund of EMD).

9.0 Assessment of Capacity of Bidders:

Bidder's capacity for executing the job under tender shall be assessed based on its 'LOAD and PERFORMANCE' and 'AVERAGE ANNUAL TURNOVER', as per the following:

- I. LOAD: Load takes into consideration ALL the contracts of the Bidder under execution with BHEL Regions, irrespective of whether they are similar to the tendered scope or not. The cut off month for reckoning 'Load' shall be the 3rd Month preceding the month corresponding to the 'latest date of bid submission', in the following manner -
(Note: For example, if latest bid submission is in Jan 2017, then the 'load' shall be calculated up to and inclusive of Oct 2016)

Total number of Packages in hand = Load (P)

Where 'P' is the sum of all unit wise identified packages (refer table-1) under execution with BHEL Regions as on the cut off month defined above, including packages yet to be commenced, excepting packages which are on Long Hold.

- II. PERFORMANCE: Here 'Monthly Performance' of the bidder for all the packages (under execution/ executed during the 'Period of Assessment' in all Power Sector Regions of BHEL) SIMILAR to the packages covered under the tendered scope, excepting packages not commenced shall be taken into consideration. The 'Period of Assessment' shall be 6 months preceding and including the cut off month. The cut off month for reckoning 'Period of Assessment' shall be the 3rd Month preceding the month corresponding to 'latest date of bid submission', in the following manner:

(Note: For example, if 'latest date of bid submission' is in Jan 2017, then the 'performance' shall be assessed for a 6 months' period up to and inclusive of Oct 2016 (i.e. from May 2016 to Oct 2016), for all the unit wise identified packages (refer Table I))

- i). Calculation of Overall 'Performance Rating' for 'Similar Package/Packages' for the tendered scope under execution at Power Sector Regions for the 'Period of Assessment':

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This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for all the similar Package/packages', divided by the total number of Package months for which evaluation should have been done, as per procedure below:

- a) $P_1, P_2, P_3, P_4, P_5, \dots, P_N$ etc. be the packages (under execution/ executed during the 'Period of Assessment' in all Regions of BHEL) SIMILAR to the packages covered under the tendered scope, excepting packages not commenced. Total number of similar packages for all Regions = P_T (i.e. $P_T = P_1 + P_2 + P_3 + P_4 + \dots + P_N$)
- b) Number of Months ' T_1 ' for which 'Monthly Performance Evaluation' as per relevant formats, should have been done in the 'Period of Assessment' for the corresponding similar package P_1 . Similarly T_2 for package P_2, T_3 for package P_3 , etc. for the tendered scope. Now calculate cumulative total months ' T_T ' for total similar Packages ' P_T ' for all Regions (i.e. $T_T = T_1 + T_2 + T_3 + T_4 + \dots + T_N$)
- c) Sum ' S_1 ' of 'Monthly Performance Evaluation' Scores ($S_{1-1}, S_{1-2}, S_{1-3}, S_{1-4}, S_{1-5} \dots S_{1-T_1}$) for similar package P_1 , for the 'period of assessment' ' T_1 ' (i.e. $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots + S_{1-T_1}$). Similarly, S_2 for package P_2 for period T_2, S_3 for package P_3 for period T_3 etc. for the tendered scope for all Regions. Now calculate cumulative sum ' S_T ' of 'Monthly Performance Evaluation' Scores for total similar Packages ' P_T ' for all Regions (i.e. ' $S_T = S_1 + S_2 + S_3 + S_4 + S_5 + \dots + S_N$ ')
- d) Overall Performance Rating ' R_{BHEL} ' for the Similar Package/Packages (under execution/ executed during the 'Period of Assessment') in all the Power Sector Regions of BHEL

$$= \frac{\text{Aggregate of Performance scores for all similar packages in all the Regions}}{\text{Aggregate of months for each of the similar packages for which performance should have been evaluated in all the Regions}}$$

$$= \frac{S_T}{T_T}$$

- e) Bidders to note that the risk of non-evaluation or non-availability of the 'Monthly Performance Evaluation' reports as per relevant formats is to be borne by the Bidder.
- f) Table showing methodology for calculating 'a', 'b' and 'c' above

Sl. No.	Item Description	Details for all Regions							Total
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
1	Similar Packages for all Regions → (under execution/ executed during period of assessment)	P_1	P_2	P_3	P_4	P_5	...	P_N	Total No. of similar packages for all Regions = P_T i.e. Sum (Σ) of columns (iii) to (ix)

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Sl. No.	Item Description	Details for all Regions							Total
(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	(viii)	(ix)	(x)
2	Number of Months for which 'Monthly Performance Evaluation' as per relevant formats should have been done in the 'period of assessment' for corresponding Similar Packages (as in row 1)	T ₁	T ₂	T ₃	T ₄	T ₅	...	T _N	Sum (Σ) of columns (iii) to (ix) = T _T
3	Monthly performance scores for the corresponding period (as in Row 2)	S ₁₋₁ , S ₁₋₂ , S ₁₋₃ , S ₁₋₄ , ... S _{1-T1}	S ₂₋₁ , S ₂₋₂ , S ₂₋₃ , S ₂₋₄ , ... S _{2-T2}	S ₃₋₁ , S ₃₋₂ , S ₃₋₃ , S ₃₋₄ , ... S _{3-T3}	S ₄₋₁ , S ₄₋₂ , S ₄₋₃ , S ₄₋₄ , ... S _{4-T4}	S ₅₋₁ , S ₅₋₂ , S ₅₋₃ , S ₅₋₄ , ... S _{5-T5}		S _{N-1} , S _{N-2} , S _{N-3} , S _{N-4} , ... S _{N-TN}	-----
4	Sum of Monthly Performance scores of the corresponding Package for the corresponding period (as in row-3)	S ₁	S ₂	S ₃	S ₄	S ₅	...	S _N	Sum (Σ) of columns (iii) to (ix) = S _T

- ii). Calculation of Overall 'Performance Rating' (R_{BHEL}) in case at least 6 evaluation scores for 'similar Package/Packages' for the tendered scope ARE NOT AVAILABLE, during the 'Period of Assessment':

This shall be obtained by summing up the 'Monthly Performance Evaluation' scores obtained by the bidder in all Regions for ALL the packages, divided by the total number of Package months for which evaluation should have been done. 'R_{BHEL}' shall be calculated subject to availability of 'performance scores' for at least 6 'package months' in the order of precedence below:

- 'Period of Assessment' i.e. 6 months preceding and including the cut-off month
- 12 months preceding and including the cut-off month
- 24 months preceding and including the cut-off month

In case, R_{BHEL} cannot be calculated as above, then Bidder shall be treated as 'NEW VENDOR'. Further eligibility and qualification of this bidder shall be as per definition of 'NEW VENDOR' described in 'Explanatory Notes'.

- iii). Factor "L" assigned based on Overall Performance Rating (R_{BHEL}) at Power Sector Regions:

Sl. no.	Overall Performance Rating (R _{BHEL})	Corresponding Value of 'L'
1	=60	NA
2	> 60 and ≤ 65	0.5
3	> 65 and ≤ 70	0.45
4	> 70 and ≤ 75	0.4
5	> 75 and ≤ 80	0.375
6	> 80 and < 90	0.35
7	≥90	0.33

- iv). Performance Systems: The performance rating as mentioned in II (i) and (ii) above, shall be calculated as per Online Systems i.e. Contractor Performance Evaluation System (CPES) and Safety Performance Evaluation System (HSEPES). The scores assigned in HSEPES shall be scaled down to 10 and assigned in CPES against the category "HSE" (mentioned in Form F-15).

- III. i) 'Assessment of Capacity based on 'LOAD and PERFORMANCE':

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- a) 'Assessment of Capacity of Bidder' is based on the Maximum number of packages for which a vendor is eligible, considering the performance scores of similar packages, as below:

Max number of packages $P_{Max} = (R_{BHEL} - 60)$ divided by corresponding value of 'L', i.e. $(R_{BHEL} - 60)/L$

Note:

- i). In case the value of P_{Max} results in a fraction, the value of P_{Max} is to be rounded off to next whole number
- ii). For $R_{BHEL} = 60$, $P_{Max} = '1'$

The Bidder shall be considered 'Qualified' on 'Performance basis' as per 'Assessment of Capacity of Bidder' for the subject Tender if $P \leq P_{Max}$

(Where P is calculated as per clause 'I' above)

- b) In addition to above, the contractor shall be considered disqualified for ongoing tender(s) of BHEL, in case contractor fails to obtain an overall average score of 6 or more than 6 (six) (in the scaled down scores of HSEPES) out of 10, in a period of '6 months preceding and including the cut-off month'. The period of '6 months preceding and including the cut-off month' can be extended to 12 months and further to 24 months, to account for 'performance scores' for at least 6 'package months'. Bidders who did not qualify this condition shall not be considered under the provisions of clause 9 IV (iv) of NIT.

ii) Assessment of Capacity based on 'AVERAGE ANNUAL TURNOVER':

If the 'value of contracts in hand' across all PS Regions by a contractor is less than the product of "annual average turnover of the Contractor and multiplying factor", then such bidder shall be considered qualified on 'Annual Average Turnover basis'. The 'value of contracts in hand' will be computed by summing up "50% of the annualized awarded value of each contract" unless performance evaluation is not closed in the online CPES.

Based on the performance rating of the Contractor, the above mentioned multiplying factor shall be as below:

Sl. no	Overall Performance Rating (R_{BHEL})	(Multiplying factor to Average Annual Turnover)
1	≥ 60 and ≤ 65	1
2	> 65 and ≤ 70	1.5
3	> 70 and ≤ 75	2
4	> 75 and ≤ 80	2.5
5	> 80	3

'Assessment of Capacity of Bidder':

The bidder will be considered qualified for the tender if it qualifies on 'Load and Performance basis' as well as on 'Average Annual Turnover basis'.

However, 'New Vendor' / 'Consortium Partner' shall be considered qualified based on only 'Load and Performance' (they will be regarded pre-qualified on 'Average Annual Turnover' criteria).

IV. Explanatory note:

- i). Similar package means Boiler or ESP or Piping or Turbine or Civil or Structure or Electrical or C&I etc. at the individual level irrespective of rating of Plant and irrespective of whether the subject tender is a single package or as part of combined/composite packages. Normally Boiler, ESP, Piping, Turbine, Electrical, C&I, Civil, Structure etc. is considered individual level of package. For example, in case the tendered scope is a Boiler Vertical Package comprising of Boiler, ESP and Power Cycle Piping (i.e. the 'identified packages as per Table-1 below), the 'PERFORMANCE' part against sl.no. II above, needs to be evaluated considering all the

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identified packages (i.e. Boiler, ESP and Power Cycle Piping) and finally the Bidder's capacity to execute the tendered scope is assessed in line with III above.

ii). Identified Packages (Unit wise)

Table-1

Civil	Electrical and C&I	Mechanical
i). Enabling works ii). Pile and Pile Caps iii). Civil Works including foundations iv). Structural Steel Fabrication & Erection v). Chimney vi). Cooling Tower vii). Others (Civil)	i). Electrical ii). C&I iii). Others (Elect. and C&I) iv). Electrical Enabling Works	i). Boiler & Aux (All types including CW Piping if applicable) ii). Power Cycle Piping/Critical Piping iii). ESP iv). LP Piping v). Steam Turbine Generator set & Aux vi). Gas Turbine Generator set & Aux vii). Hydro Turbine Generator set & Aux viii). Turbo Blower (including Steam Turbine) ix). Material Management x). FGD xi). ACC xii). Others (Mechanical)

iii). Bidders who have not been evaluated for at least six package months in the last 24 months preceding and including the Cut-off month in the online BHEL system for contractor performance evaluation in BHEL PS Regions, shall be considered "NEW VENDOR".

A 'NEW VENDOR' shall be considered qualified subject to satisfying all other tender conditions.

A 'NEW VENDOR' if awarded a job (of package/packages identified under this clause) shall be tagged as "FIRST TIMER" on the date of first LOI from BHEL.

The "FIRST TIMER" tag shall remain till completion of all the contracts against which vendor has been tagged as First Timer or availability of 6 evaluation scores within last 24 months preceding and including the Cut-off month in the online BHEL system for contractor performance evaluation in BHEL PS Regions.

A Bidder shall not be eligible for the next job as long as the Bidder is tagged as "FIRST TIMER" excepting for the Tenders which have been opened on or before the date of the bidder being tagged as 'FIRST TIMER'.

After removal of 'FIRST TIMER' tag, the Bidder shall be considered 'QUALIFIED' for the future tenders subject to satisfying all other tender conditions including 'Assessment of Capacity of Bidders'.

iv). Consequent upon applying the criteria of 'Assessment of Capacity of Bidders' detailed above on all the bidders qualified against Technical and Financial Qualification criteria, if the number of qualified bidders reduces to less than four, then for further processing of the Tender, BHEL at its discretion reserves the right to also consider the bidders who are "not qualified" as per criteria of 'Assessment of Capacity of Bidders' and for this, procedure described in following three options shall be followed:

- a) All the bidders having Overall Performance Rating ('R_{BHEL}') ≥60 shall be considered qualified against criteria of 'Assessment of Capacity of Bidders'.
- b) If even after using option "a", the number of qualified bidders remains less than four, then in addition to bidders considered as per option "a", "First timer" bidders having average of available performance scores ≥60 upto and including the Cut Off month shall also be considered qualified against criteria of 'Assessment of Capacity of Bidders'.

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c) If even after using option "a" and "b", the number of qualified bidders remains less than four, then in addition to bidders considered as per option "a" and "b", "First timer" bidders for whom no performance score is available in the system upto and including the Cut Off month, shall also be considered qualified against criteria of 'Assessment of Capacity of Bidders'.

d) If even after using option "a", "b" and "c" the number of qualified bidders remains less than four, remaining bidders shall be "listed" as per their descending order of Overall Performance Rating ('RBHEL') or average of available performance scores for "First timer" bidders upto and including the Cut Off month.

Bidders as per option "a", "b", "c" and additional top bidders as "listed" above shall be considered qualified against criteria of 'Assessment of Capacity of Bidders' to make the total numbers of qualified bidders as four.

In case, from the "listed" bidders, more than 1 "listed" bidder are having the same average performance score, then all such bidders shall be considered.

Example-

If 3 bidders are considered from "a", "b" and "c".

From remaining "listed" bidders, 3 top bidders have same average performance scores. Then all 3 "listed" bidders shall be considered.

Note:- In case, the number of bidders qualified against Technical and Financial Qualification criteria itself is less than four, then all bidders shall be considered qualified against criteria of 'Assessment of Capacity of Bidders' for further processing of tender.

v). 'Under execution' shall mean works in progress as per the following:

a. Up to execution of 90% of anticipated Contract Value in case of Civil, MM, Structural and Turbo Blower Packages

b. Up to Steam Blowing in case of Boiler/ESP/Piping Packages

c. Up to Synchronization in all Balance Packages

Note: BHEL at its discretion can extend (or reduce in exceptional cases in line with Contract conditions) the period defined against (a), (b) and (c) above, depending upon the balance scope of work to be completed.

vi). Contractor shall provide the latest contact details i.e. mail-ID and Correspondence Address to SCT Department, so that same can be entered in the Contractor Performance Evaluation System, and in case of any change/discrepancy same shall be informed immediately. Login Details for viewing scores in Contractor Performance Evaluation System shall be provided to the Contractor by SCT Department.

vii). Performance Evaluation for Activity Month shall be completed in Evaluation Month (i.e. month next to Activity Month) or in rare cases in Post Evaluation Month (i.e. month next to Evaluation Month) after approval from Competent Authority. In case scores are not acceptable, Contractor can submit Review Request to GM Site/ GM Project latest by 27th of Evaluation Month or 5 days after approval of score, whichever is later. However, acceptance/rejection of 'Review Request' solely depends on the discretion of GM Site/GM Project. After acceptance of Review Request, evaluation score shall be reviewed at site and the score after completion of review process shall be acceptable and binding on the contractor.

viii). Project on Hold due to reasons not attributable to bidder -

a. Short hold: Evaluation shall not be applicable for this period, however, Loading will be considered.

b. Long hold: Short hold for continuous six months and beyond or hold on account of Force Majeure shall be considered as Long Hold. Evaluation as well as Loading shall not be considered for this period.

Performance evaluation as specified above in this clause is applicable to Prime bidder and Consortium partner (or Technical tie up partner) for their respective scope of work

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- 10.0 Since the job shall be executed at site, bidders must visit site/ work area and study the job content, facilities available, availability of materials, prevailing site conditions including law & order situation, applicable wage structure, wage rules, etc. before quoting for this tender. They may also consult this office before submitting their offers, for any clarifications regarding scope of work, facilities available at sites or on terms and conditions.
- 11.0 For any clarification on the tender document, the bidder may seek the same in writing or through e-mail and/or through e-procurement portal <https://eprocarebhel.co.in>, as per specified format, within the scheduled date for seeking clarification, from the office of the undersigned. BHEL shall not be responsible for receipt of queries after due date of seeking clarification due to postal delay or any other delays. Any clarification / query received after last date for seeking clarification may not be normally entertained by BHEL and no time extension will be given.
- 12.0 BHEL may decide holding of pre-bid discussion [PBD] with all intending bidders as per date indicated in the NIT. The bidder shall ensure participation for the same at the appointed time, date and place as may be decided by BHEL. Bidders shall plan their visit accordingly. The outcome of pre-bid discussion (PBD) shall also form part of tender.
- 13.0 In the event of any conflict between requirement of any clause of this specification/ documents/drawings/data sheets etc. or requirements of different codes/standards specified, the same to be brought to the knowledge of BHEL in writing for clarification before due date of seeking clarification (whichever is applicable), otherwise, interpretation by BHEL shall prevail. Any typing error/missing pages/ other clerical errors in the tender documents, noticed must be pointed out before pre-bid meeting/submission of offer, else BHEL's interpretation shall prevail.
- 14.0 Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender including PBD.
- 15.0 Bidders shall submit Integrity Pact Agreement (Duly signed by authorized signatory who signs in the offer), **if applicable**, along with techno-commercial bid. This pact shall be considered as a preliminary qualification for further participation. **The names and other details of Independent External Monitor (IEM) for the subject tender is as given at point (1) above.**

"Integrity Pact (IP)"

- (a) IP is a tool to ensure that activities and transactions between the Company and its Bidders! Contractors are handled in a fair, transparent and corruption free manner.
- (b) In case of any complaint arising out of the tendering process, the matter may be referred to any of the below e-mail IDs.
iem1@bhel.in ; iem2@bhel.in; iem3@bhel.in

As on date, the positions of Independent External Monitors (IEMs) are vacant in the Company. As and when the IEMs join based on due approval of the Competent Authority, any complaint(s) received will be shared with the IEMs.

- (c) The IP as enclosed with the tender is to be submitted (duly signed by authorized signatory) along with techno-commercial bid (Part-I, in case of two! three part bid). Only those bidders who have entered into such an IP with BHEL

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would be competent to participate in the bidding. In other words, entering into this Pact would be a preliminary qualification.

Note:

No routine correspondence shall be addressed to the IEM (phone/ post/ email) regarding the clarifications, time extensions or any other administrative queries, etc. on the tender issued. All such clarification/ issues shall be addressed directly to the tender issuing (procurement) department's officials whose contact details are provided below:

Details of contact person(s):

Name:	Sh V K Arya	Varun Vaidya/ Manager (Purchase)
Dept:	Purchase Department	
Address:	Floor No. 5 & 6, Shreemohini Complex, 345 Kingsway, Nagpur-440001	
Email:	vkarya@bhel.in	vvaidya@bhel.in
Phone:	-	9792334127

16.0 The Bidder has to satisfy the Pre-Qualifying Requirements stipulated for this Tender in order to be qualified. The Price Bids of only those bidders will be opened who will be qualified for the subject job on the basis of satisfying the Pre-Qualification Criteria specified in this NIT as per Annexure-I (as applicable), past performance etc. and date of opening of price bids shall be intimated to only such bidders. BHEL reserves the right not to consider offers of parties under HOLD.

17.0 In case BHEL decides on a 'Public Opening', the date & time of opening of the sealed PRICE BID shall be intimated to the qualified bidders and in such a case, bidder may depute one authorized representative to witness the price bid opening. BHEL reserves the right to open 'in-camera' the 'PRICE BID' of any or all Unsuccessful/Disqualified bidders under intimation to the respective bidders.

18.0 Validity of the offer shall be for **six months** from the latest due date of offer submission (including extension, if any) unless specified otherwise.

19.0 **Reverse Auction:** "BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com (<https://www.bhel.com/guidelines-reverse-auction-2024>))." for this tender. RA shall be conducted among all the techno-commercially qualified bidders.

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

20.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.

21.0 In case the bidder is an "Indian Agent of Foreign Principals", 'Agency agreement has to be submitted along with Bid, detailing the role of the agent along with the terms of payment for agency commission in INR, along with supporting documents.

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22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.

23.0 Void

24.0 The bidder shall submit/upload documents in support of possession of 'Qualifying Requirements' duly self-certified and stamped by the authorized signatory, indexed and properly linked in the format for PQR. In case BHEL requires any other documents/proofs, these shall be submitted immediately.

25.0 The bidder may have to produce original document for verification if so decided by BHEL.

26.0 The consultant / firm (and any of its affiliates) shall not be eligible to participate in tender(s) for the related works or services for the same project, if they were engaged for the consultancy services.

27.0 Guidelines/rules in respect of Suspension of Business dealings, Vendor evaluation format, Quality, Safety & HSE guidelines, Experience Certificate, etc. may undergo change from time to time and the latest one shall be followed. The abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' is available on www.bhel.com on "supplier registration page".

28.0 The offers of the bidders who are on the banned/ hold list and also the offer of the bidders, who engage the services of the banned/ hold firms, shall be rejected. The list of **banned/ hold firms** is available on BHEL web site www.bhel.com.

28.1 Integrity commitment, performance of the contract and punitive action thereof:

28.1.1 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.

28.1.2 Commitment by Bidder/ Supplier/ Contractor:

- (i) The bidder/ supplier/ contractor commit 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.
- (ii) 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.
- (iii) 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.

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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 prices 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 extent guidelines of the company available on www.bhel.com and / or under applicable legal provisions.

29.0 Micro and Small Enterprises (MSE)

~~Any Bidder falling under MSE category, shall furnish the following details & submit documentary evidence/ Govt. Certificate etc. in support of the same along with their techno-commercial offer.~~

Type under MSE	SC/ST-owned	Women-owned	Others (excluding SC/ ST & Women Owned)
— Micro			
— Small			

~~**Note:** If the bidder does not furnish the above, offer shall be processed construing that the bidder is not falling under MSE category.~~

~~a) MSE suppliers can avail the intended benefits in respect of the procurements related to the Goods and Services only (Definition of Goods and Services as enumerated by Govt. of India vide Office Memorandum F. No. 21(8)/2011 MA dtd. 09/11/2016 office of AS & DC, MSME) only if they submit along with the offer, attested copies of either Udyam Registration Certificate or EM-II certificate having deemed validity (five years from the date of issue of acknowledgement in EM-II) or valid NSIC certificate or Udyog Aadhar Memorandum (UAM) & Acknowledgement or EM-II Certificate along with attested copy of a CA certificate (format enclosed as Annexure —3) 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 last date of Technical Bid submission. Non submission of such documents will lead to consideration of their bids at par with other bidders. No benefits shall be applicable for this enquiry if 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. Documents should be notarized or attested by a Gazetted officer. Documents submitted by the bidder may be verified by BHEL for rendering the applicable benefits.~~

30.0 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.

31.0 PREFERENCE TO MAKE IN INDIA:

For this procurement, the local content to categorize a supplier as a Class I local supplier/ Class II local Supplier/Non-Local Supplier and purchase preferences to Class I local supplier, is as defined I Public Procurement (Preference to Make in India), Order 2017 **dated 19.07.2024** issued by DPIIT. In case of subsequent orders issued by the nodal ministry, changing the definition of local content for the items of the NIT, the same shall be applicable even if issued after issue of this NIT, but before opening of Part-II bids against this NIT.

31.1 Compliance to Restrictions under Rule 144 (xi) of GFR 2017

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- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. The Competent Authority for the purpose of this Clause shall be the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade (DPIIT).
- II. "Bidder" (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. "Bidder from a country which shares a land border with India" for the purpose of this Clause means: -
- a. An entity incorporated established or registered in such a country; or
 - b. A subsidiary of an entity incorporated established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose beneficial owner is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above.
- IV. The beneficial owner for the purpose of (III) above will be as under:
1. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together or through one or more juridical person, has a controlling ownership interest or who exercises control through other means.
Explanation
 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty-five per cent of shares or capital or profits of the company.
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements.
 2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership.
 3. In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person has ownership of or entitlement to more than fifteen percent of the property or capital or profits of the such association or body of individuals.
 4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
 5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.

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V. An Agent is a person employed to do any act for another, or to represent another in dealings with third person.

VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

Note:

- (i) The bidder shall provide undertaking for their compliance to this Clause, in the Format provided in **Annexure-11**.
- (ii) Registration of the bidder with Competent Authority should be valid at the time of submission as well as acceptance of the bids.

32.0 Bid should be free from correction, overwriting, using corrective fluid, etc. Any interlineation, cutting, erasure or overwriting shall be valid only if they are attested under full signature(s) of person(s) signing the bid else bid shall be liable for rejection.

All overwriting/cutting, etc., will be numbered by bid opening officials and announced during bid opening.

33.0 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 a 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.

34.0 The Bidder declares that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s). This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.

In case, the Bidder is found having indulged in above activities, suitable action shall be taken by BHEL as per extant policies/ guidelines.

35.0 Order of Precedence:

In the event of any ambiguity or conflict between the Tender Documents, the order of precedence shall be in the order below:

- a. Amendments/Clarifications/Corrigenda/Errata etc. issued in respect of the tender documents by BHEL
- b. Notice Inviting Tender (NIT)
- c. Price Bid
- d. Technical Conditions of Contract (TCC)—Volume-1A
- e. Special Conditions of Contract (SCC) —Volume-1B
- f. General Conditions of Contract (GCC) —Volume-1C
- g. Forms and Procedures —Volume-1D

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It may please be noted that guidelines/ circulars/ amendments/ govt. directives issued from time to time shall also be applicable.

For BHARAT HEAVY ELECTRICALS LTD

(General Manager - Purchase)

Enclosure:

- 1.0 Annexure-1: Pre Qualifying Requirements.
- 2.0 Annexure-2: Check List.
- ~~3.0 Annexure-3: Certificate by Chartered Accountant~~
- 4.0 Annexure-4: Reverse Auction Process Compliance Form
- 5.0 Annexure-5: Authorization of representative who will participate in the online Reverse Auction Process
- 6.0 Annexure-6: RA Price Confirmation and Breakup
- 7.0 Annexure-7: Integrity Pact
- 8.0 Annexure-8: Undertaking as per PQR C4 of Annexure-1 i.e. PQR
- 9.0 Annexure-9: Declaration reg. Related Firms & their areas of Activities
- 10.0 Annexure-10: Declaration regarding minimum local content
- 11.0 Annexure-11: Declaration regarding compliance to restrictions under rule 144 (xi) of GFR 2017
- 12.0 Annexure 12: Important information.**
- 13.0 Other Tender documents as per this NIT

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[ANNEXURE-1](#)

PRE QUALIFYING REQUIREMENT (PQR)

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JOB	Modification of Steam Generator (Boiler) of 200 MW for comprehensive work of availability and efficiency improvement through modification/Overhauling of Boiler back pass/ Boiler Pressure parts, fuel firing system, ducts, milling system & APH and flexible operation at 40% TMCR load without oil support at 200 MW , U#3, GSECL Ukai TPS, DIST – TAPI, (GJ)

S No	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of Qualifying Criteria	Page no of supporting documents . Bidder must fill up this columns as per applicability
A	Submission of Integrity Pact duly signed (if applicable) (Note: To be submitted by Prime Bidder & Consortium /Technical Tie up partner jointly in case Consortium bidding is permitted, otherwise by the sole bidder)		
B	B) Technical PQR Bidder should satisfy the following Criteria's {(B.1 or B.2) and B.3}. B.1 Bidder must have successfully executed Erection, Testing & Commissioning (ET&C) of at least one Boiler in Power Plant (Consisting of Pressure Parts, Structure / ESP and IBR / Power Cycle Piping of the same unit as a Standalone bidder) of rating 100 MW or above in the last Seven Years as on latest date of bid submission. OR B.2 Bidder must have successfully executed at least one similar R & M or Overhauling Work of Boiler in Power Plant of rating 100 MW or above in the last Seven Years as on latest date of bid submission. R&M or Overhauling Work consist of Boiler Pressure Parts & "Structure / Non Pressure Parts / ESP / Rotary Machines / Insulation / Piping / Auxiliaries / Ducting / any combination of these". AND		

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	B.3 B.3.1 One similar work (B.1 or B.2) of value not less than Rs. 762 Lakh. OR B.3.2 Two similar works (B.1 or B.2) each of value not less than Rs. 469 Lakh. OR B.3.1 Three similar works (B.1 or B.2) each of value not less than Rs. 352 Lakh. NOTE : AMC(Annual Maintenance Contract) Work shall not be considered for evaluation.		
C-1	FINANCIAL TURNOVER Bidders must have achieved an average annual financial turnover (audited) of ₹ 351.6 Lakhs or more over last three Financial Years (FY) i.e. '2022-23 , 2023-2024 & 2024-25'		
C-2	NETWORTH (only in case of Companies) Net worth of the Bidder based on the latest Audited Accounts as furnished for 'C-1' above should be positive.		
C-3	PROFIT Bidder must have earned profit in any one of the Five Financial Years as applicable in the last Five Financial Years ("2020-21, 2021-22 , 2022-23 , 2023-24 & 2024-25 as on date") . Bidders to submit audited Balance sheet and Profit & Loss statement for the years as supporting documents.		
C-4	Bidder must not be under Insolvency Resolution Process or Liquidation or Bankruptcy Code Proceedings (IBC) as on date, by NCLT or any adjudicating authority/authorities, which will render him ineligible for participation in this tender, and shall submit undertaking (Annexure-8) to this effect		
D	Assessment of Capacity of Bidder to execute the work as per sl. No 9 of NIT (if applicable)-APPLICABLE		By BHEL
E	Approval of Customer (if applicable)- APPLICABLE Note: Price Bids of only those bidders shall be opened who stands qualified after compliance of criteria A to E		By BHEL
F	Price Bid Opening Note: Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E		BY BHEL
G	Consortium tie-ups (if applicable)		
<u>Explanatory Notes for the PQR (unless otherwise specified in the PQR):</u> <u>Explanatory Notes for PQR B.1 (Technical)</u>			

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1. The evaluation currency for this tender shall be INR.
2. For the criteria (B.1), actual executed value shall be considered.
3. Value of work is to be updated with indices for "All India Avg. Consumer Price index for industrial workers" and "Monthly Whole Sale Price Index for All Commodities" with base month as per last month of work execution and indexed up to three (3) months prior to the month of latest due date of bid submission as per following formula-

$$P = R + \frac{0.425 \times R \times (X_N - X_0)}{X_0} + \frac{0.425 \times R \times (Y_N - Y_0)}{Y_0}$$

Where

P = Updated value of work

R = Value of executed work

X_N = All India Avg. Consumer Price index for industrial workers for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

X₀ = All India Avg. Consumer Price index for industrial workers for last month of work execution

Y_N = Monthly Whole Sale Price Index for All Commodities for three months prior to the month of latest due date of bid submission (e.g. If latest bid submission date is 02-Mar-17, then bid submission month shall be reckoned as March'17 and index for Dec'2016 shall be considered).

Y₀ = Monthly Whole Sale Price Index for All Commodities for last month of work execution

Explanatory Notes for Technical Criteria (B2):

1. VOID
2. Unless otherwise specified, for the purpose of "B2 Technical Criteria", the word 'EXECUTED' means achievement of milestones as defined below -
 - a. "ACHIEVEMENT OF PHYSICAL QUANTITIES" as per PQRs.
 - b. "READINESS FOR COAL FILLING" of at least one Bunker, in respect of Mill Bunker Structure.
 - c. "CHARGING" in respect of Power Transformers/ Bus Ducts/ "HT/LT Switchgears" / "HT/LT Cabling".
 - d. For C&I works: "SYNCHRONISATION" in case of power project (Excluding Nuclear Projects) / "WORK EXECUTION of the value as defined in PQR" in case of industry & Nuclear Projects.
 - e. "BOILER LIGHT UP" in respect of Boiler / CFBC / ESP.
 - f. "CHARGING OF ATLEAST ONE PASS" in respect of ESP(R&M)
 - g. "GAS IN" in respect of HRSG.
 - h. "STEAM BLOWING" in respect of Power Cycle Piping.
 - i. "HYDRAULIC TEST"/ ANY OTHER EQUIVALENT TEST LIKE "100% RT/UT OF WELDED JOINTS" of the system in respect of Pressure parts/ LP Piping/CW Piping.
 - j. "FULL LOAD OPERATION OF THE UNIT" in respect of Insulation work.
 - k. "SYNCHRONISATION" in respect of STG / GTG.
 - l. "SPINNING" in respect of HTG.
 - m. "GAS IN" in respect of FGD
3. Boiler means HRSG or WHRB or any other types of Steam Generator.
4. Power Cycle piping means Main Steam, Hot Reheat, Cold Reheat, HP Bypass.
5. For the purpose of evaluation of the PQR, one MW shall be considered equivalent to 3.5 TPH where ever rating

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of HRSG/BOILER is mentioned in MW. Similarly, where ever rating of Gas Turbine is mentioned in terms of Frame size, ISO rating of the same in terms of MW shall be considered for evaluation.

Explanatory Notes for PQR -C (Financial):

C-1:

- i. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as indicated against C-1 above.
- ii. Evaluation of Turnover criteria shall be calculated from the Audited Balance Sheet and Profit & Loss Account for the three Financial Years (FY).
- iii. In case audited Financial statements have not been submitted for all the three years as indicated against C-1 above, then the applicable audited statements submitted by the bidders against the requisite three years, will be averaged for three years.
- iv. If financial statements are not required to be audited statutorily, then instead of audited financial statements, financial statements are required to be certified by Chartered Accountant.

C-2: Net Worth (Only in case of companies) of the bidder should be positive.

Note: Net worth shall be calculated based on the latest Audited Accounts as furnished for 'C-1' above.

Net worth = Paid up share capital + Reserves

C-3: Bidder must have earned profit in any one of the **Five** financial years as applicable in the last **Five** financial years as furnished for 'C-1' above.

Note: PROFIT shall be PBT earned during any one year of last **Five** financial years as in 'C-1' above.

C-4: Bidder must not be under Bankruptcy Code Proceedings (IBC) by NCLT or under Liquidation / BIFR, which will render him ineligible for participation in this tender, and shall submit undertaking to this effect.

Common Explanatory Notes:

1. For evaluation of PQR, in case Bidder alone does not meet the pre-qualifying technical criteria B1 above, bidder may utilize the experience of its Parent/ Subsidiary Company along with its own experience, subject to following:
 - a. The parent company shall have a controlling stake of $\geq 50\%$ in the subsidiary company (as per Format-1).
 - b. The Parent Company/ Subsidiary Company of which experience is being utilized for bidding shall submit Security Deposit(SD) equivalent to 1% of the total contract value
 - c. The parent/ subsidiary company and bidder shall provide an undertaking that they are jointly or severally responsible for successful performance of the contract (as per Format-2).
 - d. In case Bidder is submitting bid as a Consortium Partner, option of utilizing experience of parent/subsidiary Company can be availed by Prime Bidder only.
 - e. Parent Company/ Subsidiary Company of which experience is being used for bidding, cannot participate as a 'Standalone Bidder' or as a 'Consortium bidder'.
2. Completion date for achievement of the technical criteria specified in the 'B' above should be in the last 7 years ending on the 'latest date of Bid Submission' of Tender irrespective of date of the start of work. Completion date shall be reckoned from the " Financial Year quarter of bid submission". (for e.g. -Work completed on

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01.01.2014 shall be considered even if latest date of bid submission is 20.03.2021).

3. "Executed" means the bidder should have achieved the technical criteria specified in the Common QR even if the Contract has not been completed or closed.
4. In case the Experience/PO/WO certificate enclosed by bidders do not have separate break up of prices for the E&C portion for Electrical and C&I works (i.e. the certificates enclosed are for composite order for supply and erection of Electrical and C&I and other works if any), then value of Erection & Commissioning for the Electrical and C&I portion shall be considered as 15% of the price for supply & erection of Electrical and C&I.
5. Following shall be complied with in case of consortium:
 - a. The Prime Bidder and Consortium Partner(s) are required to enter in to a consortium agreement and certify to BHEL regarding existence and validity of their consortium agreement in line with validity period mentioned in NIT.
 - b. Prime Bidder and Consortium partners shall be approved by Customer for being considered for the tender (applicable if customer approval is required).
 - c. Number of partners including prime Bidder shall be NOT more than 3 (three).
 - d. Prime Bidder alone shall necessarily comply with "B1 Technical Criteria" except for mechanical package where B1 criteria is not applicable.
 - e. Prime Bidder and Consortium Partner shall together comply with the 'Pre-Qualification Requirements' specified for the respective category of technical requirement as per "B2 technical criteria".
 - f. Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified.
 - g. All other conditions shall be read in conjunction with clause no 23.0 of NIT.
 - h. Prime Bidder shall be the Bidder who has a major share of work.
 - i. Prime Bidder shall be responsible for the overall execution of the Contract.
 - j. Performance shall be evaluated for Prime Bidder and the Consortium partner for their respective scope of work.
 - k. In case the Consortium partner backs out, another consortium partner meeting the QRs, has to be engaged by Prime Bidder and if not, the respective work will be withdrawn and executed on risk and cost basis of the prime bidder.
 - l. In case Prime Bidder withdraws or insolvency / liquidation / winding up proceedings have been initiated / admitted against the Prime Bidder, BHEL reserves the right to cancel, terminate or short close the contract or take any other action to safeguard BHEL's interest in the Project / Contract. This action will be without prejudice to any other action that BHEL can take under Law and the Contract to safeguard interests of BHEL
 - m. After successful execution of one work with a consortium partner under direct orders of BHEL, the Prime Bidder shall be eligible for becoming a 'standalone' bidder for works similar to that for which consortium partner was engaged, for subsequent tenders.
 - n. The Consortium partner shall submit SD equivalent to 1% of the total contract value in addition to the SD to be submitted by the Prime Bidder for the total contract value.

BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT INCLUSIVE OF WORK ORDER AND WORK COMPLETION CERTIFICATE ETC IN THE RESPECTIVE ANNEXURES IN THEIR OFFER.

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Credentials submitted by the bidder against “PRE QUALIFYING CRITERIAS” shall be verified for its authenticity. In case, any credential (s) is/are found unauthentic, offer of the bidder is liable to the rejection. BHEL reserves the right to initiate any further action as per extant guidelines for Suspension of Business Dealings.

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Format-1

Certificate for relationship between Parent Company / Subsidiary Company and the bidder

To,

.....

.....

Dear Sir,

Sub: Bid for NIT Nodated..... for "....." (name of the tender).

We hereby certify that M/s..... is Parent Company/ Subsidiary Company of M/s.....(the bidder) and details of equity holding of the Parent Company in Subsidiary Company as on(not earlier than seven days prior to the Bid Submission Date) are given as below:

Name of Parent Company	Name of Subsidiary Company	Percentage of Equity Holding of Parent Company in Subsidiary Company

(Insert Name and Signature of Statutory Auditor or practicing Company Secretary of the Bidder)

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Format-2

Undertaking from the Parent Company/ Subsidiary Company of the bidder

(On the Letter Head of Parent Company/ Subsidiary Company, as applicable)

From,
Name:
Full Address:

Telephone No.:
E-mail address:
Fax/No.:

To,

Dear Sir,

We refer to the NIT No dated for " " (name of the Tender).

"We have carefully read and examined in detail the NIT/Tender Terms and Conditions, including in particular, Clause of the NIT/Tender, regarding submission of an Undertaking, as per the prescribed Format 1 of the NIT/ Tender.

We confirm that M/s.....(the Bidder) has been authorized by us to use our Technical capability for meeting the Technical Criteria as specified in Clause.....of the PQR of the NIT/Tender referred above.

We agree to submit the Security Deposit equivalent to 1% of the total contract value in addition to Security Deposit to be submitted by Bidder as per Clause.....of the NIT/Tender for fulfillment of all obligations in terms of provisions of the contract, in the event of(the Bidder) being selected as the Successful Bidder.

We confirm that we along with M/s.....(the bidder), are jointly or severally responsible for successful performance of the contract.

We confirm that our company shall not participate in the above tender as a 'Standalone Bidder' or as a 'Consortium bidder' and also shall not authorize any other bidder to use our Technical capability for the above tender.

All the terms used herein but not defined, shall have the meaning as ascribed to the said terms under the referred NIT/Tender.

Signature of Managing Director/Authorized signatory of Parent/ Subsidiary Company

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[ANNEXURE-2](#)

CHECK LIST

NOTE: - Tenderers are required to fill in the following details and no column should be left blank

1	Name and Address of the Tenderer		
2	Details about type of the Firm/Company		
3.a	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
3.b	Details of alternate Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Email ID: Fax No:	
4	EMD DETAILS	DD No: Date : Bank : Amount: <u>Please tick (✓) whichever applicable:-</u> ONE TIME EMD / ONLY FOR THIS TENDER	
5	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM DUE DATE	
		APPLICABILITY (BY BHEL)	ENCLOSED BY BIDDER
6	Whether the format for compliance with PRE QUALIFICATION CRITERIA (ANNEXURE-I) is understood and filled with proper supporting documents referenced in the specified format	Applicable	YES / NO
7	Audited profit and Loss Account for the last three years	Applicable/ Not Applicable	YES/NO
8	Copy of GST & PAN Card	Applicable/ Not Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc. are read understood and signed	Applicable/ Not Applicable	YES/NO
10	Integrity Pact	Applicable/ Not Applicable	YES/NO
11	Offer Forwarding Letter / Tender Submission Letter	Applicable/ Not Applicable	YES/NO

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12	Declaration by Authorized Signatory	Applicable/ Not Applicable	YES/NO
13	No Deviation Certificate	Applicable/ Not Applicable	YES/NO
14	Declaration confirming knowledge about Site Conditions	Applicable/ Not Applicable	YES/NO
15	Declaration for relation in BHEL	Applicable/ Not Applicable	YES/NO
16	Non-Disclosure Certificate	Applicable/ Not Applicable	YES/NO
17	Bank Account Details for E-Payment	Applicable/ Not Applicable	YES/NO
18	Capacity Evaluation of Bidder for current Tender	Applicable/ Not Applicable	YES/NO
19	Tie Ups/Consortium Agreement are submitted as per format	Applicable/ Not Applicable	YES/ NO
20	Power of Attorney for Submission of Tender/Signing Contract Agreement Power of Attorney of Consortium Partner.	Applicable/ Not Applicable	YES/NO
21	Analysis of Unit rates	Applicable/ Not Applicable	YES/NO
22	Annexure-5: Authorization of representative who will participate in the online Reverse Auction Process	Applicable/ Not Applicable	YES/NO
23	Annexure-6: RA Price Confirmation and Breakup	Applicable/ Not Applicable	YES/NO
24	Annexure-8: Undertaking as per PQR C4 of Annexure-1 i.e. PQR	Applicable/ Not Applicable	YES/NO
25	Annexure-9: Declaration reg. Related Firms & their areas of Activities (x) Other Tender documents as per this NIT.	Applicable/ Not Applicable	YES/NO
26	Annexure-10 Declaration regarding minimum local content	Applicable/ Not Applicable	YES/NO
27	Annexure-11: Declaration regarding compliance to restrictions under rule 144 (xi) of GFR 2017	Applicable/ Not Applicable	YES/NO

NOTE: STRIKE OFF 'YES' OR 'NO', AS APPLICABLE. TENDER NOT ACCOMPANIED BY THE PRESCRIBED **ABOVE APPLICABLE DOCUMENTS** ARE LIABLE TO BE SUMMARILY REJECTED.

DATE :

Sign of the AUTHORISED SIGNATORY

(With Name, Designation and Company seal)

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ANNEXURE-3

Certificate by Chartered Accountant on letter head

(applicable upto 31st March'2021 in line with MSME notification no. S.O. 2119 (E), dated 26th June'2020)

This is to Certify that M/S _____,
(hereinafter referred to as 'company') having its registered office at _____,
_____ is registered under MSMED Act 2006, (Entrepreneur
Memorandum No (Part II)/ Udyam Registration Certificate No. _____ dtd:
_____, Category: _____ (Micro/Small/Medium)). (Copy enclosed).

Further verified from the Books of Accounts that the investment of the company as per the latest audited financial year
_____ as per MSMED Act 2006 is as follows:-

1. **For Manufacturing Enterprises:** Investment in plant and machinery (i.e. original cost excluding land and building and the items specified by the Ministry of Small Scale Industries vide its notification No. S.O.1722(E) dated October 5, 2006:
1. _____ Rs _____ Lacs
2. **For Service Enterprises:** Investment in equipment (original cost excluding land and building and furniture, fittings and other items not directly related to the service rendered or as may be notified under the **MSMED Act, 2006**:
2. _____ Rs _____ Lacs
3. **For Enterprises** (having EM-II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs. _____ Lacs and turnover is Rs. _____ Lacs (as notified in MSME notification no. S.O. 2119 (E) dated 26.06.2020)
4. **For Enterprises** (having EM-II Certificate/ valid NSIC Certificate or Udyog Aadhar Memorandum): Investment in plant and machinery or equipment is Rs. _____ Lacs and turnover is Rs. _____ Lacs (as notified in MSME notification no. S.O. 2119 (E) dated 26.06.2020)
3. _____ (Strike off whichever is not applicable)
4. _____ The above investment of Rs _____ Lacs is within permissible limit of
5. _____ Rs _____ Lacs for
_____ Micro / Small/ Medium (Strike off which is not applicable)
6. _____ Category under MSMED Act 2006.
7. _____ Or
8. _____ The enterprise has been graduated upward from its original category (micro/small/medium) (strike off which is not applicable), the enterprise shall maintain its prevailing status till expiry of one year from the close of year of registration, as notified vide S.O. No. 2119 (E) dated 26.06.2020 published in the gazette notification dated 26.06.2020 by Ministry of MSME.
9. _____ Or
10. _____ The enterprise has been reverse graduated from its original category (micro/small/medium) (strike off which is not applicable), the enterprise will continue in its present category till the closure of the financial year and it will be given the benefit of the changed status only with effect from 1st April of the financial year following the year in which such change took place, as notified vide S.O. No. 2119 (E) dated 26.06.2020 published in the gazette notification dated 26.06.2020 by Ministry of MSME.
11. _____ Date:

(Signature)

Name:

Membership Number:

Seal of the Chartered Accountant

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ANNEXURE-4

Reverse Auction Process Compliance Form

(The bidders are required to print this on their company's letterhead and sign, stamp before RA)

To

- M/s. {Service provider}
- Postal address}

Sub: Agreement to the Process related Terms and Conditions

Dear Sir,

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the RFQ document for {Items} against BHEL enquiry/ RFQ no. { **BHE/PW/PUR/URB-BOILER/3175** } dt. {.....}

This letter is to confirm that:

- 1) The undersigned is authorized official/ representative of the company to participate in RA and to sign the related documents.
- 2) We have studied the Reverse Auction guidelines (as available on www.bhel.com), and the Business rules governing the Reverse Auction as mentioned in your letter and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the auction tool and have understood the functionality of the same thoroughly.
- 4) We also confirm that, in case we become L1 bidder, we will FAX/ email the price confirmation & break up of our quoted price as per Annexure - 6 within **two** working days (of BHEL) after completion of RA event, besides sending the same by registered post/ courier both to M/s. BHEL and M/s. {Service provider.}

We, hereby confirm that we will honor the Bids placed by us during the auction process.

With regards

Signature with company seal

Name:

Company / Organization:

Designation within Company / Organization:

Address of Company / Organization:

Sign this document and FAX/ email it to M/s {Service provider} at {.....} prior to start of the Event.

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[ANNEXURE-5](#)

Authorization of representative who will participate in the on line Reverse Auction Process:

1	NAME OF THE BIDDER	
2	NAME & DESIGNATION OF OFFICIAL	
3	POSTAL ADDRESS (COMPLETE)	
4	TELEPHONE NOS. (LAND LINE & MOBILE BOTH)	
5	E-MAIL ADDRESS	
6	NAME OF PLACE/ STATE/ COUNTRY, WHEREFROM S/HE WILL PARTICIPATE IN THE REVERSE AUCTION	

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[ANNEXURE-6](#)

Reverse Auction price confirmation and breakup
(To be submitted by L1 bidder after completion of Reverse Auction)

To

- M/s. Service provider
- Postal address

CC: M/s BHEL

BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

Sub: Final price quoted during Reverse Auction and price breakup

Dear Sir,

We confirm that we have quoted.

Rs.{____in value & in words____} for item(s) covered under tender enquiry No. { [BHE/PW/PUR/URB-BOILER/3175](#)} dt.{...}

Total price of the items covered under above cited enquiries is inclusive of {*Packing & forwarding, GST, E.D., C.S.T., freight and insurance charges up to {.....} District,{.....} State and Type Test Charges etc., (exclusive of service tax), other as per NIT*}

as our final landed prices as quoted during the Reverse Auction conducted today {*date*} which will be valid for a period of {____ in nos. & in words ____} days.

The price break-up is as given below.

Total

=====

- Rs. in value & in words

=====

Yours sincerely,

For _____

Name:

Company:

Date:

Seal:

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[ANNEXURE-7](#)

INTEGRITY PACT

Between

Bharat Heavy Electricals Ltd. (BHEL), a company registered under the Companies Act 1956 and having its registered office at "BHEL House", Siri Fort, New Delhi -110049 (India) hereinafter referred to as "The Principal", which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the ONE PART

and

_____, (description of the party along with address), hereinafter referred to as "The Bidder/ Contractor" which expression unless repugnant to the context or meaning hereof shall include its successors or assigns of the OTHER PART

Preamble

The Principal intends to award, under laid-down organizational procedures, contract/s for [E-Tender Spec No: BHE/PW/PUR/URB-BOILER/3175 : Civil, Structural & Architectural Works Comprising of TG foundation strengthening, Vacuum pump foundation, HPSU foundation, Purifier & Duplex filter foundation, minor modification in floor opening in LV Switchgear & C&I area & Associated Work during R&M WORK AT U#3, 200 MW, GSECL UKAI TPS](#)

(hereinafter referred to as "Contract"). The Principal values full compliance with all relevant laws

of the land, rules and regulations, and the principles of economic use of resources, and of fairness and transparency in its relations with its Bidder(s)/ Contractor(s).

In order to achieve these goals, the Principal will appoint panel of Independent External Monitor(s) (IEMs), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1-Commitments of the Principal

- 1.1 The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:
 - 1.1.1 No employee of the Principal, personally or through family members, will in connection with the tender for, or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - 1.1.2 The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential/ additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - 1.1.3 The Principal will exclude from the process all known prejudiced persons.
- 1.2 If the Principal obtains information on the conduct of any of its employees which is a penal offence under the Indian Penal Code 1860 and Prevention of Corruption Act 1988 or any other statutory penal enactment, or if

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there be a substantive suspicion in this regard, the Principal will inform its Vigilance Office and in addition can initiate disciplinary actions.

Section 2 -Commitments of the Bidder(s)/ Contractor(s)

- 2.1 The Bidder(s)/ Contractor(s) commit himself to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commits himself to observe the following principles during participation in the tender process and during the contract execution.
 - 2.1.1 The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to the Principal or to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material, immaterial or any other benefit which he/ she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.
 - 2.1.2 The Bidder(s)/ Contractor(s) will not enter with other Bidder(s) into any illegal or undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant Indian Penal Code (IPC) and Prevention of Corruption Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - 2.1.4 Foreign Bidder(s)/ Contractor(s) shall disclose the name and address of agents and representatives in India and Indian Bidder(s)/ Contractor(s) to disclose their foreign principals or associates. The Bidder(s)/ Contractor(s) 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.
- 2.2 The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.
- 2.3 The Bidder(s)/ Contractor(s) shall not approach the Courts while representing the matters to IEMs and shall await their decision in the matter.

Section 3 -Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/ Contractor(s), before award or during execution has committed a transgression through a violation of Section 2 above, or acts in any other manner such as to put his reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/ Contractor(s) from the tender process , terminate the contract, if already awarded, exclude from future business dealings and/ or take action as per

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the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 4 -Compensation for Damages

- 4.1 If the Principal has disqualified the Bidder (s) from the tender process before award / order acceptance according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
- 4.2 If the Principal is entitled to terminate the Contract according to Section 3, or terminates the Contract in application of Section 3 above , the Bidder(s)/ Contractor (s) transgression through a violation of Section 2 above shall be construed breach of contract and the Principal shall be entitled to demand and recover from the Contractor an amount equal to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee , whichever is higher, as damages, in addition to and without prejudice to its right to demand and recover compensation for any other loss or damages specified elsewhere in the contract.

Section 5 -Previous Transgression

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 (three) years with any other company in any country conforming to the anti-corruption approach or with any other Public Sector Enterprise in India that could justify his exclusion from the tender process.
- 5.2 If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason or action can be taken as per the separate "Guidelines on Banning of Business dealings with Suppliers/ Contractors", framed by the Principal.

Section 6 -Equal treatment of all Bidder (s)/ Contractor (s) / Sub-contractor (s)

- 6.1 The Principal will enter into Integrity Pacts with identical conditions as this Integrity Pact with all Bidders and Contractors.
- 6.2 In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor(s) and ensure that all Sub-contractors also sign the Integrity Pact.
- 6.3 The Principal will disqualify from the tender process all Bidders who do not sign this Integrity Pact or violate its provisions.

Section 7 -Criminal Charges against violating Bidders/ Contractors /Subcontractors

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Vigilance Office.

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Section 8 -Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible panel of Independent External Monitor (s) (IEMs) for this Integrity Pact. The task of the IEMs is to review independently and objectively, whether and to what extent the parties comply with the obligations under this Integrity Pact.
- 8.2 The IEMs are not subject to instructions by the representatives of the parties and performs his functions neutrally and independently. He reports to the CMD, BHEL.
- 8.3 The IEMs shall be provided access to all documents/ records pertaining to the Contract, for which a complaint or issue is raised before them as and when warranted. However, the documents/records/information having National Security implications and those documents which have been classified as Secret/Top Secret are not to be disclosed.
- 8.4 The Principal will provide to the IEMs sufficient information about all meetings among the parties related to the Contract provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the IEMs the option to participate in such meetings.
- 8.5 The advisory role of IEMs is envisaged as that of a friend, philosopher and guide. The advice of IEMs would not be legally binding and it is restricted to resolving issues raised by a Bidder regarding any aspect of the tender which allegedly restricts competition or bias towards some Bidders. At the same time, it must be understood that IEMs are not consultants to the Management. Their role is independent in nature and the advice once tendered would not be subject to review at the request of the organization.
- 8.6 For ensuring the desired transparency and objectivity in dealing with the complaints arising out of any tendering process or during execution of Contract, the matter should be examined by the full panel of IEMs jointly, who would look into the records, conduct an investigation, and submit their joint recommendations to the Management.
- 8.7 The IEMs would examine all complaints received by them and give their recommendations/ views to the CMD, BHEL at the earliest. They may also send their report directly to the CVO, in case of suspicion of serious irregularities requiring legal/ administrative action. Only in case of very serious issue having a specific, verifiable Vigilance angle, the matter should be reported directly to the Commission. IEMs will tender their advice on the complaints within 30 days.
- 8.8 The CMD, BHEL shall decide the compensation to be paid to the IEMs and its terms and conditions.
- 8.9 IEMs should examine the process integrity; they are not expected to concern themselves with fixing of responsibility of officers. Complaints alleging mala fide on the part of any officer of the Principal should be looked into by the CVO of the Principal.
- 8.10 If the IEMs have reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant Indian Penal Code / Prevention of Corruption Act, and the CMD, BHEL has not, within reasonable time, taken visible action to proceed against such offence or reported it to the Vigilance Office, the IEMs may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.11 After award of work, the IEMs shall look into any issue relating to execution of Contract, if specifically raised

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before them. As an illustrative example, if a Contractor who has been awarded the Contract, during the execution of Contract, raises issue of delayed payment etc. before the IEMs, the same shall be examined by the panel of IEMs. Issues like warranty/ guarantee etc. shall be outside the purview of IEMs.

- 8.12 However, the IEMs may suggest systemic improvements to the management of the Principal, if considered necessary, to bring about transparency, equity and fairness in the system of procurement.
- 8.13 The word 'Monitor' would include both singular and plural.

Section 9 -Pact Duration

- 9.1 This Integrity Pact shall be operative from the date this Integrity Pact is signed by both the parties till the final completion of contract for successful Bidder, and for all other Bidders 6 months after the Contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.
- 9.2 If any claim is made/ lodged during currency of this Integrity Pact, the same shall be binding and continue to be valid despite the lapse of this Pact as specified above, unless it is discharged/ determined by the CMD, BHEL.

Section 10 -Other Provisions

- 10.1 This Integrity Pact is subject to Indian Laws and exclusive jurisdiction shall be of the competent Courts as indicated in the Tender or Contract, as the case may be.
- 10.2 Changes and supplements as well as termination notices need to be made in writing.
- 10.3 If the Bidder(s)/ Contractor(s) is a partnership or a consortium or a joint venture, this Integrity Pact shall be signed by all partners of the partnership or joint venture or all consortium members.
- 10.4 Should one or several provisions of this Integrity Pact turn out to be invalid, the remainder of this Integrity Pact remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
- 10.5 Only those bidders / contractors who have entered into this Integrity Pact with the Principal would be competent to participate in the bidding. In other words, entering into this Integrity Pact would be a preliminary qualification.
- 10.6 In the event of any dispute between the Principal and Bidder(s)/ Contractor(s) relating to the Contract, in case, both the parties are agreeable, they may try to settle dispute through Mediation before the panel of IEMs in a time bound manner. In case, the dispute remains unresolved even after mediation by the panel of IEMs, either party may take further action as the terms & conditions of the Contract. The fees/expenses on dispute resolution through mediation shall be shared by both the parties. Further, the mediation proceedings shall be confidential in nature and the parties shall keep confidential all matters relating to the mediation proceedings including any settlement agreement arrived at between the parties as outcome of mediation. Any views expressed, suggestions, admissions or proposals etc. made by either party in the course of

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mediation shall not be relied upon or introduced as evidence in any further arbitral or judicial proceedings, whether or not such proceedings relate to the dispute that is the subject of mediation proceedings. Neither of the parties shall present IEMs as witness in any Alternative Dispute Resolution or judicial proceedings in respect of the dispute that was subject of mediation.

**MANAGER-PURCHASE
BHEL-PSWR-NAGPUR**

For & On behalf of the Principal
(Office Seal)

Place-----

Date-----

Witness: _____
(Name & Address) _____

For & On behalf of the Bidder/ Contractor
(Office Seal)

Witness: _____
(Name & Address) _____

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[ANNEXURE-8](#)

UNDERTAKING

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

To,
GM-PURCHASE
BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

Dear Sir/Madam,

Sub: DECLARATION REGARDING INSOLVENCY/ LIQUIDATION/ BANKRUPTCY PROCEEDINGS

Ref: NIT/Tender Specification No: [BHE/PW/PUR/URB-BOILER/3175](#)

I/We, _____ declare
that, I/We am/are not under insolvency resolution process or liquidation or Bankruptcy Code Proceedings (IBC) as on
date, by NCLT or any adjudicating authority/authorities, which will render us ineligible for participation in this tender.

**Sign. of the AUTHORISED SIGNATORY
(With Name, Designation and Company seal)**

Place:

Date:

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[ANNEXURE-9](#)

DECLARATION

Date: _____

To,
GM-PURCHASE
BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

Sub: **Details of related firms and their area of activities**

Dear Sir/ Madam,

Please find below details of firms owned by our family members that are doing business/ registered for same item with BHEL, _____ (NA, if not applicable).

1	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	
2	Material Category/ Work Description	
	Name of Firm	
	Address of Firm	
	Nature of Business	
	Name of Family Member	
	Relationship	

Note: I certify that the above information is true and I agree for penal action from BHEL in case any of the above information furnished is found to be false.

Regards,

(_____)

From: M/s _____

Supplier Code: _____

Address: _____

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[ANNEXURE-10](#)

**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,
GM-PURCHASE
BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

Dear Sir,

Sub: Declaration reg. minimum local content in line with Public Procurement (Preference to Make in India), Order 2017-Revision, dated 19TH July 2024 and subsequent order(s).

Ref : 1) NIT/Tender Spec No: **BHE/PW/PUR/URB-BOILER/3175**

2) All other pertinent issues till date

We hereby certify that the items/works/services offered by..... *(specify the name of the organization here)* has a local content of _____ % and this meets the local content requirement for '**Class-I local supplier**' / '**Class II local supplier**' ** as defined in Public Procurement (Preference to Make in India), Order 2017-Revision dated 19-07-2024 issued by DPIIT and subsequent order(s).

The details of the location(s) at which the local value addition is made 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 applicable.**

Note:

1. Bidders to note that above format Duly filled & signed by authorized signatory, shall be submitted along with the techno-commercial offer.
2. **In case the bidder's quoted value is in excess of Rs. 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 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.

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ANNEXURE-11

DECLARATION REGARDING COMPLIANCE TO RESTRICTIONS UNDER RULE 144 (xi) OF GFR 2017

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

To,
GM-PURCHASE
BHEL-PSWR, 345, KINGSWAY, NAGPUR-440001

Dear Sir,

Sub: Declaration regarding compliance to Restrictions under Rule 144 (xi) of GFR 2017

Ref : 1) NIT/Tender Spec No: **BHE/PW/PUR/URB-BOILER/3175**,

2) All other pertinent issues till date

I have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India and on sub-contracting to contractors from such countries. I certify that _____ *(specify the name of the organization here),*

a. is not from such a country

b. has been registered with the Competent Authority *(attach valid registration by the Competent Authority, i.e., the Registration Committee constituted by the Dept. for Promotion of Industry and Internal Trade (DPIIT));*

and will not sub-contract any work to a contractor from such countries unless such contractor is registered with the Competent Authority. *(attach relevant valid registration, if applicable)*

I hereby certify that we fulfill all requirements in this regard and is eligible to be considered.

Thanking you,
Yours faithfully,

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

Note: Bidders to note that in case above certification given by a bidder, whose bid is accepted, is found to be false, then this would be a ground for immediate termination and for taking further action in accordance with law and as per BHEL guidelines.

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[ANNEXURE-12](#)

IMPORTANT INFORMATION

E -Tender for this work is invited by BHEL PSWR NAGPUR and offer shall be submitted through BHEL e-procurement portal only. All correspondences regarding this tender shall be through E-procurement portal.

Postal Address:

GM /Purchase BHEL PSWR,
SRIMOHINI COMPLEX, Floor No. 5 & 6, 345 KINGSWAY, NAGPUR 440001, INDIA

Following are the concerned BHEL officials to whom bidders can contact in case of any difficulty:

Manager /Purchase, email: vvoidya@bhel.in, 9792334127

GM Purchase, Email: vkarya@bhel.in. Ph: +91 – 712 – 2858 – 633

1. Refer the abridged version of extant 'Guidelines for suspension of business dealings with suppliers/ contractors' which is available at www.bhel.com on "supplier registration page" at the following link: https://www.bhel.com/sites/default/files/suspension_guidelines_abridged.pdf
2. **"Pradhan Mantri Kaushal Vikas Yojna:** The contractor shall, at all stages of work deploy skilled/semi-skilled tradesmen who are qualified and possess certificate in particular trade from CPWD Training Institute/Industrial Training Institute/ National Institute of Construction Management and Research (NICMAR), National Academy of Construction, CIDC or any similar reputed and recognized Institute managed/ certified by State/ Central Government. The number of such qualified tradesmen shall not be less than 20% of total skilled/semi-skilled workers required in each trade at any stage of work. The contractor shall submit number of man days required in respect of each trade, its scheduling and the list of qualified tradesmen along with requisite certificate from recognized Institute to Engineer-in-Charge for approval. Notwithstanding such approval, if the tradesmen are found to have inadequate skill to execute the work of respective trade, the contractor shall substitute such tradesmen within two days of written notice from Engineer-in-Charge. Failure on the part of contractor to obtain approval of Engineer-in-Charge or failure to deploy qualified tradesmen will attract a compensation to be paid by contractor at the rate of Rs.100 per such tradesman per day. Decision of Engineer-in-Charge as to whether particular tradesman possesses requisite skill and amount of compensation in case of default shall be final and binding".
3. All Statutory Requirements as applicable for this project shall be complied with.
4. **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."
5. Following clause shall form part of the HSE documents issued under Chapter IX of Volume IB 'Special Conditions of Contract'

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“In case of any financial deduction made by Customer for lapses of safety other than what is provided elsewhere in the contract, the same shall be charged on back-to-back basis on the defaulting contractor without prejudice to any other right spelt anywhere in the tender /contract”.

6. The clause 2.7.9.1 below is added under the heading “Rights of BHEL” of General Conditions of Contract Volume-IC GCC:

~~2.7.9.1 Provision of Penalty in case of slippage of Intermediate Milestones:~~

- ~~i) Two major Intermediate Milestones are mentioned as M1 & M2 in Chapter VI: Time Schedule of Vol IA Technical Conditions of Contract.~~
- ~~ii) In case of slippage of these identified Intermediate Milestones, Delay Analysis shall be carried out on achievement of each of these two Intermediate Milestones in reference to Form 14.~~
- ~~iii) In case delay in achieving M1 Milestone is solely attributable to the contractor, 0.5% per week of Executable Contract Value*, limited to maximum 2% of Executable Contract Value, will be withheld.~~
- ~~iv) In case delay in achieving M2 Milestone is solely attributable to the contractor, 0.5% per week of Executable Contract Value*, limited to maximum 3% of Executable Contract Value, will be withheld.~~
- ~~v) Amount already withheld, if any against slippage of M1 milestone, shall be released only if there is no delay attributable to contractor in achievement of M2 Milestone.~~
- ~~vi) Amount required to be withheld on account of slippage of identified intermediate milestone(s) shall be withheld out of respective milestone payment and balance amount (if any) shall be withheld @10% of RA Bill amount from subsequent RA bills.~~
- ~~vii) Final deduction towards LD (if applicable as per clause 2.7.9 above), on account of delay attributable to contractor shall be based on final delay analysis on completion / closure of contract. Withheld amount, if any due to slippage of identified intermediate milestone(s) shall be adjusted against LD or released as the case may be.~~
- ~~viii) In case of termination of contract due to any reason attributable to contractor before completion of work, the amount already withheld against slippage of intermediate milestones shall not be released and be converted into recovery.~~

~~* Executable Contract Value~~ Value of work for which inputs/ fronts were made available to contractor and were scheduled for execution till the date of achievement of that milestone.

7. Acceptance of Bank Guarantee (BG)

Revision in Acceptance of Bank Guarantee (BG) Clause no. 1.10.3 (iii) of Vol I C GCC:

Clause No. 1.10.3 (iii) of Vol IC GCC is revised as below: -

“Bank Guarantee issued by:

- a. Any of the BHEL consortium bank listed below:

State Bank of India
ABN Amro Bank N.V.

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Bank of Baroda
Canara Bank
Citi Bank N.A.
Corporation Bank
Deutsche Bank
HDFC Bank Ltd.
The Hongkong and Shanghai Banking Corporation Ltd
ICICI Bank Ltd.
IDBI Ltd.
Punjab National Bank
Standard Chartered Bank
State Bank of Travancore
State Bank of Hyderabad
Syndicate Bank

- b. Any public sector Bank (other than consortium banks) with a clause in the text of Bank Guarantee that **"It is enforceable at Nagpur, Maharashtra"**.
- c. Any private sector banks, with a clause in the text of Bank Guarantee that **"It is enforceable by being presented at any branch of the bank"**.

Note: "Bank Guarantees issued by Co-operative Banks are not acceptable".

8. Broad Terms & Conditions of Reverse Auction:

In continuation to Clause 19.0 of NIT (Notice Inviting Tender) following are the broad terms and conditions of Reverse Auction:

"BHEL shall be resorting to Reverse Auction (RA) (Guidelines as available on www.bhel.com) (<https://www.bhel.com/guidelines-reverse-auction-2024>) for this tender. RA shall be conducted among the techno-commercially qualified bidders.

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 sealed envelope price bid along with applicable loading, if any, shall be considered for ranking."

Note: -

1. *In case of enquiry through e-procurement the sealed electronic price bid (e-bid) is to be treated as sealed envelope price bid.*
2. *Reverse Auction will be conducted if two or more bidders are techno-commercially qualified.*

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3. *Wherever RA is opted in a tender, the techno-commercially qualified H1 will not be allowed to participate in RA. In case more than one H1 bidder quote the same rate, the Price Offer received last, as per the time log of the Portal, shall be removed first, on the principle of last in, first out by the system.*

4. *However, H1 will be allowed to participate in RA in the following cases:*

a) If number of techno-commercially qualified bidders are only 2 or 3.

b) In case Primary product of only one OEM is left in contention for participation in RA on elimination of H1.

c) For cases where there are more than 3 techno-commercially qualified bidders, if lowest bidder in sealed price bid is non-MSE and H-1 is eligible MSE and H-1 price is coming within price band of 15% of Non-MSE lowest bidder.

d) For cases where there are more than 3 techno-commercially qualified bidders, if lowest bidder in sealed price bid is non-MII and H-1 is eligible MII and H-1 price is coming within price band of 20% of Non-MII lowest bidder.

9. Bidder to strictly follow all the necessary guidelines issued by Customer, District Magistrate, State Government and Central government to control Pandemic/Epidemic outbreak. The related towards quarantine Centre/Medical expenses etc., if any, shall be in the bidder's scope

10. 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 Bidder; **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 authorize only one agent/dealer. There can be only one bid from the following:

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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

g) 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**

h) In case of a 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."

Treatment of cases regarding conflict of interest:

The bidder notes that a conflict of interest would said to have occurred in the tender process and execution of the resultant contract, in case of any of the following situations:

- i) If its personnel have a close personal, financial, or business relationship with any personnel of BHEL who are directly or indirectly related to the procurement or execution process of the contract, which can affect the decision of BHEL directly or indirectly;
- ii) The bidder (or his allied firm) provided services for the need assessment/ procurement planning of the Tender process in which it is participating;
- iii) Procurement of goods directly from the manufacturers/ suppliers shall be preferred. However, if the OEM/ Principal insists on engaging the services of an agent, such agent shall not be allowed to represent more than one manufacturer/ supplier in the same tender. Moreover, either the agent could bid on behalf of the manufacturer/ supplier or the manufacturer/ supplier could bid directly but not both. In case bids are received from both the manufacturer/ supplier and the agent, bid received from the agent shall be ignored. However, this shall not debar more than one Authorised distributor (with/ or without the OEM) from quoting equipment manufactured by an Original Equipment Manufacturer (OEM) in procurements under a Proprietary Article Certificate.
- iv) A bidder participates in more than one bid in this tender process. Participation in any capacity by a Bidder (including the participation of a Bidder as a partner/ JV member or sub-contractor in another bid or vice-versa) in more than one bid shall result in the disqualification of all bids in which he is a party. However, this does not limit the participation of an entity as a sub-contractor in more than one bid if he is not bidding independently in his own name or as a member of a JV.

The Bidder declares that they have read and understood the above aspects, and the bidder confirms that such conflict of interest does not exist and undertakes that they will not enter into any illegal or undisclosed agreement or understanding, whether formal or informal with other Bidder(s), in this regard. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process. In case, the

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Bidder is found having indulged in above activities, the same will be considered as a violation of the tender conditions, and suitable action shall be taken by BHEL as per extant policies/ guidelines

- 11. Bidders kindly to take note that EMD (Earnest Money Deposit) shall be furnished by MSE bidders as well, as per the amount and procedure indicated in the NIT/GCC.**
12. OVER-RUN COMPENSATION Clause no. 2.12 of Vol I C GCC shall not be applicable.
13. PRICE VARIATION COMPENSATION Clause no. 2.17 of Vol I C GCC shall not be applicable.
14. LD/(Delay Penalty – 0.5% per day, maximum up to 10% of contract value
15. Interest bearing recoverable advances- CI no. 2.13 of GCC, is not applicable
- 16. Performance Guarantee of Workmanship for the work done / Defect liability period shall be 24 Months**
17. Limitation of Liability in Clause 2.22 of General Conditions of contract for services/works has been amended as below:
“Notwithstanding anything to the contrary in this Contract or LOA or Work Order 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. Neither party shall be liable to the other for any indirect or consequential loss or damage, including but not limited to loss of use, loss of profits, or loss of contracts, or special, punitive, exemplary losses whatsoever, arising out of or in connection with this contract.
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.”
This shall be the part of General Conditions of Contract for this tender.

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TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: PROJECT INFORMATION

SI No	DESCRIPTION	Chapter
Volume-IA	Part-I: Contract specific details	
1	Project Information	Chapter-I
2	Scope of Works	Chapter-II
3	Special Terms and Other Conditions	Chapter-III
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV
5	Quality Requirements	Chapter-V
6	Time Schedule	Chapter-VI
7	Terms of Payment	Chapter-VII
8	Taxes and other Duties	Chapter-VIII
9	Facilities in the scope of Contractor/BHEL	Chapter-IX
10	Broad BOM	Annexure I
11	PPA of Boiler with Modification details	Annexure II
12	Erection welding schedule for pressure parts	Annexure III
13	GSECL General safety Rules/Norms	Annexure Iv

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - I: PROJECT INFORMATION

1.0 Project Information:

GUJRAT STATE ELECTRICITY CORPORATION LIMITED. (GSECL) UKAI THERMAL POWER PROJECT LOCATED AT SONGARH, DISTT. TAPI IN GUJRAT STATE COMPRISING OF 05 UNITS OF DIFFERENT CAPACITIES. THE WORK/TENDER IS FOR UNIT-3 OF 200 MW. IN THIS UNIT, THE BOILER IS CE DESIGN AND TURBINE IS LMZ DESIGN MANUFACTURED BY BHEL AND COMMISSIONED IN YEAR 1979.

Sl. No.	Description	Details
1.1	Location	Ukai
1.2	Nearest Railway Station	Vyara (30Kms)
1.3	Nearest Airport	Surat (100Kms)
1.4	Access By Road	Vyara (04Kms)
1.5	Major Towns/Cities	Vyara (30Kms) / Surat (100Kms)
1.6	Source of Water	Ukai Reservoir.
1.7	Maximum Temperature	45 degree Centigrade
1.8	Minimum Temperature	10 degree Centigrade

The Bidder shall visit site and get acquainted himself with the conditions prevailing at site before submission of the bid. The information given here in under are for general guidance and shall not be contractually binding on BHEL/ Owner. All relevant site data/information as may be necessary shall have to be obtained /collected by the Bidder.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – II: SCOPE OF WORK

The Bidder shall visit site and get acquainted himself with the conditions prevailing at site before submission of the bid. The information given here in under are for general guidance and shall not be contractually binding on BHEL/ Owner. All relevant site data/information as may be necessary shall have to be obtained /collected by the Bidder.

The work under the scope of these specifications is broadly as follows.

DISMANTLING WEIGHT: 2934 MT APPROX

ERECTION WEIGHT:

Sl.No.	Items	Weight In MT(approx.)
1	Pressure Parts	768
2	Non Pressure Parts	1367
3	Structure	232
4	Refractory & Insulation	480
5	Rotary Machines	450
6	Hangers & Supports	05
	Total	3302

- *This weight is indicative only and may differ as per actual shipping list. Any Quantity Variation shall be considered as per GCC.*

Bidders are requested to have pre-bid visit/ inspection of site to make them fully acquainted with the site situation & nature of job. No claim shall be entertained at later date on account of non-familiarization of site condition.

Contact Details of persons for Site Visit:

Sh Manish Tripathi

BHEL Site Office

U#3&5 Ukai TPS

Email: manish.t@bhel.in

Ph no: +91-9303459132

PRE SHUTDOWN WORK

1. Mobilization of site 45 days before the shutdown of the unit with adequate manpower and T&P for Erection of temporary structures/platforms, arrangement of electric winches, Hydra, cranes, lifting & transporting equipment as required for dismantling & erection activities and fabrication of ducts before the start of shutdown.
2. Arrangement of 150-200 Ton capacity tire mounted Crane with adequate boom length or Jib arrangement for APH dismantling and erection purpose and other erection purposes.

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Chapter – II: SCOPE OF WORK

However, if higher capacity crane shall be required to complete the work, same shall be arranged by bidder at no extra cost. Bidder may visit the site for assessment of capacity & positioning of crane.

3. Identification/Verification of materials to be erected & also as per shipping list (APH, duct, mills & Boiler)
4. Arrangement of consumables like approved welding electrodes, filler wire, Argon, Oxy-acetylene gases, any other special electrode if required etc.
5. Arranging Gate pass & Accommodations for staff & workers to be deployed for the job.
6. Shifting of material to store and T&Ps. Temporary store shall be made/fabricate by contractor as space provided by GSECL
7. To obtain all required statutory approvals like labour license, safety training & insurance, etc.
8. To obtain IBR approvals for work execution & open/ground inspection of materials and work and endorsement of HP welders certificates.
9. Making arrangements for the stay of staff and workers at site.
10. Shifting of special T&Ps to Site.
11. Making arrangements for transportation of staff and workers at site.
12. Transportation Erection Material from BHEL/GSECL Store to Site.
13. Arrangement of hydra, crane, truck, trailer, trolley as required for work.
14. Heat treatment & radiography Facility shall be arranged by contractor in advance.
15. Sky climber/cup lock, if required, for the removal and installation of burner assembly and alignment of the burners, will be in vendor's scope.
16. Enerpac make close height Hydraulic jacks of 50T and 100T capacity - 4 nos. each shall be arranged by the contractor in 100 % working conditions, if required.
17. Removal and re-installation of structure or any other equipment for erection of new component is in bidder's scope.
18. The below Electrodes shall be provided by BHEL, rest other electrodes shall be procured by bidder as required.

DU	WBS Element	DU Desc	Unit	DU Area	DU Qty	DU Wt
F429311299 2001	R2/4293-HT-250-1- 12-992	ER 70S-A1 GTAW ROD DIA2.4MM	KG	WTC	41.20 0	41.20 0
F429311299 2002	R2/4293-HT-250-1- 12-992	ER80S-B2 GTAW ROD DIA.2.4MM	KG	WTC	12.90 0	12.90 0
F429311999 2001	R2/4293-HT-259-1- 19-992	ER 70S-A1 GTAW ROD DIA2.4MM	KG	WTC	15.40 0	15.40 0
F429314299 2001	R2/4293-LU-230-1- 42-992	ER 70S-A1 GTAW ROD DIA2.4MM	KG	WTC	10.00 0	10.00 0
P429318299 2001	R2/4293-HT-927-1- 82-992	ER 70S-A1 GTAW ROD DIA2.4MM	KG	PCC	12.00 0	12.00 0

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – II: SCOPE OF WORK

Note: Bidders are advised to make a site visit to have on hand information about the prevailing site conditions and also accommodation arrangements for his manpower, may meet concerned GSECL officials at site in this regard.

2. SCOPE OF WORK

2.1 Erection & Commissioning of Boiler Pressure parts i.e. Economizer, LTSH, Steam Cooled Wall, Headers, Back Pass roof and Buck Stay, Seal Boxes & Access Doors, Soot Blowers, Skin casing, Removal & application of Insulation of Boilers at Ukai TPS Unit No.3, 200 MW

It is not intent to list out complete scope of services. However, the broad scope of services shall include but not limited to the following: -

- (1) Replacement of existing economizer having staggered design by in-line plain tube economizer with tube size 44.5 X 4.5 mm thick, having the flexibility of provision for providing the erosion protection measures with inlet and intermediate headers. To enhance the heat recovery heating surface area of economizer is increased by providing additional bank of economizer coils and lowering the ring header of back pass and with modification of flue gas ducting keeping the ash extraction level of the eco hopper same. Re-routing of link piping from economizer outlet header to drum & change the elevation of eco feed line.
- (2) Replacement of LTSH coils and re-location of LTSH inlet header in-line with rear wall of second pass and redesigning steam circuit of entire back pass including LTSH.
- (3) Replacement of complete 2nd pass roof and rear steam cool wall and extension of length downwards up to 3 Meters, four side of steam cool wall in order to accommodate additional economizer bank.

BRIEF SCOPE OF WORK:

- a. Replacement of Economizer inlet, intermediate & outlet Header and LTSH inlet & Outlet Header.
- b. Replacement of complete set of Economizer Coils (Upper & Lower Bank) and LTSH Coils (Upper & Lower Bank).
- c. Replacement of piping connecting Economizer Outlet Header to Drum (portion of the pipe to be replaced as per the items supplied).
- d. Replacement of Boiler Back Pass Roof and Rear Wall Panels.
- e. Replacement of Boiler Back Pass Bottom Ring Header.
- f. Replacement of portion of Economizer feed line pipe.

DETAILED SCOPE OF WORK: -

A. ECONOMISER: -

1. Making of opening and erection of temporary platform to facilitate dismantling & erection of Economizer coils.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – II: SCOPE OF WORK

2. Making arrangements for Locking/supporting of LTSH coils, LTSH inlet header & other parts as required.
3. Dismantling and lowering of complete banks of Economizer coils along with headers to ground.
4. Erection, alignment & positioning of newly designed and supplied Economizer inlet, intermediate and outlet headers with its suspension systems & provision of additional bank of economizer coils.
5. Edge preparation of header stubs and terminal tubes
6. Air & steam cleaning of new coils before erection.
7. Fitting of Cassette baffle and various shielding at ground before lifting coils.
8. Erection, alignment & positioning of Economizer Hanger Tubes.
9. Erection, alignment & positioning of newly designed and supplied upper bank and lower bank of Economizer coils (tube size 44.5X4.5).
10. Erection, alignment, fitting & HP welding of all erection joints.
11. Re-routing of eco-link piping from economizer outlet header to drum (few portion of the pipe to be replaced as per the items supplied).
12. Re-routing of connection of boiler feed pipe to economizer inlet header from new elevation of header.
13. 100% radiography of welded joints and heat treatment as per IBR.
14. Closing/restoration of opening made for dismantling/Erection and dismantling of temporary Platforms after completion of replacement
15. Restoration of Insulation & refractory.
16. erection of the eco hopper as per drawing and modification of the existing ash pipe to suit it as per modified eco hopper.
17. Existing beam at 31 mtr elev. Near boiler axis to be removed and new support arrangement to be provided for the existing post.
18. SS Shielding for straight portions of top row (4 rows from either side) of both upper and lower banks

B. LTSH:

1. Making of opening and erection of temporary platform to facilitate dismantling & erection of LTSH coils.
2. Making arrangements for Locking/supporting of Economizer coils, LTSH inlet header & other parts as required.
3. Dismantling and lowering of complete banks of LTSH coils along with headers to ground.
4. Erection, alignment & positioning of newly designed and supplied LTSH inlet and outlet headers with its suspension systems & other supporting system.
5. Erection, alignment & positioning of LTSH Terminal Tube Panels (TT Panels).
6. Edge preparation of header stubs and terminal tubes.
7. Steam cleaning of new coils before lifting to position.
8. Fitting of Cassette baffle and various shielding at ground before lifting coils.

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9. Erection, alignment & positioning of newly designed and supplied LTSH coils upper and lower bank.
10. Erection, alignment, fitting & HP welding of all erection joints.
11. Fitting of scalloped bar at top of LTSH top bank. If scalloped bar is not available with GSECL, same has to be fabricated at site by material given by GSECL.
12. Closing/restoration of opening made for dismantling/Erection and dismantling of temporary Platforms after completion of replacement.
13. 100% radiography of welded joints and heat treatment as per IBR.
14. Restoration of Insulation & refractory.

C. STEAM COOLED WALL AND BACKPASS ROOF:

1. Dismantling and lowering of back pass rear panels, back pass roof and lower ring header of back pass to ground.
2. Erection, alignment & positioning of addition Steam cooled wall panels/tubes of all four sides to extend the length of Steam Cooled Walls.
3. Erection, alignment & positioning of newly designed and supplied Lower Ring header of back pass as per Drgs. (Lowering of ring header of back pass for creating space for additional eco coil bank below the existing economizer coils).
4. Erection, alignment & positioning of newly designed and supplied Roof and Rear walls panels of back pass & fins welding of panels.
5. 100% radiography of welded joints and heat treatment as per IBR.
6. Restoration of Insulation & refractory.
7. Erection, alignment & positioning of spool pieces' insertion in SH. Screen tube, SH. Hanger tube and supply piping for extended side inlet pipes.
8. Erection, alignment, fitting & HP welding of all erection joints.
9. Replace the refractory and skin casing of radiant roof to ensure proper sealing.
10. Re-erection of existing buck stays if required.
11. Fitting/welding of loose attachment items like scalloped bars, fins, stirrups, stirrup connecting bolts to beams required for buck stay re-fixing works.
12. Erection of additional seal boxes and access doors.

D. Radiant Roof Skin Casing:

1. Replacement of Pourable refractory and skin casing of Radiant roof (I & II Pass).
2. Welding of skin casing of radiant roof by BHEL approved electrode and sealing should be leak proof.

E. Buck Stays &Grills:

13. Removal and re-fixing of the existing buckstay's for the work of replacement of back pass rear wall and additional length of SCW.
14. Erection, fitting & alignment of additional one elevation of Buck Stays in Boiler Back Pass.
15. Application of refractory between buck stay channel and beam.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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16. Dismantling and re-installation of backstay, wherever required.
17. Removal & application of refractory, insulation & sheet of SCW for additional one elevation of buck stay.
18. Dismantling & re-installed of grill if required and additional installation of grills.

F. Seal Boxes & Access Doors:

1. Erection and fitting of new seal boxes and access door in back pass.
2. Removal & application of insulation and refractory.
3. Filling up refractory as required.

G. Soot Blowers:

1. Relocation of existing soot blowers to match the redesigned economizer coils bank.
2. Erection of piping and re-routing of piping as per new location of soot blowers in back pass.
3. Removal & application of insulation and refractory.
4. Insulation of soot Blowers steam piping.

H. Supporting structure and grills:

1. All grills at 18 mtr operating floor, APH surrounding area are to be completely replaced.
2. Additional approach to be provided in economizer and LTSH area.
3. Additional approach at other location to be done as per site requirement and modification/replacement R&M scope.

I. BOFA

1. Cutting of water wall panels in the 1st pass.
2. Welding of loose tubes of the BOFA panel.
3. Erection and fixing of the BOFA panel and its supporting.
4. Down comer to be suitably modified to avoid interference with BOFA duct.
5. Alignment of the BOFA panel to be checked.
6. Supporting of the BOFA panel.
7. Insulation in the front and side outer panel.
8. Sky climber to be installed to check +/- 30° movement of the tilt from inside. Contractor to arrange bevel protector to check the tilting angle.
9. Local structure strengthening to be done as per drawing.

J. Terminals Points: -

1. Feed water- Eco inlet pipe, Link Pipe from Eco outlet header.
2. LTSH- Outlet Header.

Note:-

- Since APH work to be carried out parallel with boiler work, subcontractor has to Provide/fabricate platform or protection roof in bottom of Economizer so that APH work mat carry out safely.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

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- Removal and re-installation of any other component in order to complete the job is in bidder's scope.
- Any minor modification required to complete the job is in bidder's scope.
- Any other work required to be done in order to complete the job will be in bidder's scope

- *Quantity of Material Supplied for E&C: - Annexure-I*

2.2 Erection & Commissioning of Regenerative Air Preheaters and duct, dampers at Ukai TPS Unit No.3

It is not intent to list out complete scope of services. However, the broad scope of services shall include but not limited to the following: -

Replacement of existing air preheater having PA sector angle 50 degree by new air preheater having size 27.0 VIMT 2000 (72°) with Modification/replacement of required ducting , expansion joints and dampers as mentioned in scope of work

BRIEF SCOPE OF WORK:

- **Regenerative APH: -**
 - a. Dismantling of existing air preheater rotor and its Housing.
 - b. Dismantling of all sector plates (Hot/Cold), Seal plates, Drive arrangement including auxiliary drive, flue gas & Air (Hot/Cold) duct and dampers as applicable.
 - c. Removal and replacement of seals, heating element, cleaning & water washing device, fire sensing device, access door, deluge system, Element Handling arrangement, lubricating oil circulating system (Guide bearing and support bearing) etc.
 - d. Replacement APH rotor with new Modular rotor and heating elements.
 - e. Erection of new rotor housing, all sector plate (Hot/cold), seal plate, access door, Drive arrangement including auxiliary drive, flue gas & air (Hot/Cold) duct and damper as applicable.
 - f. Erection of new observation Port & Light assembly and deluge system, rotor stoppage alarm etc.
 - g. Erection of new bearing housing for guide bearing and support bearing.
 - h. Erection of Drive Mechanism including auxiliary Drive.
 - i. Carefully dismantling and storage of C&I items and instrument and re-installation of the same.

DETAILED SCOPE OF WORK: -

1. Preparation of arrangements like installation of electric winches, chain pulley blocks, structures for facilitating dismantling and erection of Air Pre-heater components.
2. Insulation removal and cut & removal of Hot Air /Cold Air ducts & expansion joints as required.

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3. Removal of existing structures/air lines, channel/beam support of APH etc. as per site requirement to facilitate dismantling and erection of Air Pre-heater components and rest.
4. Verification of APH components received from Ranipet and shifting of the same from stores/yard to work spot during execution of job. Storing the same after the completion of the work.
5. Dismantling of existing Rotary Air Pre-heaters. (2 Nos).
6. **Removal of dismantled materials /scrap and its transportation to scrap yard on day-to-day basis. No accumulation of scrap / cut materials at site will be allowed.**
7. Dismantling & Replace with New Material and assembly of APH drive unit.
8. Cut & removal of existing flue gas duct from economiser outlet to APH inlet.
9. Cut & removal of existing APH housing (air side & gas side).
10. Cut & removal of existing primary centre sections at both cold & hot ends.
11. Cut & removal of existing axial seal plate assembly (primary).
12. Cut & removal of existing floor grills to facilitate dismantling and erection of Air Pre-heater components.
13. Removal of all Seals, Bypass Angles, T-Bars, all Heating Elements at CE/HE etc.
14. Removal of HE& CE Conn plates & Primary Centre section.
15. Removal of Hot & Cold End Sector Plates.
16. Removal of Guide & Support Bearing assemblies.
17. Removal of Hot end, Cold end centre section & Rotor Post with Trunnion & removal of complete Rotor Assembly.
18. Removal of dismantled / cut materials and its deposition at an identified area within the plant after weighing.
19. Shifting of existing support beam as required for increase in the opening of PA sector angle.
20. Shifting/ relocate/dismantling /erection of support structure, column, beam or channels etc of APH which is essential for APH E&C including all associated item.
2. Complete Erection of Air Heater with all supplied materials. Details of materials supplied are enclosed. Total weight of the components to be erected: 500.000 M Tons. (10% variable in increasing order).
3. Installation of Cold End centre section, Guide brg., Rotor Post with support Trunnion, Hot End centre section & Support Brgs and alignment of Rotor Post.
4. Erection of Rotor Modules with Heating Element baskets.
5. Installation of CE & HE Primary centre section & Connecting plates.
6. Complete replacement of APH rotor housing, connecting plates, etc.
7. Erection of Rotor angles, T-bars, by pass angles etc. at Hot & Cold ends Housing panels.
8. Installation & setting of Pin-Rack assembly.
9. Installation & setting of all seals.
10. Replacement & erection of Lube oil system/ Seal Air lines and Soot Blowers/Water Washing system.
11. Replacement & erection of Lube oil system/ Seal Air lines and Soot Blowers/Water Washing system.
12. Erection of Drive Assembly, alignment and Trial run of APH.

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13. Modifications to Primary Air ducts for both inlet & outlet of APH to match the new openings of Primary and Secondary Air ducts for both inlet & outlet of APH to match the new openings as per drawing.
14. Replacement of Expansion Joints at economiser outlet, APH inlet & outlet and also at inlet & outlet of SA and PA ducting along with dampers as supplied.
15. Replacement of Dampers with actuators, expansion joints at inlet & outlet of SA and PA ducting.
16. Modification / Replacement of Hot Air & Cold Air ducts to match new openings as per requirement.
17. Removal and Application of Insulation along with cladding of Air Pre-heater housing and Air & Gas ducting.
18. Application of Insulation and cladding of complete Air Pre-heater, hot air & cold air and flue gas ducting (to cover modification / replaced areas only).
19. Restoration of removed structures, ducts, floor grills, air lines, etc.
20. Dismantling of all temporary arrangements made for the job execution and area clearing.
21. Replacement of Louver Dampers with Actuator as supplied.
22. Seal welding of all APH split joints and complete ducting.
23. Carefully dismantling and storage of C&I items and instrument and re-installation of the same or new.
24. Providing assistance for carrying out testing and commissioning of Air Pre-heaters.
25. Providing assistance for all other testing conducted by BHEL.
- 26. Painting of the components is in the bidder's scope, paint shall be supplied by BHEL.**
27. replacements of the duct/duct plates, repair/replacement of internal and external support members, stiffeners, internal bracings, repair of flow modification devices like turning vanes/ deflector plates/flow splitters/guide vanes/etc, gas flow control devices, access doors, ash evacuation doors, maintenance access doors, hoppers etc.
28. existing soot blower of APH and existing piping to be retained and re-used.
- 29. Removal and re-installation of any other component in order to the complete the job is in bidder's scope.**
- 30. Any minor modification required to complete the job is in bidder's scope.**
- 31. Any other work required to be done in order to complete the job will be in bidder's scope**

Note:

- Total weight of materials to be erected: **450 MT (approx.).**
- Bidder to arrange equipment for handling of heavy materials along with Hydra, truck, trailer, etc. As per site requirement to be arranged by the contractor.
- Availability of Oxy-acetylene gases & welding electrodes at all times is to be ensured by the contractor.
- Replacement / Repairs /Erection of any other components not specifically indicated above but essentially required for the completion of modification work.
- Arrangement of scaffolding materials.
- Welding of all APH split joints / ducting should be done with E-7018 & E-8018 electrodes. If required special electrode shall be arranged by contractor.
- KLT on welded joints of ground fabricated joint and ATT of complete duct system as per procedure after completion of erection and welding of the ducts.

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Chapter – II: SCOPE OF WORK

- **Quantity of Material Supplied for E&C: - Annexure-I**

Terminals Points for duct replacement: -

<u>Sl.No.</u>	<u>Area</u>	<u>Description</u>
1	Secondary Air duct	FD fan Outlet to APH I/L
2	Secondary Air duct	Secondary air APH O/L to Windbox
3	Primary Air Duct	PA fan O/L to APH I/L
4	Primary Air Duct	Cold PA from PA O/L to Mills
5	Primary Air Duct	Hot PA APH O/L to Mills I/L
6	Flue gas duct	Eco O/L to APH I/L
7	Flue gas duct	APH O/L to BOF

Dampers to be replaced: (This list is indicative and actual quantity is as per shipping list/drawing)

<u>Sl.No.</u>	<u>Area</u>	<u>Description</u>
1	Secondary air system	SCAPH dampers
		SA APH I/L damper
		SA APH O/L damper
2	Flue gas system	Flue gas APH I/L damper
		Flue gas APH O/L damper
3	Primary Air system	PA APH I/L damper
		PA APH O/L damper
		All mills hot air gate
		All mills hot air damper
		All mills cold air gate
		All mills cold air damper

Bellows to be replaced: (This list is indicative and actual quantity is as per shipping list/drawing)

- All the bellows in the Air and Primary air circuit to be replaced along with the ducts.

2.3 Boiler Insulation and Refractory lining insulation at Ukai TPS Unit No.3

It is not intent to list out complete scope of services. However, the broad scope of services shall include but not limited to the following: -

Broad scope of work:

1. Removal and reapplication of refractory and skin casing in the 1st Pass roof.
2. Removal and reapplication of refractory and skin casing in the 2nd Pass roof.
3. Removal and application of supplied insulation along with cladding, as per insulation schedule and drawing, in the **complete back pass steam cooled walls** from back pass top to bottom ring headers including back pass headers.

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4. Any attachment /pin/hook welding required for the application of insulation is in bidder's scope.
5. Bidder to consider additional 3000 sq m for the existing damaged area of boiler, duct, HP piping etc as mutually agreed with customer.
6. Removal and application of all the insulation along with cladding as per drawing, from the complete Secondary air and Primary air duct being modified/replaced.
7. Replacement of insulation of completed penthouse enclosure and refractory on top and inside of enclosure
8. Refractory in all the buckstays, both re-erected after dismantling and newly erected.
9. Refractory in the top & bottom of the SOFA burners from inside.

Quantity of Material Supplied for E&C :- Annexure-I

2.4 Replacement of Ducts with interconnections including expansion bellows, flow meters, insulation, hangers, gates and dampers with all instruments at Ukai TPS Unit No.3

It is not intent to list out complete scope of services. However, the broad scope of services shall include but not limited to the following: -

Detailed scope of work:

- a. Replacement of Hot Secondary air ducting from APH to Windbox.
- b. Replacement of cold secondary air ducting from FD fan outlet damper to APH I/L.
- c. Replacement of Hot Primary air ducting from APH outlet to individual mills inlet.
- d. Replacement of cold primary air ducting from PA fan outlet damper to APH and PA fan Outlet to individual mill.
- e. Replacement of flue gas ducting from Eco outlet to APH inlet.
- f. Replacement of APH flue gas outlet to BOF (Boiler outlet flange).
- g. Erection of Duct from SA duct to BOFA and its support.
- h. Other than above, there will be other potential leakage area & erode section and shall be rectified /replaced during the execution of work. Bidder to consider 10 MT 5/6 mm plates & steel materials to attend such leakage per unit.
- i. Complete SCAPH system including dampers.
- j. Dismantling & re-installation of SCAPH piping as per drawing.
- k. All the hangers and supports in SCAPH system to be erected and insulation to be applied.
- l. Replacement of Hot secondary air duct damper & eco outlet to APH flue gas duct damper
- m. Replacement of PA APH I/L and O/L damper
- n. Replacement of HAD, CAD, HAG and CAG of the Primary air circuit of all mills along with its power cylinder and air receiver tanks placement.
- o. Instrument air piping from the main header the individual newly replaced pneumatic item.
- p. Replacement of all the expansion joint in the replaced portion of all ducting.
- q. Providing support for re-routed link from eco to drum and for eco inlet piping.

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Chapter – II: SCOPE OF WORK

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- r. Replacement of insulation (removal and application) of boiler component, ducting of flue gas, hot PA and Hot SA.
 - s. Duct kerosene leak test to be carried out in pre-fabricated ducts.
 - t. ATT of the complete ducts to be carried out using fans and blowers. (fan and blower in scope of customer)
 - u. Repairing of the Windbox LHS & RHS.
 - v. Carefully dismantling and storage of C&I items and instrument and re-installation of the same.
 - w. Modifications to Primary Air ducts for both inlet & outlet of APH to match the new openings of Primary and Secondary Air ducts for both inlet & outlet of APH to match the new openings as per drawing.
 - x. Replacement of Expansion Joints at economiser outlet, APH inlet & outlet. and also at inlet & outlet of SA and PA ducting along with dampers as supplied.
 - y. Replacement of Dampers with actuators, expansion joints at inlet & outlet of SA and PA ducting.
 - z. Modification / Replacement of Hot Air & Cold Air ducts to match new openings as per requirement.
 - aa. Removal and Application of Insulation along with cladding of Air Pre-heater housing and Air & Gas ducting.
 - bb. Application of Insulation and cladding of complete Air Pre-heater, hot air & cold air and flue gas ducting (to cover modification / replaced areas only).
 - cc. Restoration of removed structures, ducts, floor grills, air lines, etc.
 - dd. Dismantling of all temporary arrangements made for the job execution and area clearing.
 - ee. Removal and re-installation of any other component in order to complete the job is in bidder's scope.
 - ff. All the support as per drawing to be installed.
 - gg. Any minor modification required to complete the job is in bidder's scope.
 - hh. Any other work required to be done in order to complete the job will be in bidder's scope

Note:

- the tentative tonnage for erection is around 450 tonnes for ducts and 275 tonnes for gates and dampers. (including 10 % extra).
- Duct KLT to be done, all internal support to be welded and DP to be done as per quality plan before erection of pre-fabricated ducts.
- ATT to be done for all the erected ducts after completion of the circuit.
- Hook/pin welding to be done wherever required for insulation.
- All the scaffolding arrangement for the duct erection, insulation, ATT to be arranged by vendor.
- Removal and re-installation of structure or any other equipment for duct erection is in bidder's scope.
- Tapping points for instruments installation to be installed by vendor.

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2.5 Replacement of SH & RH control station at Ukai TPS Unit No.3

It is not intent to list out complete scope of services. However, the broad scope of services shall include but not limited to the following: -

Detailed scope of work:

- a. Removal and re-installation of new supplied SH spray station including control valves, isolation valve, flow nozzle,
- b. Removal and re-installation of new supplied RH spray station including control valves, isolation valve, flow nozzle,
- c. Removal and re-installation of MS stop valve actuator.
- d. Welding and NDT of all the components to be performed and per drawing, FQP and EWS.
- e. Application of insulation and cladding on all the spray pipes and valves.
- f. Removal and re-installation of any other component in order to the complete the job is in bidder's scope.
- g. All the support as per drawing to be installed.
- h. Any minor modification required to complete the job is in bidder's scope.
- i. Any other work required to complete the job will be in bidder's scope.

Quantity of Material Supplied for E&C :- Annexure-I

2.6 Replacement of Fuel firing system at Ukai TPS Unit No.3

It is not intent to list out complete scope of services. However, the broad scope of services shall include but not limited to the following: -

Detailed scope of work:

- a. Removal and re-installation of HEA ignitors system.
- b. Removal and re-application of Scanner air system including complete piping i.e. from FD fan discharge in suction, seal air fan discharge, instrument tapping points, support.
- c. Installation of an additional new air cooled oil burner at CD elevation.
- d. Removal and installation of new Temperature control valve and pressure control valve in the fuel control station.
- e. Removal and installation of new burner tilt power cylinder.
- f. Removal of old SADC cylinders along with the vanes and installation of newly supplied SADC system with vanes. Cutting and welding of the mounting shaft will be in vendor's scope.
- g. Removal of the old burner nozzle and installation of newly supplied modified coal burner assembly. (Coal nozzle, nozzle tips of coal, oil and air) low Nox. Insulation/refractory in the burner panel will be in vendor's scope. Sky climber/cup lock, if required, for the removal and installation of burner assembly and alignment of the burners, will be in vendor's scope.
- h. Replacement of control valves and trip valves in HFO/and LDO station at operating floor. Before dismantling, all the oil to be drained and insulation to be removed. Vendor to carry out fuel oil flushing in supervision of BHEL and vendor to carry out necessary temporary piping arrangement for flushing. Lines to be normalised as per drawing.

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- i. Removal of all the corner fuel oil skids and installation of newly supplied fuel oil skids (all control, scavenging, air, steam valves, piping, and control instruments). All the cutting and welding will be in vendor's scope. Insulation of the corner skids to be done after re-installation.
- j. Welding and NDT of all the components to be performed and per drawing, FQP and EWS.
- k. Removal and re-installation of any other component in order to complete the job is in bidder's scope.
- l. All the support as per drawing to be installed.
- m. Any minor modification required to complete the job is in bidder's scope.
- n. Any other work required to complete the job will be in bidder's scope.

2.7 Replacement of Milling system at Ukai TPS Unit No.3

It is not intent to list out complete scope of services. However, the broad scope of services shall include but not limited to the following: -

Detailed scope of work:

- a. **Classifier Assembly:**
 - o Removal of the existing classifier assembly.
 - o Installation of newly supplied dynamic/static classifier assembly.
 - o Installation of MDV of mills.
- b. **Mill Internal Component Replacement:**
 - o Removal of existing and installation of new:
 - Inner cone with ceramic lining.
 - Journal opening frame liners and journal head liner assembly.
 - Mill top plates with liners.
 - o Ensure sealing and proper orientation as per BHEL instructions.
- c. **Mechanical Face Seal:**
 - o Dismantling of existing mechanical face seal.
 - o Installation of new design seal and modification of mounting, if required, including journal housing area preparation.
- d. **Scraper Assembly:**
 - o Removal of existing scraper assembly.
 - o Installation of new scraper assembly along with spring and support block.
 - o Replacement of scraper wear plates and bottom liners.
 - o Gap setting and welding as per manual instructions.
- e. **Mill Discharge Valve Assembly:**
 - o Removal of existing discharge valve (knife gate type).
 - o Installation of new discharge valve assembly or distance piece based on site condition.
 - o Removal of any fouling of Air header, actuator wiring, and pneumatic tubing etc. as applicable and assistance in restoration.
- f. **Coupling and Orifice:**
 - o Replacement of vertical coupling.

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- Removal/replacement of coal orifices to match modified configuration.
- g. **Mill Body Repairs:**
 - Inside and outside repair by weld filling, hard facing or patchwork.
- h. Electrode consumption limit: 15 KG per mill
- i. **Coal Pipe Hanger Supports:**
 - Replacement of damaged coal pipe hanger supports — approx. **10% of total existing supports.**
- j. **Coal Piping:**
 - Dismantling and replacement of approximately **150 meters of coal pipe.**
 - Replacement of **24 nos. mill discharge bends**, including matching flanges, gaskets, and Victaulic couplings.
- k. **Grinding Elements / Vane Wheel:**
 - Inspection of vane wheel and grinding rolls.
 - Replacement or modification of vane wheel segments or grinding rolls if found excessively worn during disassembly.
 - Reassembly to ensure correct ring-to-roll and journal-to-spring assembly gaps.
- o. **Gearbox (PGB) and Lubrication System**
 - Alignment and connection of PGB with motor.
 - Pre-commissioning checks and trial run of planetary gearbox.
 - Modification/repair in lube oil system
 - Support in Flushing, oil charging
- p. **Seal Air System Checks**
 - Modification/repair of seal air availability at journal shaft, spring housing, and inner cone area to prevent coal dust ingress.
 - labyrinth seal checking/replacement if required.
- q. **Journal Assembly (if required)**
 - Removal and reinstallation of journal assembly including trunnion shaft, bearings, grinding rolls.
 - Oil charging in journal housings as per recommended schedule.
 - Alignment and pre-torque tightening of journal bolts
- r. **Replacement of bull ring assembly and bowl extension ring**

Note:

- Removal and re-installation of any other component in order to complete the job is in bidder's scope.
- Any minor modification required to complete the job is in bidder's scope.

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- Any other work required to be done in order to complete the job will be in bidder's scope

2.8 Commissioning of system/Boiler at Ukai TPS Unit No.3

It is not intent to list out complete scope of services. However, the broad scope of services shall include but not limited to the following: -

Detailed scope of work:

1. Provide manpower assistance during the commissioning of Boiler after the completion of restoration works.
2. Cutting and temporary piping arrangement of MS line for steam blowing of pipes and again restoration of MS pipes after completion of steam blowing.
3. Provide manpower assistance for safety valve floating of the boiler.
4. Provide manpower support for installation of instruments and other works during the conductance of PG test of Boiler.
5. **Bidder to provide assistance for Alkali boil-out of the boiler as per direction of BHEL personnel.**
6. **Bidder to arrange required quantity of Tri-sodium phosphate(TSP) and di-sodium phosphate(DSP) for the alkali boil-out of boiler. The material to be procured is in consultation with BHEL engineer. Test certificate of the same to be submitted by the vendor. The quantity of TSP 600 kg & DSP- 300 kg.**
7. **Bidder to procure around 10 ltrs of HCL and 50 ltrs of NaOH for the chemical cleaning of APH lube oil lines.**
8. Providing assistance for all other testing conducted by BHEL (PET, PG Test, Chemical Cleaning etc.)

2.9 Construction Power (Chargeable):

1. Construction Power shall be made available to the Contractor at 415 V feeders of LT substation located at Single point in the plant. Contractor shall be fully responsible to make all the arrangement beyond these LT feeder points for further distribution to meet all construction power requirements for the entire area in scope of this package.
2. Supply, erection, testing and commissioning of 415V switchboards, power and control cables, DC Systems etc. under the Contractor's scope. All necessary statutory requirements for charging construction power Contractor's network shall be in the Contractor's scope.
3. Contractor shall deploy and install required energy meter, cables, fuses, distribution boards, switchboards, bus bars, earthing arrangements, protection devices and any other installation as specified by statutory authority/act. Capacitor Bank is to be arranged by vendor for power factor improvement of the system as per I. E. Rule.

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4. Contractor shall also obtain approvals of appropriate authority and pay necessary fees, levies etc towards the clearance of such installations, prior to use. Sufficient power factor compensation equipment's like capacitor shall be provided by contractor for reactive loads like welding machines etc. In case of any fine/penalty on account of low power factor, same shall be shared by contractor proportionately according to power consumption.
5. Contractor shall make necessary arrangements for onward distribution of construction power taking due care of surrounding construction activities like movement of cranes & vehicles, civil work, fabrication/construction/assembly/erection etc. and safety of personnel. It may become necessary to relocate some of the installations to facilitate work by other agencies or by him.
6. It shall be the responsibility of the Contractor to provide, maintain the complete installation on the load side of the supply with due regard to the safety requirements at site. All cabling and installations shall comply in all respects with the appropriate statutory requirements. The installation and maintenance of this shall be done by licensed and experienced electrician.
7. While reasonable efforts will be made to ensure continuous electric power supply, interruptions cannot be ruled out and no claim from the Contractor shall be entertained on this account such as idle labor, extension of time etc. The Contractor shall adjust his working shift accordingly and deploy additional manpower, if necessary, so as to achieve the target.
8. Contractor shall be well equipped with back-up power supply arrangement like DG set and diesel operated welding machine etc. to tackle situations arising due to failure of supplied power, so as to ensure continuity and completion of critical processes that are underway at the time of power failure or important activities planned in immediate future.
9. BHEL is not responsible for any loss or damage to the Contractor's equipment as a result of variations in voltage or frequency or interruptions in power supply.
10. The charges for the actual energy consumed by contractor shall be recovered on relevant rate of Discom and as specified in specification.
11. For initial few month bidder may have to arrange DG with suitable capacity for construction power at its own cost.

GENERAL: -

If any other voltage level (other than normally available) is required, the same shall be arranged by the contractor from power supply as above by use of suitable electrical equipments. Contractor will have to provide at his own cost necessary calibrated energy meters (tamper proof, suitably housed in a weather proof box with lock & key arrangement) at point of power supply along with calibration certificate from authorized / accredited agency for working out the power

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consumption. In case of recalibration required for any reason the necessary charges including replacement by calibrated meters is to be borne by the contractor. Supply of electricity shall be governed by Indian Electricity Act and Installation Rules and other Rules and Regulation as applicable. The contractor shall ensure usage of electricity in an efficient manner and the same may be audited by BHEL time to time. In case of any major deviation from normally accepted norms is observed, BHEL will reserve the right to impose penalty as deemed fit for such cases.

2.10 Construction Water:

BHEL will provide construction water at single location (Duty and taxes for water, if levied by the GSECL., shall be payable by the Bidder). Distribution will be in bidder scope.

Note: Due to any constraint at site if BHEL fails to provide construction water, contractor may have to arrange for construction water on its own. Any cost implication of the same shall be to the account of contractor and no extra payment shall be made for any such arrangements made by contractor (if required).

GENERAL SCOPE OF WORK:

1. Transportation of materials / spares from GSECL stores /yard to work site and removal of ash / debris / scrap materials from work site to ash disposal area / scrap yard / stores engaging contractors own vehicle.
2. Fabrication of site store near work site.
3. Fabrication / repair of spares.
4. Fabrication of fixtures and illumination of work zone.
5. Removal and relaying of insulation wherever applicable.
6. Old Boiler Scrap & removed insulation disposal shall be in the scope of bidder & to be disposed as directed by BHEL / GSECL.
7. Cleaning of work area during and after execution of work.
8. Minimum 10 curie (As per requirement) Radiography sources- 2 sources along with qualified personnel are to be arranged.
9. Bidder has to obtain IBR approval for works & HP welders approvals from the Boiler Directorate / Gujarat & Co-ordination with boiler inspector is the responsibility of the contractor.
10. Successful bidder has to arrange necessary labour licence, insurance etc. for their workmen at the start of work and other necessary statutory requirements are to be fulfilled.
11. **Welding of MTM pads by removing insulation on drum, SH headers and again applying the insulation for BOSMON system is in bidder's scope.**
12. **NDT of pressure parts will be as per Erection welding schedule is attached annexure and FQP. For the joints, not mentioned in EWS, will be 20% RT minimum/welder/shift for joint size 63 mm and below. For joints above 63 mm, RT will be 100 %. NDT for non-pressure parts will be as per FQP.**

NOTE:

- **Lack of supervision / resource mobilization will be viewed seriously.**

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- **Carrying out work by BHEL**
BHEL reserves the right to withdraw/restrict/alter the quantum of works as per clause No. 2.7 of GCC. BHEL may carry work through any other agency/purchase bought out items as per GCC and would levy and overhead charge of 5% on differential cost. In such cases due notice shall be given for a period of 2 (two) weeks.
- Contractor has to make him well conversant with the Customer specification. In case of ambiguity between BHEL and customer specification, customer specification shall prevail.

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Chapter – III: SPECIAL TERMS AND CONDITION

3.1 SPECIAL TERMS AND CONDITION

1. The time schedule is essence of this contract. Subcontractor should complete the all works within (105+15) days of tight schedule. Total Completion period is 120 days.
2. Successful bidder has to follow necessary safety regulations and Safety equipment/ accessories to be used and provided to the workers.
3. Illumination of working area is the responsibility of the contractor.
4. Cleaning, housekeeping and security arrangement for the equipment, T&P and materials/ spares is the responsibility of the contractor.
5. The contractor has to sign "INDEMNITY BOND" for obtaining Form -V (required for Labour license) from the Principal Employer M/s GSECL on non-judicial stamp paper as per format provide by BHEL.
6. Form VI for interstate migrant workers will be provided. Bidder to obtain interstate migration labor license.
7. Police verification of all the persons engaged to be done for gate pass.
8. Necessary workforce, tools and tackles, welding machines, cutting accessories, grinding machines, argon gas with all accessories/cutting accessories, TIG welding kits, TIG welding wires, etc. required for the job shall be arranged by the contractor at their own cost. Consumable, hacksaw blades, grinding/cutting wheels, emery paper, marking cloth, cotton waste, petrol, kerosene, wire brushes, etc. shall be arranged by Successful bidder.
9. All consumables required for the job will be in bidder`s scope.
10. All consumables and welding electrodes as per EWS required for the job will be in bidder`s scope.
11. All technological wastes/wastes generated during execution of overhauling works at various places shall be removed by Contractor to a place identified by the Engineer in charge. The scrap disposal area is approx. 3 k.m from the site. The ducts are to cut before disposal. The insulation to be disposed in ash dyke are at a distance of approx. 3 k.m. The insulation is to be buried in ground. Bidder to arrange JCB for digging and filling of the pit.
12. The work details are brief & for knowledge only and Successful bidder will have to do all the related works as per requirement.
13. Subcontractor should assure that the repair/modification of the equipment covered in the scope worker will be conducted with the best of skills and know how available with Subcontractor and in conformance with the clearances and adjustments set forth in manufacture `s drawing instruments and other information `s furnished to Subcontractor.
14. The various setting, clearances, adjustments and benchmarks will be restored to the extent possible during rectification to the condition as per the erection and commissioning log sheets available with customer. If however we are not able to produce erection / commissioning log sheets, efforts will be made to attend the best possible parameter or the conditions as observed at the time of dismantling of the equipment in consultation with us.
15. Subcontractor must prepare PERT CHART/BAR CHART. Daily monitoring will be done jointly and log sheets of important activities should be noted down and signed jointly. Daily progress reports shall be submitted to BHEL by contractor and involving in progress review meeting along with BHEL/GSECL official.

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16. All the works shall be carried out as per the instructions and to the satisfaction of the Engineer In-charge.
17. The contractor will attend contributory to faulty and poor workmanship during commissioning and trial run of the equipment.
18. Round the clock working under expert supervision shall be ensured by the contractor deploying two equal parallel strength of group in 12 hrs. Shift with equal T&P for all the jobs so as to complete the work in stipulated period or earlier.
19. Adequate manpower along with T&P should be deployed at site. All the T&P required for the work shall be arranged by the contractor and all T&P should reach the site 30 days before the shutdown of the unit. All the measuring instruments shall be duly tested / calibrated and valid certificate to that effect should be submitted to our Site In-charge before start of the work.
20. A deployment plan along with experience and name of the Site In-charge, Engineers, Supervisors, Foreman and main technicians to be submitted on per shift basis.
21. LAP-TOP with latest configuration, DVD/CD writer, its peripherals including printer-scanner and one USB Modem for Internet connectivity to be provided for BHEL site office.
22. One office boys in each shift are to be provided for BHEL site office (which is not mentioned in List of Manpower required but for both work Two office boy arranged by contractor)
23. It is the responsibility of contractor to keep the plant, equipment, machinery and surrounding area clean.
24. The names of working persons like Site in-charge, supervisors, foreman, main fitters to be deployed during the job with full details has to be submitted stating their area of work and experience and specialization of the work to site in-charge before the start of work. BHEL may ask to change/delete the person not found suitable for the work at any point of time during execution of job. For any addition and deletion of the working person prior permission from BHEL shall be taken.
25. Subcontractor has to ensure that all the key persons must continue till completion of job i.e. machine comes on load. Subcontractor manpower should remain at site for a period of 10 days after machine comes on full load.
26. Work distribution sheet for all the workers/supervisors deployed shall be submitted to BHEL one day in advance on daily basis.
27. Subcontractor should mobilize additional resources such as plant, equipment 's, material as may be required by site in-charge to improve the progress of the work if the progress of the work is not satisfactory.
28. Subcontractor should get registered under GST, where the jobs are executed.
29. Radiography and stress relieving are in the scope of the contractor.
30. Scrap and insulation etc. is to be shifted to scrap disposal area as indicated by the Engineer-in-charge.
31. One administrative personnel to control the resources and attendance of the workers to be ensured.
32. Contractor shall arrange certified HP welder for welding job whose welding test will be conducted.
33. Contractor shall arrange skilled EOT crane operator for round clock job as required.

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34. Argon, Oxy- Acetylene gas shall be arranged by the contractor with cutting/welding set / argon welding set and other welding appliances.
35. Enerpac make close height Hydraulic jacks of 50T and 100T capacity - 4 nos. each shall be arranged by the contractor in 100 % working conditions, if required.
36. Scaffolding material, Tarpaulin etc. will be arranged by the subcontractor on his own cost.
37. If the duration of work continues beyond stipulated period due to any reason, no claim for compensation will be entertained.
38. The work details are brief & for Subcontractor knowledge only. Subcontractor will have to do all the related works as per requirement.
39. The contractor will be responsible to pay the damages to the property of Board or individual caused by his worker during the course of contract. If the contractor fails to pay the same it will be recovered from his bill.
40. No compensation claimed for idle labor for any reason will be entertained by BHEL.
41. In normal course, the interpretation of the under signed on any matter or decision given by him on any disputable points will be final and binding on the contractor.
42. Accommodation for the sub-contractor 's manpower will be provided if made available by the customer as per the applicable charges. If not available contractor shall arrange at their own.
43. Contractor is to obtain labor license before the start of the work.
44. Workmen compensation policy to taken before the start of the work
45. Third party liability insurance to taken before the start of the work
46. The copy of registration of GST. If this is not applicable, then contractor shall submit an undertaking.
47. Copy of registration of EPF along with the PF account number of the employees. Challans for EPF for previous month shall be submitted along with subsequent RA bill
48. Partnership deed of firm in case of partnership firm or power of attorney of the representative in case of company to be submitted before the start of the work
49. Bank details, address & RTGS numbers etc. to be submitted
50. Copy of GST registration to be submitted before the start of the work
51. Copy of professional tax registration to be submitted before the start of the work (If required)
52. Copy of PAN card in the name of firm to be submitted before the start of the work
53. Copy of wage register witnessed by GSECL representative for the bill period & bank transfer details to be submitted
54. The contractor has to take clearance from HR group of BMD/GSECL before release of final bill.
55. The contractor has taken NO OBJECTION CERTIFICATE (NOC) from Safety section, stores, health physics section, HR/HS section & security section of GSECL before release of final bill.
56. Calibration certificate with validity for all measuring instruments and T&P should be submitted to GSECL before start of work.
57. Successful bidder has to extend manpower assistance for minor cleaning/scrapping, etc.
58. Transportation of manpower at Site shall be arranged by contractor.

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59. Suitable (sufficient capacity) crane, Hydra, Trailer & lifting arrangement for transportation of material & E&C work shall be arranged by contractor.
60. Repair/replacement of materials/equipment's arising due to damages/pilferages during transit/storage/erection/commissioning shall be arranged by contractor well in time to ensure timely completion of work.
61. Dismantling works include weighing of dismantled materials and transportation of scrap material to scrap yard inside plant premises.
62. Transportation of all fabricated structure, pipes and other materials to erection location, handling, rigging, assembling, bolting, welding and satisfactory installation of new pipe rack and pipes in proper location according to approved layout/ approved erection drawings and/or as directed by Engineer in Charge.
63. Erection works include handling at site stores/storage yard, shifting to erection location, erection, providing temporary supports, alignment, welding and testing as per standard methods and specification/drawings/ FQP. If necessary suitable temporary approach roads or slabs over trenches shall be placed for transportation of fabricated materials to erection location.
64. For steam line /pressure Parts IBR approval is to be taken by Contractors and IBR procedure needs to be followed, including activities for welding etc.
65. The contractor shall be responsible for the necessary periodic testing, inspection during erection & commissioning of the equipment and shall carry out the work meet the specific requirements of relevant statutory regulation as necessary. All Fees, Charges etc payable to statutory authorities for carrying out such test shall be borne by the contractor.
66. Checking center lines, levels etc. including checking line, level position and plumb of all bolts and pockets. Any defect observed shall be brought to the notice of the engineer. The contractor shall fully satisfy himself regarding the correctness of the same before installing the fabricated steel structures.
67. Aligning, plumbing, leveling, bolting, welding and securely fixing the fabricated steel structures and equipment in accordance with the drawings or as directed by the Engineer.
68. Air-in Leakage test by arranging blanking all the leakages and pressurizing using blowers/fan etc. test equipment etc.
69. Removal & relocation of fouling to carry out subject work is in contractor scope.
70. Providing temporary supports for existing outlet ducts, gates etc. when the column are dismantled to facilitate the work. The work involves fabrication of supports, etc. as per the drawing/instruction of engineer in charge.
71. Adequate scaffolding and scaffolding material have to be arranged to complete the job stipulated time of shutdown.
72. The general purpose tools & tackles all testing equipment's, instruments etc. required for testing, erection & commissioning of work will be provided by the contractor at his own cost. Also necessary lifting tackles, tools, Wire rope slings of suitable capacities and other incidental to carry out this work shall have to be arranged by the contractor himself.
73. The contractor shall provide all the consumable during the erection, testing and commissioning of plants / equipment's.
74. The stores shall be handled with care and diligence, any loss to BHEL/GSECL due to contractor lapse shall have to be made good by contractor.

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75. If the contractor or his workmen or employees shall break, deface, injure or destroy any part of the building, roads, fence, enclosures, water pipes, cable, drains, electric or telephone posts or wires, tree or any other property belonging to GSECL/BHEL or their client or to any part of erected equipment store component etc. the contractor shall make good the same at his own expenses or in default. The site engineer may cause the same to be made good workmen, or by other means and deduct the expense (Of which the site engineers decision is final) from any sums that may be then or at any time thereafter become due to the contractor or from his security deposit or any other money due.
76. Paintings as per specification/ instructions of exposed surfaces.

Note:

1. The specific work which is not mentioned in the scope of work but required to be carried out for completion of subject work i.e. any minor modification is in the bidder's scope.
2. Decision of BHEL site in charge regarding interpretation of the scope of work shall be final.
3. In case of any work arising during the course of execution, which was not envisaged during the engineering phase and is not in the scope of work, will be treated as extra work and will be paid on man-hour basis.

3.2. LAISION WITH ALL STATUTORY AUTHORITIES:

- a) Compliance of statutory provisions, whether mentioned in this contract or not shall be binding on the contractor.
- b) If there is any change in labour laws after the contract has been awarded, then the new law shall automatically be binding on the contractor.
- c) No additional financial compensation shall be paid by BHEL to the contractor on account of increased expenditure caused by a) and b) above.

3.3 PAYMENT TO WORKERS:

1. Payment to workers shall be done in the presence of BHEL representative.
2. The contractor shall intimate the day of payment at least three days in advance in writing along with copy of the pay sheet and attendance cards.
3. All workmen shall be covered by PF Rules irrespective of their period of employment.
4. Payment shall be made inside the plant premises and during office hours.

3.4 SUBMISSION OF DOCUMENTS:

The contractor shall submit following documents at appropriate time either before or during the execution of the work and as directed by Site in-Charge.

1. Test certificates of Pulling and Lifting machines and appliances.
2. Details of workers to be deployed with name, address, category.
3. Details of supervisory staff to be deployed.

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4. Authorization for receipt of materials and for signing of Measurement Books etc,
5. Labour license specific to the contract.
6. List of T&P brought into plant premises along with their serial numbers and dates/years of purchase.
7. All the Staff/Workers deputed for the Job should have Insurance Cover and document in this regard should be submitted along with 1st RA Bill.
8. List of consumables brought into plant premises along with their serial numbers and dates/years of purchase, along with test certificates wherever applicable.
9. Insurance policy for the workers to be deployed in this contract.
10. Safety undertaking.
11. Approval from IBR to work in Gujarat
12. Details of approved HP Welders with certificate copies.
13. Copy of ESI certificate to be furnished.
14. Proof of Payment of GST.
 - a. (Sl.No.11 to 12 are required before final bill is processed)

The contractor shall submit following documents in report form within 15 days from commissioning of unit after the overhaul/shut down work is completed:

- Details of work executed.
- Measurements against different schedules in compiled form.
- Material issue details.
- Material consumption details.
- Material returns details.
- Details of settlement of accident benefits if any to workmen
- Copies of pay sheets to workmen.
- Details and proof of remittance of PF to workmen (before final bill).
- No dues clearance from different stores of customer/ GSECL
- Valid labour license

3.5 Statutory Inspection

Please refer General and Special Conditions of Contract. In addition to it the scope includes getting the approvals from the statutory authorities (like IBR, smoke nuisance inspector, Electrical Inspector, anti-pollution authorities, labor officials). This includes arranging for inspection visits of such authorities periodically as per requirement, submitting documents etc. and payment of fees connected with it.

1. Approvals from the statutory authorities shall be in the scope of bidder (like IBR, smoke nuisance inspector, Electrical Inspector, anti-pollution authorities, labor officials) and payment of fees connected with it
2. IBR approvals for work execution, hydro test & open inspection of materials (carried out with boiler inspector.) and work and endorsement of HP welder's certificates and payment of fees connected with it

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3. Hydraulic Test of boiler in presence of boiler inspector & arrangement Hydraulic Test approval form Boiler inspectorate office and payment of fees connected with it
4. This includes arranging for inspection visits of such authorities periodically as per requirement, submitting documents etc. and payment of fees connected with it.
5. Arrangement of Labour license before start of work.
6. Arrangement of Interstate migrant worker license before start of work.
7. Arrangement of police verification of all the manpower employed for gate pass.
8. Arrangement of Insurance for gate pass and before start of work.

3.6 Safety:

Contractor should engage at least One Qualified Engineer in each shift during the contract period. Strict Safety measures have to be followed at Site. Contractor shall also adhere to all the safety provisions of our customer. In case violation of any provision at site fine of Rs.500/- to Rs.2000/- OR as per GSECL rules, at the discretion of our site in-charge, shall be imposed for each of such occasion and shall be recoverable from the contractor's bill.

1. The contractor should ensure the use of 24 volt hand lamps and 24 volt transformer by his workers. The all electrical gadgets shall have plug top & proper earthing.
2. All T&P like pulling and lifting machine, chain pulley blocks, slings, D-shackles should be maintained in proper working condition. Necessary test certificate has to be submitted by contractor for lifting tools & tackles.
3. The contractor shall be fully responsible for the safety of his workers.
4. The Use of ISI mark safety helmet, ISI mark safety shoes, Goggles, hand gloves, ear plugs and nose mask is a must. In addition to this, a full body (safety) harness, face shield must be provided to workers carrying out work at height & cutting/ welding/ grinding respectively. Gas cutting set with flash back arrester etc. should be provided by the contractor and should ensure the use of these safety equipment's, all PPE by his worker while working.
5. Scaffolding should be erected properly and strong enough with hand rails and it should not be used before getting it checked by Engineer-in-charge.
6. The contractor shall be solely responsible for the safety of his workers & employees. The contractor must ensure that the persons working in specialized nature jobs/ skilled jobs/ working with the welding machines, grinders, cutting set & other special T&P shall be having experience & expertise to perform that job. Contractor should engage physically and mentally fit manpower. The electrical connection / repair jobs shall be done only by the electricians.
9. The contractor shall ensure that prior to start of work all his workers shall get the safety training.
10. The contractor shall also take care for the safety of the equipment's & persons working in the vicinity.
11. Customer at its own discretion may decide to recheck / retest some or all of the T&P / machines of the contractor inside the plant premises.
12. The helmets, safety shoes and safety belts issued by the contractor shall be conforming to relevant IS standards.
12. The contractor shall maintain the first aid box at site.

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13. Safety Violation penalty as per extant GSECL norms will be applicable. In case of any penalty levied on BHEL by customer due to any safety violation/lapses by sub-contracting agency, the same will be debited to the sub-contracting agency.
14. All the dial gauges & flash back arrestors of Gas cylinder should be ISI marked. Test certificates of all the gas cylinders should be available.
15. All the scaffolding pipes should be in good condition and all the planks should be metallic with hooks for coupling with tubes or scaffolding coupler pipes.
16. All the lifting and shifting equipment's should have valid test certificate by competent authority of Gujarat state.
17. All the switch boards being used at individual jobs to have ELCB's for the protection.
18. Vendor to arrange 5 numbers of type A and type B safety nets each as per the details below:
 - a. Safety Net Type-A - 5 Nos (Double Layer)
 - Size: 10Mtr X 5Mtr
 - Mesh Size: 25mm
 - Mesh Rope: 2mm rope double cord
 - Border / Tie Cord. Rope: 12mm dia Polypropylene rope (tested as per IS: 5175) 2 Mtr Length shall be provided at all four corners.
 - 1st layer – Hdpe 2mm double cord
 - 2nd layer – Hdpe Overlay Containment HDPE Blue Nets 15-22 mm
 - b. Safety Net Type-B – 5 Nos (Double Layer)
 - Size: 10Mtr X 10Mtr
 - Mesh Size: 25mm
 - Mesh Rope: 2mm rope double cord
 - Border / Tie Cord. Rope: 12mm dia Polypropylene rope (tested as per IS: 5175) 2 Mtr Length shall be provided at all four corners.
 - 1st layer – Hdpe 2mm double cord
 - 2nd layer – Overlay Containment HDPE Monofilaments Nets.

- **THE PRESENT SAFETY NORMS, APPLICABLE SAFETY STANDARD AND FINES FOR SAFETY VIOLATIONS AT GSECL UKAI ARE ATTACHED AS ANNEXURE - IV**

3.7 PROVISION OF PPEs

- Personnel Protective Equipment (PPEs), in adequate numbers, will be made available at site & their regular use by all concerned will be ensured
- The following matrix recommends usage of minimum PPEs against the respective job.

Sl.NO	Type of Work	PPEs
1	Concrete and asphalt mixing	Nose mask ,hand glove ,apron and gum boot
2	Welders/Grinders/Gas cutters	Welding/face screen, apron, hand gloves, nose mask and ear muffs if noise level exceeds 90dB. Helmet fitted with welding shield is preferred for welders
3	Stone /concrete breakers	Ear muffs, safety goggles, hand gloves

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4	Electrical Work	Rubber hand glove, Electrical Resistance shoes
5	Insulation Work	Respiratory mask, Hand glove, safety goggles
6	Work at height	Double lanyard full body harness, fall arrestor (specific cases)
7	Grit/Sand blasting	Blast suit, blast helmet, respirator, leather gloves
8	Painting	Plastic glove, Respirators (particularly for spray painting)
9	Radiography	As per BARC guidelines

- The PPEs shall conform to the relevant standards as below and bear ISI mark.

Relevant is-codes for personal protection

IS:2925-1984	Industrial safety Helmets
IS:4770-1968	Rubber gloves for electrical purpose.
IS:6994-1973(Part-I)	Industrial safety Gloves(Leather & Cotton Gloves)
IS:1989-1986	Leather Safety boots and shoes.
IS:5557-1969	Industrial and safety rubber knee boots.
IS:6519-1971	Code of practice for selections care and repair of Safety foot wear.
IS:11226-1985	Leather Safety footwear having direct molding sole.
IS:5983-1978	Eye protectors.
IS:9167-1979	Eye protectors.
IS:1179-1967	Eye & face protection during welding
IS:3521-1983	Industrial Safety Belt and Harness
IS:8519-1977	Guide for selection of industrial Safety equipment for body protection
IS:9473-2002,14166-1994, 14746-1999	Respiratory Protective Devices

The list is not exhaustive. The safety officer may demand additional PPEs based on specific requirement.

NOTE: All employee of vendor should wear company uniform along with company logo at work place.

Minimum PPEs required:

- Safety Shoes conforming to relevant IS standard.
- Safety Helmet conforming to relevant IS standard.
- Full body harness with double lanyard conforming to relevant IS standard.
- Rope grab fall arrestor with ladder rope conforming to relevant IS standard.
- Retractable fall arrestor conforming to relevant IS standard.
- Safety goggles and reflective jacket conforming to relevant IS standard.
- Rigging Hand gloves (cotton)
- Safety net as per SCC clause 3.6.18.
- Nose mask conforming to relevant IS standard.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – III: SPECIAL TERMS AND CONDITION

3.8 OTHER TERMS AND CONDITIONS

- 1.0 Successful bidder has to extend manpower assistance for minor cleaning/scrapping, etc.
- 2.0 ~~A copy of tender document with each page duly signed and stamped shall be submitted along with your offer as a token of your unconditional acceptance to this tender condition.~~ Also any deviation to the tender conditions shall be submitted in a separate paper duly signed by the bidder, any overwriting / correction by the bidder on the tender will not be recognized and the offer may be rejected on this ground.
- 3.0 General and special conditions of contract' enclosed herewith will be fully applicable, except otherwise stated in this enquiry. In case of any conflict, the conditions specified in this enquiry letter will prevail over that of the 'General and special conditions of contract'.

3.7 Security Deposit

Please refer our "General and special conditions of contracts".

3.8 Other terms and conditions

- 1.0 Successful bidder has to extend manpower assistance for minor cleaning/scrapping, etc.
- 2.0 A copy of tender document with each page duly signed and stamped shall be submitted along with your offer as a token of your unconditional acceptance to this tender condition. Also any deviation to the tender conditions shall be submitted in a separate paper duly signed by the bidder, any overwriting / correction by the bidder on the tender will not be recognized and the offer may be rejected on this ground.
- 3.0 General and special conditions of contract' enclosed herewith will be fully applicable, except otherwise stated in this enquiry. In case of any conflict, the conditions specified in this enquiry letter will prevail over that of the 'General and special conditions of contract'.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: MANPOWER, T&P AND CONSUMABLES TO BE DEPLOYED BY CONTRACTOR

4. LIST OF MANPOWER REQUIRED

Erection & Commissioning of Boiler Pressure parts i.e. Economizer, LTSH, Headers, Back pass, Radiant roof 1&2 pass and Buck Stay, Seal Boxes & Access Doors, Soot Blowers, Skin casing, Removal & application of Insulation of Boilers, replacement of mill components and coal pipe AND Erection and Commissioning of APH and Duct & Dampers at Ukai TPS Unit No.3

Sl.No	Manpower	Category	Area						
			Ducting	Mill	APH	SOF A	Scanner Air	Burner	Back passes
1	Site-in charge	Site-in charge	1						
2	Engineer	Graduate	1	1	1				2
3	Supervisor	Graduate	2	1	2	1	1		3
4	Store Keeper	Non-Graduate	2						
5	Time-Keeper	Non-Graduate	1						
6	HP Welder	IBR							6
7	Welder (Non-IBR)	Skilled	15						5
8	Gas cutter	Skilled	4						2
9	Scaffolder	Semi-Skilled	20						
10	Fitter	Skilled	8	1	2	1	1	1	4
11	Electrician	Semi-Skilled	3						
12	Jr. Fitter	Semi-Skilled	4	1	2	1	1	1	3
13	Ins. Lagger/Carpenter	Semi-Skilled	20						20
14	Grinder Man	Semi-Skilled				2	1		5
15	Rigger	Semi-Skilled	35	8	15	15	3	14	30
16	Helper/Cutter	Un-Skilled	15	7	10	10	4	6	20
17	Office boy	semi - skilled	2						
TOTAL								345	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: MANPOWER, T&P AND CONSUMABLES TO BE DEPLOYED BY CONTRACTOR

This is an indicative list; the sub-contractor shall deploy adequate manpower to carry out the work round the clock and as per requirement of the site during execution of the Job.

4.1 Man power & T&P:

- a) Adequate manpower, T&P along with consumables should be deployed at site and should reach the site **30 days before the shutdown of the unit**. All the lifting tools /measuring instruments shall be duly tested /calibrated and valid certificate to that effect should be submitted to BHEL Site In-charge before start of the work.
- b) A deployment plan along with experience and name of the Site In-charge, Engineers, Supervisors, Foreman and main technicians to be submitted on per shift basis.
- c) Successful bidder has to arrange a LAPTOP at site with latest configuration, USB Modem for Internet connectivity, DVD/CD writer, multimedia and its peripherals including printer.
- d) One office boy to be provided for BHEL site office.
- e) **Successful bidder has to engage 03 Expert Manpower for full duration of work in consultation with BHEL Engineer. Deployment of Experts shall be as follows :**

01 well experienced expert Engineer, who has experience in erection and overhaul of APH & auxiliaries & 01 well experienced expert Engineers who have experience in erection and overhaul of Boiler pressure parts and burner system & 01 well experienced expert Engineers who have experience in erection and overhaul of Mills during entire overhauling period in consultation with BHEL. Payment of Expert Engineers shall be done by contractor.
- f) Contractor Should Engage at Least 04 (1-ducting + 1-pressure parts+ 1-APH + 1-night shift) Qualified Safety Engineer in Each Shift During the Contract Period in Consultation with BHEL Site-In-Charge. Safety Engineer Should Be Qualified from Approved Institute.
- g) Contractor Should Engage at Least 02 Qualified Quality Engineer in Each Shift During the Contract Period in Consultation with BHEL Site-In-Charge.
- h) This is an indicative list; the sub-contractor shall deploy adequate manpower to carry out the work round the clock and as per requirement of the site during execution of the Job.

4.2 LIST OF T& P AND MEASURING INSTRUMENTS TO BE DEPLOYED

A. Erection & Commissioning of Boiler Pressure parts i.e. Economizer, LTSH, Headers, Back pass, Radiant roof 1&2 pass and Buck Stay, Seal Boxes & Access Doors, Soot Blowers, Skin casing, Removal & application of Insulation of Boilers, replacement of mill components and coal pipe at Ukai TPS Unit No.3

Sl.No.	Description	Quantity
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TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: MANPOWER, T&P AND CONSUMABLES TO BE DEPLOYED BY CONTRACTOR

01.	Welding Generator / Rectifier	15 nos.
02.	Portable Grinding Machines of assorted sizes / types	10 nos.
03.	Welding cable	800 Mtr.
04.	Gas cutting set	12 sets
05.	Chain pulley blocks 3MT/5MT/10MT cap.	20 nos./10 nos./10 nos.
06.	Lifting tackles including slings of assorted sizes	As per requirement
07.	Pulling Machines / Hook chooks	06 nos.
08.	24V lamps with cable and plug tops	10 nos.
09.	Crane 14 T	01 no.
10.	Tractor / Trailer 10 T cap.	01 no.
11.	Electric Winch 5T/10T cap.	03 no. each
12.	Cup lock scaffolding materials	Complete set
13.	High Pressure water jet pump	01 No
14.	Master Level of 0.02 mm LC	02 nos.
15.	Vernier calipers 0-150 m 0-300 M 0-600 M	02 nos. 02 nos. 01 no.
16.	Inside Micrometer up to 600 mm	01 no.
17.	Outside Micrometer up to 600 mm range	01 no.
18.	Measuring Tape up to 15 M length	04 nos.
19.	Dial Gauges	03 nos.
20.	Grinding Machine AG-7 & GQ 4	8 nos. / 4 nos.
21.	Diesel grinders	2 nos.
22.	TIG welding sets	10 nos

B. Erection & Commissioning of Regenerative Air Preheaters and duct/dampers at Ukai TPS Unit No.3

Sl.No.	Description	Quantity
01.	Welding Generator / Rectifier	15 nos.
02.	Portable Grinding Machines of assorted sizes / types	10 nos.
03.	Welding cable	500 Mtr.
04.	Gas cutting set	12 sets

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Chapter – IV: MANPOWER, T&P AND CONSUMABLES TO BE DEPLOYED BY CONTRACTOR

05.	Chain pulley blocks 3MT/5MT/10MT cap.	20 nos./10 nos./10 nos.
06.	Lifting tackles including slings of assorted sizes	As per requirement
07.	Pulling Machines / Hook chooks	06 nos.
08.	24V lamps with cable and plug tops	10 nos.
09.	Crane 12 T	01 no.
10.	Tractor / Tractor 10 T cap.	01 no.
11.	Electric Winch 5T/10T cap.	04 nos./2 NOS.
12.	Torque Wrench with Torque Multiplier	01 no. each (35 kg.M/65 kg.M)
13.	Slogging spanners 52 mm & 54 mm	4 nos. each.
14.	Master Level of 0.02 mm LC	02 nos.
15.	Vernier calipers 0-150 mm 0-300 M 0-600 M	02 nos. 02 nos. 01 no.
16.	Inside Micro-meter up to 600 mm	01 no.
17.	Outside Micro-meter up to 600 mm range	01 no.
18.	Measuring Tape up to 15 M length	04 nos.
19.	Dial Gauges	03 nos.
20.	Grinding Machine AG-7 & GQ 4	8 nos. / 4 nos.
21.	Diesel grinders	2 nos.
22.	Tap set M 39 x 3	1 set.
23.	Filler gauge (loose) 200 mm long	4 nos.

NOTE:

1. The above list is only indicative and not exhaustive. Arrangement for any other T and P required for completion of the job shall be the responsibility of the contractor and shall be arranged by him.
2. All the tools and tackles/measuring instruments shall be duly tested/calibrated and valid certificate to that effect should be submitted to our site in-charge before the start of work.
3. Arrangement of 150-200 Ton capacity tire mounted Crane with adequate boom length or Jib arrangement for APH dismantling and erection purpose and other erection purposes. However, if higher capacity crane shall be required to complete the work, same shall be arranged by bidder at no extra cost. Bidder may visit the site for assessment of capacity & positioning of crane.
4. Sky climber/cup lock, if required, for the removal and installation of burner assembly and alignment of the burners, will be in vendor's scope
5. **Hydro test pump of capacity 250 kg/cm² for boiler hydro test.**

4.3 CONSUMABLES TO BE ARRANGED BY CONTRACTOR

(The list is indicative only and not exhaustive)

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: MANPOWER, T&P AND CONSUMABLES TO BE DEPLOYED BY CONTRACTOR

List of anticipated consumables are as indicated as follows:-

LIST OF CONSUMABLES OF REQUIRED QUANTITY

1. Kerosene/Diesel
2. Rustolene
3. CTC
4. Waste cloth/Cotton
5. Marking cloth
6. Cutoff wheels / Grinding wheels
7. Mounted wheels/ rotary cutters
8. Insulation tape / Johnson tape
9. Sander discs and wheels
10. Polyethylene sheets
11. Electric fuse wire and cables
12. Cutting Electrodes
13. Welding Electrodes (E7018, 8018, 9018 & filler wire as per requirement)
14. Argon, DA and Oxygen gases

NOTE:

The above list is only indicative & not exhaustive. Arrangement for any other consumables required for completion of the job shall be the responsibility of the contractor & shall be arranged by him.

4.4 Facilities to be provided by GSECL/BHEL

A. Free of cost: -

1. Free supply of service water will be made available for construction & drinking purposes as a single point at work site to be decided by GSECL.
2. Free supply of service air shall be provided at one point at works site to be decided by GSECL.
3. The contractor shall advise GSECL within 3 weeks from the zero date about his exact requirement of space for his office, storage area, pre assembly and fabrication areas etc. above requirements shall be reviewed by GSECL's engineer and space as decided by GSECL will be allotted to the contractors for construction of his temporary structures, facilities like offices, storage shades pre assembly & fabrication areas etc for Contractor's as well as his sub-contractors use.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: MANPOWER, T&P AND CONSUMABLES TO BE DEPLOYED BY CONTRACTOR

B. On chargeable Basis: -

1. The contractor shall submit GSECL within 3 weeks from the zero date about his electrical power requirement for the works to allow the planning of the same by GSECL. The LT electric power will be made available at single point. Further extension will have to be carried out by the contractor as per requirement at their cost. The necessary charges will be recovered as per the tariff rate of Dakshin Gujarat VIJ Company LTD. (DGVCL) from time to time.
2. Area lighting shall be provided by GSECL as per its existing lighting scheme. However, any additional lighting required for the safe execution of the work shall be arranged by the contractor. Any damage caused due to inadequate lighting shall be made good by the contractor at his own cost.
3. GSECL will provide un-furnished bachelor qtrs./Hostel to contractor, if available. the contractor shall have to pay the rent of quarter/hostel as GSECL rules. Contractor to carry out minor repairs in the qtr, if required. Land for staff and labor colony shall not be provided by GSECL and Contractor has to make his own arrangement for the same at his own cost.
4. The medical facilities to the contractor personnel shall be provided on chargeable basis at the GSECL hospital.

4.5 Contractor responsibility: -

- a. Contractor has to be deployed two equal parallel strength of group in 12 hrs. Shift with equal T&P for all the jobs so as to complete the work in stipulated period or earlier.
- b. Steam dumping activity if required is in contractor scope.
- c. Vendor to take job to facility outside the site for minor machining/modification.
- d. Contractor to arrange MCCB/ELCB for the point from where the supply distribution has to be taken.
- e. Providing assistance for carrying out testing and commissioning of Air Pre-heaters & Boiler.
- f. Bidder to make any temporary arrangement for the flushing of lube oil system of equipment and fuel oil system.
- g. Bidder to cut the Main steam line at a location decided as per the procedure to facilitate the steam blowing and again the normalization of the line.
- h. Bidder to provide assistance for Alkali boil-out of the boiler as per direction of BHEL personnel.
- i. Bidder to arrange required quantity of Tri-sodium phosphate(TSP) and di-sodium phosphate(DSP) for the alkali boil-out of boiler. The material to be procured is in consultation with BHEL engineer. Test certificate of the same to be submitted by the vendor. The quantity of TSP 600 kg & DSP-300 kg.
- j. Bidder to procure around 10 ltrs of HCL and 50 ltrs of NaOH for the chemical cleaning of APH lube oil lines.
- k. Providing assistance for all other testing conducted by BHEL (PET, PG Test, Chemical Cleaning etc.)

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – IV: MANPOWER, T&P AND CONSUMABLES TO BE DEPLOYED BY CONTRACTOR

- l. 100% radiography is done by contractor if repair required after radiography and hydraulic test shall be conducted presence of boiler inspector and during hydro test if found leakage in pressure part shall be repaired by contractor free of cost (contractor own cost) with 100% radiography.
- m. Transportation of material from BHEL/GSECL store to site and back after completion of work contractor scope and Hydra crane, tractor, truck, trolley shall be arranged by contractor
- n. Water Washing/air cleaning of Second Pass.
- o. All consumables required for modification work is in the scope of bidder.
- p. Safety penalties and inspection of all T & Ps to be as per guidelines of GSECL Ukai. All daily formats and inspection related to safety are to be complied with as per customer safety policy.

4.6 Co-operation with other Contractors: -

Contractor shall agree to co-operate with the other contractor (TG , Civil C&I Agencies) for associated Equipment as during their work it may happen that other work contractor is also working nearby or parallel to his work and all the work to be completed in stipulated time only.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-V: QUALITY REQUIREMENT

QUALITY REQUIREMENT

- Various inspection/ quality control / quality assurance procedure/ methods at various stages will be as per BHEL/ customer quality control procedure/ codes/ IBR and other statutory provisions and as per BHEL Engineer's instructions.
- Preparation of quality assurance log sheets and protocols with customer's engineers, welding logs, other quality control and quality assurance documentation as per BHEL Engineer's instructions, is within the scope of work/ specification.
- A daily log book should be maintained by Area In-charge of contractor on the job incorporating erection / alignment / welding clearance /radiography / progress of work etc. and the same shall be submitted to BHEL. Also, daily reports shall be submitted to BHEL.
- All the important measurements like pre-assembly checking of alignment leveling/ centering work etc. shall be recorded in the daily log book with sketches based on BHEL drawings indicating readings/ measurements actually taken and signed by BHEL/ Customer/ Contractor representatives.
- The inspection/measuring and testing equipments should be of brand, quality and accuracy, as specified by BHEL engineer and should have valid calibration certificates traceable to national/international standards.
- Total quality is the watchword of the work and contractor shall strive to achieve the quality standards, procedures laid down by BHEL. He will follow the instructions as per BHEL drawings and quality standards.
- The welder's performance will be reviewed from time to time as per the BHEL/ IBR standards and any welder not performing to the standards set by BHEL/ IBR standards will be removed from working, Contractor shall arrange for the alternate welders immediately.
- All the welders including HP welders shall carry identity cards. Only welders duly authorized by BHEL/ Boiler inspector/ customer / consultant shall be engaged on the work.
- **STAGE INSPECTION BY BHEL / CUSTOMERS ENGINEERS**
Apart from day-to-day inspection/ stage inspection of equipments by BHEL engineers, the equipments may be checked at various stages by customer's engineers and quality assurance teams. Contractor shall arrange all labour, tools/tackles etc. for such inspections free of cost.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VI: Time Schedule

6.1 TIME SCHEDULE & MOBILIZATION

6.1.1 INITIAL MOBILIZATION

After receipt of fax LOI, Contractor shall discuss with Project Manager / Construction Manager/BHEL Site In charge regarding initial mobilization. Full-fledged team consisting of riggers, welders, fitters, helpers along with T& P has to be mobilized as per directives given by BHEL after issue of LOI so that the work can be started from day one with full force. Successful bidder has to attend Kick-off meeting at Ukai site within 07 days after receipt of LOI.

6.1.2 MOBILIZATION FOR ERECTION, TESTING, ASSISTANCE FOR COMMISSIONING, OVERHAULING ETC.

The activities for Overhauling/Modification shall be started as per directions of Site In charge of BHEL. Contractor shall mobilize further resources (in addition to those required for activities under clause no. 6.1.1) as per requirement to commence the subject work and progressively augment the resources to match schedule of the project.

Entire E&C works are to be completed within 105 days from the date of start of work. Any other testing of Boiler/APH and completion of all other residual work shall be completed in these 15 days i.e. Total Work completion time shall be **120 days (from the date of Shut down till Unit full load)**.

It is to be noted that time is essence of the contract and the job should be completed to the fullest satisfaction of BHEL within the specified time period. In the event of delay in completion of the job, action will be taken as per relevant clauses of contract.

The tentative shutdown of Boiler is scheduled from **01 Nov 2025** and work on all fronts to be started immediately thereafter. Successful bidder has to mobilize 45 days prior to shutdown of the unit for the pre-fabrication of ducts , as per the directives given by BHEL.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VII: Payment Schedule

7.1 Payment Terms: -

Monthly RA billing shall be done as per the break-up given below:-

Sch. No.	Description of Work	Unit	Qty	Percentage of Overall (LS) Quoted Price
	R&M OF Boiler U#3, 200 MW Ukai			
A	Dismantling of Boiler Parts including Removal of Insulation - 2934 MT (22.92232%)			
1	Dismantling of Boiler Parts (80%)	MT	2934	18.33786%
2	Milestone Activities to complete Boiler R&M Work (20%)	MT	2934	4.58446%
B	Erection & Commissioning of Boiler Pressure parts i.e. Economizer, LTSH, Steam Cooled Wall, Headers, Radiant roof 1&2 pass and Buck Stay, Seal Boxes & Access Doors, Soot Blowers - 768 MT (20.24309%)			
1	Erection of component (25%)	MT	768	5.06077%
2	Alignment, welding of the component (35%)	MT	768	7.08508%
3	NDT of the component (20%)	MT	768	4.04862%
4	Milestone Activities to complete Boiler R&M Work (20%)	MT	768	4.04862%
C	Erection & Commissioning of Structure - 232 MT (5.417338%)			
1	Erection of component (25%)	MT	232	1.51685%
2	Alignment, welding of the component (35%)	MT	232	1.73355%
3	NDT of the component (20%)	MT	232	1.08347%
4	Milestone Activities to complete Boiler R&M Work (20%)	MT	232	1.08347%
D	Erection & Commissioning of Regenerative Air Preheaters (Rotary) - 450 MT (7.032791%)			
1	Module loading Of APH A (20%)	MT	450	1.40656%
2	Module loading of APH B (20%)	MT	450	1.40656%
3	APH A alignment & Trial Run (20%)	MT	450	1.40656%
4	APH B alignment & Trial Run (20%)	MT	450	1.40656%
5	Milestone Activities to complete Boiler R&M Work (20%)	MT	450	1.40656%
E	Erection & Commissioning of Non Pressure Parts - 1367 MT (33.58509%)			
E-1	Replacement of Milling system (NPP) (6.000000%)			
1	Classifier replacement work (5.5% for each mill X 6 mills)- proportionally (33%)	MT	105	1.98000%

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VII: Payment Schedule

2	Liner replacement and repairing of mills(5.5% for each mill X 6 mills) - proportionally (33%)	MT	105	1.98000%
3	Mills trial run (14%)	MT	105	0.84000%
4	Milestone Activities to complete Boiler R&M Work (20%)	MT	105	1.20000%
E-2	Replacement of Duct system, dampers & gates (NPP) (18.000000%)			
1	Erection of duct (25%)	MT	1100	4.50000%
2	Alignment, welding & NDT (30%)	MT	1100	5.40000%
3	Duct Support (10%)	MT	1100	1.80000%
4	ATT completion (15%)	MT	1100	2.70000%
5	Milestone Activities to complete Boiler R&M Work (20%)	MT	1100	3.60000%
E-3	Replacement of roof & penthouse enclosure refractory and skin casing, coal pipes, burner & fuel oil works (NPP) (9.58509%)			
1	Replacement of coal nozzle, coal pipe & bends (20%)	MT	162	1.91702%
2	Replacement of scanner air system (20%)	MT	162	1.91702%
3	Replacement of valves & corner skids in fuel firing system and SADC/burner tilt mechanism (20%)	MT	162	1.91702%
4	Replacement of SH & RH spray valves (20%)	MT	162	1.91702%
5	Milestone Activities to complete Boiler R&M Work (20%)	MT	162	1.91702%
F	Erection & Commissioning of Hangers & Supports - 5 MT (0.14921%)			
1	Erection & Commissioning of Hangers & Supports (80%)	MT	5	0.11937%
2	Milestone Activities to complete Boiler R&M Work (20%)	MT	5	0.02983%
G	Application of Insulation - 480 MT (10.65017%)			
1	Application of Insulation including Cladding & Refractory (80%)	MT	480	8.52014%
2	Milestone Activities to complete Boiler R&M Work (20%)	MT	480	2.13003%
		Total %		100.00000%

NOTE : Further Break-Up of Milestone Activities to complete Boiler R&M Work are described below :-

Sch. No.	Description of Work	Unit	Qty	Percentage
	Milestone Activities to complete Boiler R&M Work (20.00000%)			
1	4% on Mobilization of site with T& P	LS	1	4.000000%
2	5% on Boiler light-up & commissioning.	LS	1	5.000000%

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VII: Payment Schedule

3	5% On completion of all the other activities like performance test, punch point & commissioning, removal of scrap etc. from site and on submission of documents like No Dues certificate from Customer, EPF challan, Insurance, Labour License and Labour Payment sheets etc.	LS	1	5.000000%
4	4% for deployment of Safety Engineer, PPE & Safety Equipment's, Experts & Quality Engineers			
(i)	1 % for deployment of 4 numbers of safety engineer/supervisors	Nos	4	1.000000%
(ii)	1 % for deployment of PPEs, safety equipment's (safety nets, rope grab fall arrestor, life lines etc.)	LS	1	1.000000%
(iii)	1 % for deployment of 3 experts for boiler & rotary equipment	Nos	3	1.000000%
(iv)	1 % for deployment of 2 numbers of quality engineers	Nos	2	1.000000%
5	1.0 % for completion of insulation disposal at designated place	LS	1	1.000000%
6	1.0 % for completion of scrap disposal at designated place	LS	1	1.000000%

Note:

1. LD/Penalty of 1% per day of the total contract value will be levied for improper mobilization of man power and 1% per day for T & P and consumables separately subject to maximum 10% of the contract value shall be deducted from contractor 's bill
2. While submitting the invoices, Vendor should mention their Bank Account No. on each of their invoices for the purpose of making e-payment. Invoice should be sent in triplicate form.
3. If the sub-contractor fails to successfully Install & commission the Boiler within the time period of **105 days** from the date of commencement of shutdown due to reasons solely attributable to sub-contractor, then a liquidated damage and not as penalty shall be levied on vendor, at the rate Half per-cent (0.5%) of Total Contract price for each day of delay, subjected to maximum of Ten per-cent (10%) of Total contract price.
4. Payment shall be made on actual executed quantity of each BOQ certified by BHEL Engineer.
5. Actual quantity shall be calculated as per shipping list.
6. Payment against Quantity Variation shall be calculated as per GCC.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII TAXES, DUTIES & LEVIES

8.0 TAXES, DUTIES, LEVIES (Rev 14 dated 09/10/2020)

1. All taxes excluding GST, GST Cess & BOCW Cess but including, Royalties, fees, license, deposits, commission, any State or Central Levy and other charges whatsoever, if any, shall be borne by you and shall not be payable extra.
2. Any increase of the taxes excluding GST, GST Cess & BOCW Cess, at any stage during execution including extension of the contract shall have to be borne by the contractor. Quoted/ accepted rates/ price shall be inclusive of all such requirements. Please note that since GST on output will be paid by BHEL separately as enumerated below, your quoted rates/ price should be after considering the Input Credit under GST law at your end.
3. **GST :**
The successful bidder shall furnish proof of GST registration. GST along with Cess (as applicable) legally leviable & payable by the successful bidder as per GST Law, shall be paid by BHEL. Hence Bidder shall not include GST along with Cess (as applicable) in their quoted price.
4. GST charged in the Tax Invoice/Debit note by the contractor shall be released separately to the contractor only after contractor files the outward supply details in GSTR-1 on GSTN portal and input tax credit of such invoice is matched with corresponding details of outward supply of the contractor and has paid the GST at the time of filing the monthly return
5. E-invoicing under GST has been implemented with effect from 1st October 2020 for all the taxable persons having turnover more than the threshold limit in any preceding financial year from 2017-18 onwards. Therefore, for all the taxable persons falling under the purview of E-invoice, it is mandatory to mention a valid unique Invoice Reference No. (IRN) and QR code as generated from E-Invoicing portal of the Government for the purpose of issuing a valid Tax Invoice. Only an E-invoice issued in the manner prescribed under rule 48(4) of CGST Rules shall be treated as valid invoice for reimbursement of GST amount.
If the successful Bidder is not falling under the purview of E-Invoicing then he has to submit a declaration in that respect along with relevant financial statements.
6. Bidder shall note that the GST Tax Invoice complying with GST Invoice Rules (Section 31 of GST Act & Rules referred there under) wherein the 'Bill To' details will as below:
BHEL GSTN – As per **Annexure -1**
NAME – Bharat Heavy Electricals Limited
ADDRESS – Site address
7. Bidder to immediately intimate on the day of removal of Goods (in case of any supply of goods) to BHEL along with all relevant details and a scanned copy of Tax Invoice to below email ids to enable BHEL to meet its GST related compliances :-
Email id — to be intimated later on.
In case of delay in submission of the abovementioned documents on the date of dispatch, BHEL may incur penalty /interest for not adhering to Invoicing Rules under GST Law. The same will be liable to be recovered from the successful bidder, if such delay is not attributable to BHEL.
8. In case of raising any Supplementary Tax Invoice (Debit / Credit Note) Bidder shall issue the same containing all the details as referred to in Section 34 read with Rule 53.
9. Bidder shall note that in case GST credit is delayed/ denied to BHEL due to delayed / non receipt of goods and /or tax invoice or expiry of the timeline prescribed in GST Law for availing such ITC, or any other reasons not attributable to BHEL, GST amount shall be recoverable from the vendor along with interest levied / leviable on BHEL, as the case may be.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII TAXES, DUTIES & LEVIES

10. Bidder shall upload the Invoices raised on BHEL in GSTR-1 within the prescribed time as given in the GST Act. Bidder shall note that in case of delay in declaring such invoice in your return and GST credit availed by BHEL is denied or reversed subsequently as per GST Law, GST amount paid by BHEL towards such ITC reversal as per GST law shall be recoverable from the bidder along with interest levied / leviable on BHEL.
11. Way Bill: Successful Bidder to arrange for way bill / e-waybill for any transfer of goods for the execution of the contract.

The Bidder has to make their own arrangement at their cost for completing the formalities, if required, with Issuing Authorities, for bringing materials, plants & machinery at site for execution of the works under this contract, Road Permit/ Way Bill, if required, shall be arranged by the contractor and BHEL will not supply any Road Permit/ Way Bill for this purpose.

12. **New taxes and duties:**-Any New taxes & duties, if imposed subsequent to due date of offer submission as per NIT & TCN, by statutory authority during contract period including extension, if the same is not attributable to you, shall be reimbursed by BHEL on production of relevant supporting document to the satisfaction of BHEL. However, you shall obtain prior approval from BHEL before depositing new taxes and duties.

Benefits and/or abolition of all existing taxes must be passed on to BHEL against new Taxes, if any, proposed to be introduced at a later date.

In case any new tax/levy/duty etc. becomes applicable after the date of bidder's offer but before opening of the price bid, the bidder must convey its impact on his price duly substantiated by documentary evidence in support of the same before opening of the price bids. Claim for any such impact after opening the price bid will not be considered by BHEL for reimbursement of tax or reassessment of offer.

13. For transportation work, bidder shall declare in his quotation whether he is registered under GST, if yes, whether he intends to claim GST on forward charge basis. In absence of this declaration, BHEL will proceed further with the assumption that bidder intends not to claim GST on forward charge basis. However, in case of GST registered transporter, the amount to the extent of goods and service tax will be retained till BHEL avails the credit of GST. Further, transporter shall issue tax invoice which inter alia includes gross weight of the consignment, name of the consigner and the consignee, registration number of vehicle in which the goods are transported, details of goods transported, details of place of origin and destination, GSTIN of the person liable for paying tax whether as consigner, consignee or goods transport agency, and also containing other information as mentioned under rule 46.
14. TDS under Income Tax shall be deducted at prevailing rates on gross invoice value from the running bills unless exemption certificate from the appropriate authority/ authorities is furnished.
15. TDS under GST shall be deducted at prevailing rates on applicable value from the running bills.
16. TCS under Income Tax 1961 has been implemented with effect from 1st October 2020 for every seller having turnover more than threshold limit during financial year immediately preceding financial year in which the sale of goods is carried out, who receives any amount as consideration for sale of any goods of the value or aggregate of such value exceeding threshold limit other than export of goods or who is already covered under other provision of section 206C, collect from the buyer, TCS as per applicable rates of the sale consideration exceeding threshold limit subject to following conditions

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII TAXES, DUTIES & LEVIES

- i. Buyer shall be as per clause (a) of section 206C- (1H)
- ii. Seller shall be as per clause (b) of section 206C- (1H)
- iii. No TCS is to be collected, if the seller is liable to collect TCS under other provision of section 206C or the buyer is liable to deduct TDS under any provision of the Act and has deducted such amount.

If Successful Bidder is falling under the purview of TCS then he has to submit a declaration in that respect along with relevant financial statements before the start of work or if bidder is falling under preview of TCS during the work in progress then bidder is compulsorily required to submit relevant financial statement in the beginning of the respective FY.

For TCS claim, vendor has to submit relevant documents required as per Income Tax Act.

17. Refer Annexure – 2 for BOCW Act & Cess Act.

ANNEXURE-1

State wise GSTIN no.s of BHEL

Sl. No	Projects under state	GSTIN
1	Andhra Pradesh	37AAACB4146P7Z8
2	Bihar	10AAACB4146P1ZU
3	Chhattisgarh	22AAACB4146P1ZP
4	Gujarat	24AAACB4146P1ZL
5	Jharkhand	20AAACB4146P5ZP
6	Madhya Pradesh	23AAACB4146P1ZN
7	Maharashtra	27AAACB4146P1ZF
8	Orissa	21AAACB4146P1ZR
9	Telangana	36AAACB4146P1ZG

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-IX FACILITIES IN SCOPE OF CONTRACTOR/BHEL

Facilities in the scope of Contractor/BHEL

Sl. No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
9.1	ESTABLISHMENT			
9.1.1	FOR CONSTRUCTION PURPOSE:			
a	Open space for office (as per availability)	Yes		BHEL may provide free of charge limited open space for office and store as and where made available by its customer.
b	Open space for storage (as per availability)	Yes		
c	Construction of bidder's office, canteen and storage building including supply of materials and other services		Yes	
d	Bidder's all office equipments, office / store / canteen consumables		Yes	
e	Canteen facilities for the bidder's staff, supervisors and engineers etc		Yes	
f	Firefighting equipments like buckets, extinguishers etc		Yes	
g	Fencing of storage area, office, canteen etc of the bidder		Yes	
9.1.2	FOR LIVING PURPOSES OF THE BIDDER			
	Open space for labour colony (as per availability)		Yes	Customer may provide qtrs. For labor & staff on chargeable basis, of available. Otherwise Contractor has to make his own arrangement. Any minor repair in the qtrs. if provided, to be done by contractor.
b	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	
9.2.0	ELECTRICITY			

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-IX FACILITIES IN SCOPE OF CONTRACTOR/BHEL

Sl. No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
9.2.1	Electricity for construction 415 V (To be specified whether chargeable or free)			
a	Single point source of 415 V	Yes		Chargeable. Bidder to make its own arrangement of distribution of electricity at its own cost.
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
9.2.2	Electricity for the office, stores, canteen etc of the bidder (to be specified whether chargeable or free)			
a	Single point source		Yes	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
9.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors etc		Yes	Customer may provide qtrs. For labor & staff on chargeable basis, of available. Otherwise Contractor has to make his own arrangement. Any minor repair in the qtrs. if provided, to be done by contractor.
a	Single point source		Yes	
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-IX FACILITIES IN SCOPE OF CONTRACTOR/BHEL

Sl. No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
9.3.0	WATER SUPPLY			
9.3.1	For construction purposes:			
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
9.3.2	<u>Water supply for bidder's office, stores, canteen etc</u>			
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
9.3.3	<u>Water supply for Living Purpose</u>			Contractor has to make his own arrangement.
a	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
9.4.0	LIGHTING			
a	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
b	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area 3 At the construction site /area		Yes	
c	Providing the necessary consumables like bulbs, switches, etc during the course of project work		Yes	
d	Lighting for the living purposes of the bidder at the colony / quarters		Yes	
9.5.0	COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER			
a	Téléphone, fax, internet, intranet, e-mail etc.		Yes	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-IX FACILITIES IN SCOPE OF CONTRACTOR/BHEL

Sl. No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	PART I			
9.6.0	COMPRESSED AIR wherever required for the work		Yes	
9.7.0	Demobilization of all the above facilities		YES	
9.8.0	TRANSPORTATION			
a	For site personnel of the bidder		Yes	
b	For bidder's equipments and consumables (T&P, Consumables etc)		Yes	
Sl. No.	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	PART II			
	3.9.0 ERECTION FACILITIES			
9.9.1	Engineering works for construction:			NOT APPLICABLE
a	Providing the erection/constructions drawings for all the equipment covered under this scope	Yes		
b	Drawings for construction methods	Yes	Yes	In consultation with BHEL
c	As-built drawings – where ever deviations observed and executed and also based on the decisions taken at site- example – routing of small bore pipes		Yes	Changes are to be marked in drawing & handover to BHEL on completion of work.
d	Shipping lists etc for reference and planning the activities			NOT APPLICABLE
e	Preparation of site erection schedules and other input requirements		Yes	In consultation with BHEL
f	Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL
g	Weekly erection schedules based on SI No. e		Yes	In consultation with BHEL
h	Daily erection / work plan based on SI No. g		Yes	In consultation with BHEL
i	Periodic visit of the senior official of the bidder to site to review the progress so that works is completed as per schedule. It is suggested this review by the senior official of the bidder should be done once in every two months.		Yes	

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-IX FACILITIES IN SCOPE OF CONTRACTOR/BHEL

Sl. No.	Description PART I	Scope / to be taken care by		Remarks
		BHEL	Bidder	
j	Preparation of preassembly bay			NOT APPLICABLE
k	Laying of racks for gantry crane if provided by BHEL or brought by the contractor/bidder himself			NOT APPLICABLE
L	Arranging the materials required for preassembly			NOT APPLICABLE

9.9.2 BHEL may provide free of charge limited open space, for office & storage shed, as and where made available by Customer. It is the responsibility of the contractor to construct sheds, provide all utilities and dismantle and clear the site after completion of work or as and when required, as a part of his scope of work.

Note: Due to space constraint at site, contractor may have to arrange for disposal of scrap and insulation wast. outside the plant premises. Any cost implication of the same shall be to the account of contractor and no extra payment shall be made for any such arrangements made by contractor (if required).

TECHNICAL CONDITIONS OF CONTRACT (TCC)

ANNEXURE I – BROAD BOM

Annexure I

PG	Description	No.off/Boiler	Weight per Boiler in Kg
	Insulation (Air ducts and Flue gas duct)		
32,33	Air and flue gas ducts mineral wool and Fixing components		217500
	Ducts and Expansion joints		
48	Ducting - APH outlet to BOF, Primary air duct (Cold, hot and tempering), Secondary air duct (Cold & hot) along with expansion joints and supports		463000
	Scanner air system		
43	Complete Scanner Air Fan With AC & DC Motors & Accessories - Butterfly valves & expansion joints, piping & strcutural itemsAssy comp Scanner & Gun Air system (Duplex Air filter)		11000
	HEA Ignitors		
41	HEA IGNITOR ASSY.	12	
	FUEL OIL SYSTEM		
41	Complete Air cooled oil gun assembly with pneumatic fittings	12	2500
45	Burner Tilt power cylinder	4	
45	SADC power cylinder	12	
	Modified Burner assy and coal piping		
45	Coal Nozzle and nozzle tips, oil nozzle tips and air nozzle tips	24	16500
47	Coal piping		25000
	SPRAY SYSTEM PIPING AND FITTINGS		
24	SH and RH spray control station with complete piping and valves		25100
	Back pass modification - efficiency improvement		
	Buckstays, Seal boxes & Access doors		
8	II pass Buckstay assy (at 1 elevation)		8100
9	Seal Boxes For Furnace Opening		1400
28	Access doors		1500
	Pressure Parts II Pass		
10	LTSH Inlet and outlet headers		13600
11	LTSH coil assy		205000
11	Shielding plate for LTSH coils		36500

TECHNICAL CONDITIONS OF CONTRACT (TCC)

ANNEXURE I – BROAD BOM

12	LTSH Terminal Tubes		26500
12	SH Dersh Links		3300
10	Backpass Front, side wall and roof junction Headers		14500
11	Back pass Steam cooled wall panels		59950
12	Suspension of Backpass headers		8100

	Economiser		
19	Economiser coil assy & supports		330000
19	Eco Inlet, inter and outlet headers		17400
19	Eco hanger tubes		16500
19	Feed Pipe and support		2500
19	Eco links to drum		1650
30	Anti vibration baffles for eco		8000
19	Eco supports aboveand below roof		21500
	Soot Blower Piping		
21	Soot blower piping & supports		1500
	II Pass Insulation		
18	Furnace Roof Skin casing, II pass skin casing		23600
33	Main Boiler castable refractory and insulation		95000
	Insulation (Air ducts and Flue gas duct)		
32	Insulation and Fixing components for air and flue ducts		130500
	Supporting Structures (For Eco redesign, LRSB & others)		
36	Platforms (Channels, beams etc.), floor grills, handrails, posts etc.,		139000
	Ducts and Expansion joints		
48	Eco duct to APH, other ducts and supports		161000
	Combustion modification -DeNOx		
6	WW panel (Rifled Tube) for BOFA		5500
32	BOFA duct insulation and fixing components		25450
33	Main Blr castable Refractory		11660
36	Structural flooring and corner platforms and Furnace Buckstay modification		38000
36	Support beams for ducts		20000
45	Windbox (SADC) damper assembly and Plates modification		7000
45	Pneumatic actuators with conventional positioners (for BOFA)	12	
45	BOFA compartment assembly at 4 corners		11900
45	Tilt power cylinder with conventional positioners (for BOFA)	4	
48	BOFA ducting, expansion joints and supports		32000
			2238710

TECHNICAL CONDITIONS OF CONTRACT (TCC)

ANNEXURE I – BROAD BOM

Erection weight per boiler

A.	Grinding elements and vane wheel -36 Tons	36
B.	Mechanical face seal – 6 Tons	6
C.	Regulating type RC valve – 1.5 Tons	1.5

Erection Weight	43.5
Dismantling weight	43.5

	Erection Weight	Dismantling Weight
APH - Ukai-3	450	450
Gate & Damper - Ukai-3	275	275
Mills	50	50
Coal pipes & bends	65	65

TECHNICAL CONDITIONS OF CONTRACT (TCC)

ANNEXURE III- EWS

ANNEXURE III

ERECTION WELDING SCHEDULE

		Name of Contractor/Subcontractor FIELD WELDING SCHEDULE										PG(S) : 19		
PROJECT : WANAKBORI 1&2 R&M & UKAI 3&5 R&M.(CUST.NO.:4291 TO 4294)												PG NAME : ECONOMISER (PP)		
CONTRACTOR : BHEL												FWS NO. :		
PACKAGE :												REV.NO. :00		
SYSTEM :ECONOMISER SYSTEM												WELDING CODE :IBR/ASME		
												PAGE NO. :1/1		
SL. NO.	PPA DRAWING DESCRIPTIONS	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS	PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC.	WPS NO.	MIN. PRE-HEAT TEMP	HEAT TREATMENT	NDT METHOD/QUANTUM	REF. SPEC. NO.	ACC. NORM REF	REMARKS
				SIZE	THICK		Wt. (gms)	QTY	REV.	HEAT TEMP °C	HOLD. TIME			
01	0-00-027-35817 TO 0-00-027-35820	ECO. FEED PIPE + I/L HDR	SA106GRC	ø323.0	36	GTAW & SMAW	ER70S-A1	E 7018-A1	100°C	595 TO 625	90 MINS	*	*	
02	0-00-027-35817 TO 0-00-027-35820	ECO. I/L HDR + COIL	SA210GRA1/GRC	ø44.5	5.0	GTAW & SMAW	ER70S-A1	E 7018-A1	NIL	-	-	*	*	
03	0-00-027-35817 TO 0-00-027-35820	ECO.(L) COIL + COIL	SA210GRA1/GRC	ø44.5	5.0	GTAW & SMAW	ER70S-A1	E 7018-A1	NIL	-	-	*	*	
04	0-00-027-35817 TO 0-00-027-35820	ECO.(U) COIL + COIL	SA210GRA1/GRC	ø44.5	5.0	GTAW & SMAW	ER70S-A1	E 7018-A1	-	-	-	*	*	
05	0-00-027-35817 TO 0-00-027-35820	ECO.INTER.HDRS + COIL	SA210GRA1/GRC	ø44.5	5.0	GTAW & SMAW	ER70S-A1	E 7018-A1	-	-	-	*	*	
06	0-00-027-35817 TO 0-00-027-35820	ECO.HGR.TUBES + COIL	SA210GRC	ø44.45	6.6	GTAW & SMAW	ER70S-A1	E 7018-A1	-	-	-	*	*	
07	0-00-027-35817 TO 0-00-027-35820	ECO.HGR.TUBES + COIL	SA210GRC	ø44.45	6.6	GTAW & SMAW	ER70S-A1	E 7018-A1	-	-	-	*	*	
08	0-00-027-35817 TO 0-00-027-35820	ECO.O/L HDR + COIL	SA106GRC/WPC	ø219.1	22.23	GTAW & SMAW	ER70S-A1	E 7018-A1	NIL	595 TO 625	90 MINS	*	*	
PREPARED		CHECKED (DESIGN)	CHECKED (W.T.C)	APPROVED		DATE		DRAWING NO:		REV.NO.				
DEVINDRA		DEVINDRA	MANIKANDAN	ANAND KUMAR		07.04.25		4-19-992-08473		00				

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		Name of Contractor/Subcontractor FIELD WELDING SCHEDULE										PG(S) : 11/12/19		
PROJECT : WANAKBORI 1&2 R&M & UKAI 3&5 R&M.(CUST.NO.:4291 TO 4294)												PG NAME : ECONOMISERS (NON-PP)		
CONTRACTOR : BHEL												FWS NO. :		
PACKAGE :												REV.NO. :00		
SYSTEM :ECONOMISER SYSTEM												WELDING CODE :IBR/ASME		
												PAGE NO. :1/1		
SL. NO.	PPA DRG. DESCRIPTIONS	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS	PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC.	WPS NO.	MIN. PRE-HEAT TEMP	HEAT TREATMENT	NDT METHOD/QUANTUM	REF. SPEC. NO.	ACC. NORM REF	REMARKS
				SIZE	THICK		Wt. (gms)	QTY	REV.	HEAT TEMP °C	HOLD. TIME			
01	0-19-906-02595	PLATE + PLATE	SA387GR.12 + CL2	—	12	SMAW	—	E 9018 B3	150°C	-	-	100% MPI OR LPI /SHIFT	*	*
02	0-19-905-02595	PLATE + ROD	SA387GR.12 + CL2	—	5	SMAW	—	E 8018 B2	150°C	-	-	100% LPI	*	*
03	0-19-905-02595	PLATE + ROD	SA387GR.12 + CL2	—	5	SMAW	—	E 8018 B2	150°C	-	-	100% LPI	*	*
04	0-00-027-34346	PLATE + PLATE	SA240TYP304	—	6	SMAW	—	E 308	NIL	-	-	100% LPI	*	*
04	0-00-027-34346	PLATE + ROD	SA240TYP304	—	10	SMAW	—	E 308	NIL	-	-	100% LPI	*	*
06	1-12-927-01801	PLATE + PLATE	SA387GR.12 + CL2	—	6	SMAW	—	E 8018-B2	150°C	-	-	100% MPI OR LPI /SHIFT	*	*
PREPARED		CHECKED (DESIGN)	CHECKED (W.T.C)	APPROVED		DATE		DRAWING NO:		REV.NO.				
DEVINDRA		DEVINDRA	MANIKANDAN	ANAND KUMAR		07.04.25		4-19-992-08474		00				

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 TIRUCHY	SUMMARY LIST OF SITE ELECTRODES
PROJECT : WANAKBORI 1&2 R&M & UKAI 3&5 R&M, (CUST.NO.: 4291 TO 4294)	
PROJECT : 4291, 4292, 4293 & 4294	
P.G. NO : 19	
P.G. NAME : ECONOMISER SYSTEM.	

SL. NO	TYPE OF ELECTRODE / WIRE	SIZE & QTY (Nos)				GTAW WIRE WT (gm)	REMARKS
		#2.5	#3.15	#4.0	#5.0		
01	ER70S-A1	-	-	-	-	15386.3	-
02	E 7018-A1	100	285	332	-	-	-
03	E 7018-1	14314	-	-	-	-	-
04	E9018-B3	-	-	-	-	-	-
05	E 308	-	-	-	-	-	-
06	E 8018-B2	-	-	-	-	-	-

NOTES:-

1. RESERVE 25% ADDED.
2. QUANTITY GIVEN IS PER BOILER
3. THIS ERECTION WELDING SCHEDULE IS FOR REFERENCE PURPOSE ONLY.

ENCL : ERECTION WELDING SCHEDULE SHEETS
 4-19-992-08473 & 4-19-992-08474

CC: 1. PROJECT CO-ORDINATOR/CONTRACTOR;
 2. SR.MANAGER/WTC
 3. WELDING SCHEDULE FILE

DATE : 12.04.25

PREPARED	CHECKED(DESIGNS)	APPROVED(WTC)	DRAWING NO.
DEVINDRA	DEVINDRA	ARIVAZHAGAN	4-19-992-08475

TECHNICAL CONDITIONS OF CONTRACT (TCC)

ANNEXURE III- EWS



Name of Contractor/Subcontractor
FIELD WELDING SCHEDULE

PG(S) : 06,07,10,11,12
PG NAME : SUPERHEATER SYSTEM

PROJECT : WANAKBORI 1&2 R&M & UKAI 3&5 R&M,(CUST.NO.:4291 TO 4294)
CONTRACTOR :BHEL
PACKAGE :
SYSTEM :SUPERHEATER SYSTEM

FWS NO. :
REV.NO. :00
WELDING CODE :IBR/ASME
PAGE NO. :1/3

SL. NO.	PPA DRAWING DESCRIPTIONS	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC.			WPS NO.	MIN. PRE. HEAT TEMP °C	HEAT TREATMENT HOLD. TIME	NDT METHOD/QUANTUM	REF. SPEC. NO.	ACC. NORM REF	REMARKS
								GTAW	SMAW SPEC.	QTY							
				SIZE	THICK			QTY	Wt. (gms)	Ø2.5	Ø3.15	Ø4.0					
01	0-00-027-35817 TO 0-00-027-35820	LTSH I/L HDR + LTSH LOOSE TUBES	SA210GRC + SA210GRC	Ø44.5	4.5	GTAW & SMAW	4.5 V	ER70S-A1	E 7018-1		1003/703	-	-	-	*	*	
02	0-00-027-35817 TO 0-00-027-35820	LTSH LOOSE TUBES + LTSH (L) BANK	SA210GRC + SA210GRC	Ø44.5	4.5	GTAW & SMAW	4.5 V	ER70S-A1	E 7018-1		1003/703	-	-	-	*	*	
03	0-00-027-35817 TO 0-00-027-35820	LTSH (L) BANK + LTSH (U) BANK	SA210GRC + SA213T11	Ø44.5	4.5	GTAW & SMAW	4.5 V	ER70S-A1	E 7018-1		1003/703	150	-	-	*	*	
04	0-00-027-35817 TO 0-00-027-35820	LTSH (U) BANK + LTSH TERMINAL TUBES	SA213T11 + SA213T11	Ø44.5	4.5	GTAW & SMAW	4.5 V	ER80S-B2	E8018-B2		1009/703	150	-	-	*	*	
05	0-00-027-35817 TO 0-00-027-35820	LTSH TERMINAL TUBES + LTSH O/L HDR	SA213T11 + SA213T11	Ø44.5	5.9	GTAW & SMAW	5.9 V	ER80S-B2	E8018-B2		1009/703	150	-	-	*	*	
06	0-00-027-35817 TO 0-00-027-35820	BP FRONT WALL EXTN+BP FRONT I/L HDR	SA210GRC + SA210GRC	Ø44.5	7.1	GTAW & SMAW	7.1 V	ER70S-A1	E 7018-1		1003/703	-	-	-	*	*	
07	0-00-027-35817 TO 0-00-027-35820	BP FRONT WALL EXTN+BP FRONT WALL	SA210GRC + SA210GRC	Ø51	4.5	GTAW & SMAW	4.5 V	ER70S-A1	E 7018-1		1003/703	-	-	-	*	*	
08	0-00-027-35817 TO 0-00-027-35820	BP (L) SIDE WALL EXTN +BP SIDE I/L HDR	SA210GRC + SA210GRC	Ø44.5	7.1	GTAW & SMAW	7.1 V	ER70S-A1	E 7018-1		1003/703	-	-	-	*	*	
PREPARED		CHECKED (DESIGN)	CHECKED (W.T.C)	APPROVED		DATE		DRAWING NO:				REV.NO.					
DEVINDRA		DEVINDRA	MANIKANDAN	ANAND KUMAR		07.04.25		4-12-992-15723				00					

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Name of Contractor/Subcontractor
FIELD WELDING SCHEDULE

PG(S) : 06,07,10,11,12
PG NAME : SUPERHEATER SYSTEM

PROJECT : WANAKBORI 1&2 R&M & UKAI 3&5 R&M,(CUST.NO.: 4291 TO 4294)
CONTRACTOR : BH&L
PACKAGE :
SYSTEM : SUPERHEATER SYSTEM

FWS NO. :
REV.NO. : 00
WELDING CODE : IBR/ASME
PAGE NO. : 2/2

S. NO.	P.P.A. DRAWING DESCRIPTIONS	DESCRIPTION OF PARTS TO BE WELDED	TERMINAL SPEC.	DIMENSIONS AND PROCESS OF WELDING		TYPE OF WELD	ELECTRODE FILLER SPEC.		MPS MILL TOL. PRE. REV. NO.	HEAT TREAT. HOLD. TEMP. °C	MGT. METHOD / QUANTITY	REF. SPEC. NO.	APPROV. REF.	REMARKS	
				SIZE	THICKENING		GTAW	SHAW							
9	0-00-027-20817 TO 0-00-027-20820	BP (HANGER SIDE WALLS) FUTURE PANEL	SAT208RC + SAT208RC	401	4.5	GTAW & SHAW	4.5 132	ER70S-41 1415.5 1006	E 70S-1	A	-	-	-	-	
10	0-00-027-20817 TO 0-00-027-20820	BP (L) REAR PANEL, FLTH (V) LUGS, VERT	SAT208RC + SAT208RC	404.0	8	GTAW & SHAW	8.0 180	ER70S-41 1332 2160	E 70S-1	A	-	-	-	-	
11	0-00-027-20817 TO 0-00-027-20820	UPH (V) REAR BP (U) REAR PANEL	SAT208RC + SAT208RC	404.5	5.0	GTAW & SHAW	5.0 136	ER70S-41 1163.2 1089	E 70S-1	A	-	-	-	-	
12	0-00-027-20820 TO 0-00-027-20817	BP REAR ROOF PANEL	SAT208RC + SAT208RC	404.5	5.0	GTAW & SHAW	5.0 136	ER70S-41 1163.2 1089	E 70S-1	A	-	-	-	-	
13	0-00-027-20817 TO 0-00-027-20820	BP REAR ROOF + BP JUNCTION JOINT	SAT208RC + SAT208RC	404.5	5.0	GTAW & SHAW	5.0 136	ER70S-41 1163.2 1089	E 70S-1	A	-	-	-	-	
14	0-00-027-20817 TO 0-00-027-20820	BP HANGER TUBES INVERT	SAT20719 + SAT20722	404.5	11.0	GTAW & SHAW	5.0 178	ER70S-41 1028.8 944	E 70S-1	A	160	30	-	-	
15	0-00-027-20820 TO 0-00-027-20817	BP HANGER TUBES INVERT	SAT20719 + SAT208RA	405	4.5	GTAW & SHAW	4.5 178	ER70S-41 1274.6 944	E 70S-1	A	160	-	-	-	
16	0-00-027-20817 TO 0-00-027-20820	BP SUREX TUBES INVERT	SAT20712 + SAT20723	404.5	11.0	GTAW & SHAW	5.0 244	ER70S-41 2123.8 1567	E 70S-1	A	160	30	-	-	
PREPARED				CHECKED (DESIGN)	CHECKED (W.T.C)	APPROVED			DATE			DRAWING NO.			REV.NO.
DEVINDRA				DEVINDRA	MANKANDAN	AMAND KUMAR			07.04.25			4-12-992-15724			00

TECHNICAL CONDITIONS OF CONTRACT (TCC)

ANNEXURE III- EWS



Name of Contractor/Subcontractor

FIELD WELDING SCHEDULE

PG(S) : 06,07,10,11,12

PG NAME : SUPERHEATER SYSTEM

PROJECT : WANAKBORI 1&2 R&M & UKAI 3&5 R&M, (CUST.NO.: 4291 TO 4294) FWS NO. :

CONTRACTOR : BHEL

REV.NO. : 00

PACKAGE :

WELDING CODE : IBR/ASME

SYSTEM : SUPERHEATER SYSTEM

PAGE NO. : 1/3

SL. NO.	PPA DRAWING DESCRIPTIONS	DESCRIPTION OF PARTS TO BE WELDED	MATERIAL SPEC.	DIMENSIONS		PROCESS OF WELDING	TYPE OF WELD	ELECTRODE FILLER SPEC.				WPS NO.	MIN. PRE. HEAT TEMP °C	HEAT TREATMENT HOLD. TIME	NDT METHOD/QUANTUM	REF. SPEC. NO.	ACC. NORM REF	REMARKS
				SIZE	THICKNESS			GTAW	SMAW SPEC.									
									QTY	Wt. (gms)	Ø2.5							
17	Q-00-027-35817 TO Q-00-027-35820	SH BP EXT SIDE NLET PIPES	SA106GRC + SA106GRB	Ø127	12.5	GTAW & SMAW	12.5V	ER70S-A1	E 7018-1					-	-	-	*	*
18	Q-00-027-35817 TO Q-00-027-35820	SH BP EXT SIDE NLET PIPES	SA106GRC + SA106GRB	Ø88.9	13.3	GTAW & SMAW	13.3V	ER70S-A1	E 7018-1					-	-	-	*	*
							Ø	134.4	64	80								
18	Q-00-027-35817 TO Q-00-027-35820	SH HANGER TUBES INSERT	SA213T12 + SA210GRA1	Ø51	4.5	GTAW & SMAW	4.5V	ER70S-A1	E 7018-1					150	-	-	*	*
20	Q-00-027-35817 TO Q-00-027-35820	BOFA PANEL	SA210GRC + SA210GRC	Ø63.5	5.6	GTAW & SMAW	5.6V	ER70S-A1	E 7018-1					-	-	-	*	*
							296	3966.4	3256									
21	Q-00-027-35817 TO Q-00-027-35820	DOWNCOMERS	SA106GRC + SA106GRC	Ø406.4	40	GTAW & SMAW	40V	ER70S-A1	E 7018-1					150	595 TO 625	100MINS	*	*
PREPARED		CHECKED (DESIGN)	CHECKED (W.T.C)	APPROVED		DATE		DRAWING NO:				REV.NO.						
DEVINDRA		DEVINDRA	MANIKANDAN	ANAND KUMAR		07.04.25		4-12-992-15725				00						
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PROJECT: WANAKBORI 1&2 R&M & UKAI 3&5 R&M,
(CUST.NO.:4291 TO 4294)
PROJECT: ~~4291,4292,4293&4294~~
P.G: NO : 06,07,10,11&12
P.G. NAME : SUPERHEATER SYSTEMS.

[illegible]

1. RESERVE 25% ADDED.
2. QUANTITY GIVEN IS PER BOILER
3. THIS ERECTION WELDING SCHEDULE IS FOR REFERENCE PURPOSE ONLY.

CC: 1. PROJECT CO-ORDINATOR/CONTRACTS:
2. SR.MANAGER/WTC
3. WELDING SCHEDULE FILE

DATE : 12.04.2025

PREPARED	CHECKED (DESIGNS)	APPROVED (WTC)	DRAWING NO.
DEVINDORA	DEVINDORA	ARIVAZHAGAN	4-12-992-15726

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Annexure-IV – GSECL General Safety Rules/Norms

ANNEXURE -IV

All the contractors working in **Gujarat State Electricity Corporation Limited Factory like Coal/Lignite/Gas/Hydro/Pumping Station** shall have to strictly observe the following Safety Rules. Concern principle contractors are responsible for informing & observance of these rules by their supervisors/contract workers as well as the owner/supervisors/ workers of sub-Contractors engaged, if any, by them for the work contract awarded to them. Prior to commencement of the work, Contractor shall have to submit a written assurance on their letterhead to the concerned Sectional Head / Engineer-in-charge that they have thoroughly gone through these Rules, have educated their employees / workers of their sub contractor and will strictly observe the said Rules while execution of work under work contract awarded to them. They will have to indemnify the company for any loss or damage / accident / injury to the company's property / employee or employee of their own in default of non - observing these rules.

- (01) Contractor should issue photo gate pass for their workers from GSECL Factory Manager as per Gujarat Factories rules, 1963 & details shall be filled up in GSECL gate pass format as per Aadhar card /Election card id proof & to follow the gate pass issue procedure through concern department EE & SE, Security Officer, LWO/IRO/DGM, Factory Medical Officer, Safety Officer/Dy. Safety Officer & Factory Manager.
- (02) In case of emergency, temporary photo gate pass shall be issued by Security Officer only for three days with prior permission of Factory Manager only. More than three days, Permanent photo gate pass procedure shall be completed by contract agency for their contract workers.
- (03) Certificate of Fitness of employment in hazardous process & operations in form no.33 of Gujarat Factories rules, 1963 shall be issued by GSECL Factory Medical Officer for all contractor workers before commencement of work & examination responsibility shall be taken by contractor as well as concerned Head of Department .Pre-employment & Periodical medical examination of contractor workers shall be carried out in form no.32 from GSECL Factory Medical Officer after every six (06) months of contractor with their contractor workers. Contractor shall be fulfilled all health requirements before commencement of work. After completion of medical examination in form no.32/33, GSECL Factory Medical Officer shall be signed in contract worker gate pass procedure format.
- (04) Contract worker gate pass will issue after completion of safety induction 3D animation movie & Training record is to be maintained in IMS/OHSAS training format by TK Office/LWO.
- (05) As per Gate pass format of GSECL, Safety Officer/Dy. Safety Officer shall be checked the issue PPE to contract workers as per nature of job, Form no.10 of lifting tools and tackles, Driving license, Electrical contractor license, Electrical trade qualifications, Safety induction training, SOP, supervisor qualifications etc. After fulfillment of all Safety compliances, Safety Officer/Dy. Safety Officer shall be signed in Contract worker Gate pass procedure format.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Annexure-IV – GSECL General Safety Rules/Norms

- (06) Work Contract shall be completed by principle contractor/agency/person who is awarded the work order. Subletting of contract shall be allowed only if prior approval of Power station chief before execution of work. Contractor/agency shall be submitted the entire subletting contract documents with gate pass application through concern department EE & SE, LWO/DGM, Safety Officer/Dy.Safety Officer & Factory Manager.
- (07) Under The Conditions Framed Under Rule-45 Of The Indian Electricity Rules, 1956,
Valid Electrical contractor License shall be submitted to concern electrical department EE/SE/Electrical Safety Officer/ Safety Officer/Factory Manager at the time of apply gate pass by agency/party with latest renewal from Chief Electrical Inspector, Gandhinagar-Gujarat. Electrical License photocopy shall be checked by Concerned HOD of Electrical Department/Electrical Safety Officer/Dy.Safety Officer/ Safety Officer/Factory Manager.
- (08) As per nature of job/work, Qualified supervisor (Diploma (Electrical/ Mechanical/Civil/C&I) + 3 years experiences or ITI + 10 years) shall be engaged by contract agency & qualification certificate with experience certificate shall be submitted to concern EE/SE/LWO/IRO/DGM/ Dy.Safety Officer /Safety Officer/Factory Manager at the time of apply gate pass.
- (09) As per rule 3 of CEA regulation ,2010: **Designating person(s) to operate and carry out the work on electrical lines and Apparatus**, Contract person/worker possesses a certificate of competency or electrical work permit, issued by the Appropriate Government. That means, Electrical trade Qualification of contract worker/person like ITI-wireman/ Electrician, Diploma (Elect), BE/B. TECH (Elect), ME/ M. TECH (Elect) shall be submitted to concern EE/SE/LWO/IRO/DGM, Dy.Safety Officer/ Safety Officer/Factory Manager at the time of apply for photo gate pass procedure.
- (10) As per nature of job/work & during capital overhauling work /Annual overhauling work /24X7 round the clock work/major shut down work, Qualified Safety Officer/Manager/Supervisor (BE/Diploma (Elect/Mech/Civil) + PDIS-Post Diploma in Industrial Safety) shall be engaged by contractor during dangerous operations/dangerous works as well as day to day dangerous activities, safety supervision, tool box talk, Safety awareness programme, SOP preparation with hazards & its control measures with each step , checking of lifting tools & tackles, hydra mobile crane, Safety precautions, coordination with Safety Department etc.
- (11) License of driver shall be submitted with gate pass issue application as per nature of vehicles & to follow the Motor vehicle Act,1988,the Central Motor Vehicles (Amendment) Rules,2016 as well as Gujarat Motor Vehicles rules,1989 & driver license shall be checked every day by security shift in charge before entry in the Factory premises.
- (12) SOP with JSA (Job Safety Analysis) shall be prepared by contractor through competent person as per GFR, 1963 or Qualified Safety Officer as per GFR, 1963 with 05 years experiences. SOP will review & approve by concern JE/DE/EE/SE/Elect. Safety Officer/Dy. Safety Officer /Safety Officer/Factory Manager before execution of work.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Annexure-IV – GSECL General Safety Rules/Norms

(13) It is compulsory to use standard make Personal Protective Equipments (P.P.Es.) as per the job requirement. Do not work without use of required P.P.Es. Contractor is responsible to provide standard make (ISI/DGMS/CE/EN/ANSI approved) & to checked standard/make in PPE issue format by concern JE/DE/EE/SE/Safety Officer/Factory Manager. Personal Protective Equipments / Safety Gadgets suitable to give sufficient protection against hazards involved in their work / job to their staff, as per the job requirement and insist / enforce their workers to put on the same while at works.

Party has to submit PPE under taking in attached annexure. During technical scrutiny of work tender , Undertaking for PPEs shall be checked by Safety officer and if PPEs mention in tender are not as per standard Safety Officer & Factory Manager shall disqualify bidder technically.

The ongoing work is liable to be stopped at any time if your contract workers/staffs found working without P.P.Es. Following is the list of various P.P.Es (as per ISI/DGMS/CE/ EN/ ANSI approved only) to be used for various works / worksites.

In any work, Contractor shall be issued the minimum 05 nos. of PPEs like Safety Shoes, Safety Helmet, Safety goggles, Mask & Reusable Ear plug to their workers/supervisor compulsory & it will check by concern section HOD & Dy.Safety Officer /Safety Officer at the time of gate pass procedure.

List of safety equipments

Industrial Safety Helmet	For protection of head against falling objects or during fall of person from height. Yellow Colour helmet is used for contract worker with agency logo.
Safety Goggles/welding goggles/chemical splash goggles	For protection of eyes against flying particles / dust, chemical splash, welding spark, arc, flashover etc.
Full Face shield	For protection of face against flying particles / dust, chemical splash, spark, arc, flashover etc.
Reusable Earplug / Ear muffs.	For ear / hearing system protection while working in high noise level area.
Chemical suit/Gas tight suit /Fire proximity suit/FR Boiler Suit	For body protection against chemicals, oils, sharp edged objects, heat, hot objects etc.
Safety Hand Gloves	For protection of hands against chemicals, oils, sharp edged objects, heat, hot metals/objects, electricity etc.
Safety shoes/ Gum Boots with Oil/Chemical/water/heat/Electrical resistance etc.	For protection of leg/feet against falling objects, sharp edged objects, heat, hot metals/objects, electricity etc..

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Annexure-IV – GSECL General Safety Rules/Norms

Safety Belt(full body hardness with double lanyard & shock absorber) / Rope / Life line / Fall arrestor etc.	For fall prevention while working at heights or in depth, working in vessel or in confined space.
Dust Mask/Respirator with valve (FFP2)	Protection of respiratory system against dust.
Chemical Cartridge Respirator with full face mask type A2B2E2K2	Protection against toxic chemical fumes / gases/vapors/dust etc.
Trolley mounted Air line respirators with full face mask	Working in oxygen deficient zone or confine space area
Portable Single gas detector like Chlorine, Ammonia, Hydrogen, etc	Working in hazardous storage/process area
Portable Multi gas Detector (LEL,O ₂ ,CO,H ₂ S,SO ₂ , etc)	Working in oxygen deficient zone & use in entry of confine space & Major fire
Automatic voltage detector	To check the present voltage or induction voltage of electrical equipments/ bus/switch gears from 01 (one) feet distance before starting the any electrical work .
Auto darkening welding helmet (EN 379 & EN 175 Level-B) with PAPR as per EN 12941:1998, class TH2 and AS/NZS 1716	The new auto darkening welding helmet combines legendary Speed glass quality and auto darkening technology with an innovative wide-view grinding visor to give welders an all-in-one solution for more flexibility, precision, and efficiency. Respiratory System is a combined face and breathing protection device, for increased comfort and safety in welding. The unit is equipped with a particle filter which removes particles from the air. The unit provides a constant airflow independent of filter combinations and clogging. The unit can also be equipped with a gas filter (for example A1B1E1). The unit supplies air to the head top via the connecting breathing tube. The airflow creates a slight positive pressure which together with the sealing to the face prevents particles and other contaminants from entering the head top.

(14) All PPEs (as per ISI/DGMS/CE/EN/ANSI approved only) Should issued by party/agency/contractor to their contractor workers as per nature of job and allotment of PPE list shall be submitted to Safety Officer on his letter head as per below mentioned format by Contractor before commencement of work through concerned JE,DE,EE/SE

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Annexure-IV – GSECL General Safety Rules/Norms

Sub: Issue of PEE to Contractor workers

Sub of work Order:

Work order no.

Name of Agency:

Date of Commencement:

Time limit for work order:

Sr. no.	Name of workers	Designation	Name of Section under work execution	Name of PPE	IS :Code no. of PPE	Make of PPE	Qty	Unit	Date of issue	Receiving signature
A	B	C	D	E	F	G	H	I	J	K
01				Safety Helmet				Nos.		
				Safety goggles				Nos.		
				Reusable Ear Plug				Pair		
				Dust Mask				Nos.		
				Safety Shoes				Pair		

(15) Shift Security Inspector/Security Officer shall be checked Safety Shoes & Safety Helmet of all contractor workers at entry gate of Factory Premises & shall entered contractor workers with Safety Shoes & Safety Helmet with photo ID Gate Pass.

(16) Shift Security Inspector/Security Officer shall be checked validity of Gate pass of all contractor workers on daily basis.

(17) During the work execution, one trained & competent supervisor of agency should always remain present at work site. Concern JE/DE of GSECL shall be supervised the contract work as per SOP .

(18) Approved NABL laboratory calibration certificates of electrical/mechanical/Civil/C&I/Environment survey/Chemical etc measuring /testing equipments/instruments which are used during contract work shall be submitted before starting the work & shall be checked by concern JE/DE/EE before starting work & it's record shall be maintained in concern section.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Annexure-IV – GSECL General Safety Rules/Norms

- (19) The contractor shall take all the required safety measures prior to commencement of work on dangerous substances, machineries or area at which cautionary notice is displayed and obtain “Line Clear” or “Work Permit” through the concern Department / Section JE/DE and shall be informed to concern section JE/DE for closed/ returned after completion of work.
- (20) Safety talk/Safety work instructions shall be given to contractor workers by concern JE/DE regarding hazards of specific work, risk & it's control measure (mentioned in HIRA) before starting the job work and records shall be maintained for each & every job works. (21) Display Safety instructions shall be strictly followed by all workers who are working in factory premises.
- (22) Material Safety Data Sheet (MSDS) of each chemical shall be available with Chief Chemist/Control room & work related Chemical information shall be taken by contractor & contractor workers from Concern EE/Chief Chemist before starting of chemical handling work.
- (23) The contractor shall be checked & securely covered or securely fenced any opened fixed vessel, sump, tank, pit or opening in ground or in floor which, by reason of its depth, situation, construction or contents ,is or may be a source of danger before starting the work each & every days or after interval/recess. Contractor supervisor shall be informed to concerned HOD regarding any unsafe conditions.
- (24) Prohibition of smoking, fires, lights, spontaneous ignition substance, matches; fuses, mobile phone etc are to be strictly followed by all workers who are working in factory premises.
- (25) Prior to carrying out welding, gas cutting, furnace heating or any other hot work job, remove all the inflammable material lying at or nearby worksite or cover it properly by suitable protective covering. Also, special care shall be taken before carrying out such job & see that all possible contributing factors to set fire shall be removed / vanished prior to commencement of the work. Advance intimation shall be given to concerned section / fire section to commence the work in fire prone areas. They should also keep ready all the First Aid Fire Extinguishers / equipments & fire extinguishing media / material like sand / water buckets or other appropriate equipment at such place.
- (26) While carrying out work in confined space or inside vessel, obtain necessary **“Confined Space / Vessel Entry Permit”** from concerned department prior to commencement of the work. For lighting in such areas, only 24-volt (ISI certified & with proper guard) hand lamp shall be used. For taking care of the persons working inside the confined space / vessel, a supervisor / person capable to keep continuous watch on person(s) working inside, assist them in case of emergency or arrange to get immediate outside help, shall remain present at entry point. Use full body safety belt without failed. While working inside sewage, trench or in-depth, a person to warn outsiders / entrants / passers etc shall remain available near entry point or the entry point shall be cordoned by a barricaded tape with a cautionary notice. After completion of the works, all the lids / covers / grills / grits opened, shall be refixed / re-placed

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in the original position as it were prior to commencement of the work and leave the work place in safe condition in all respect, so as to prevent accident to fellow workers.

- (27) The contractor shall see that he / his persons do not work on or block (by stacking material, spare parts, tools-tackles, equipments etc), any passages / walkways / gangways / aisles / staircases / ladders / lifts or any other approaches / roads leading to plants or its auxiliaries, on which there is traffic movements or possible traffic movements in case of emergency. Such passages are meant for safe escape in the event of emergency. If it is utmost necessary to carry out work in such area with blocking of passage, prior permission of Competent Authority or the Engineer-In-Charge shall be obtained. To demarcate / declare the area as **"UNSAFE"**, cordon it using barricading tape & display suitable caution notice or keep a person to restrict / divert the traffic on this route through other safe passage.
- (28) Prior to use power / electrically operated hand tools / equipments / machines / gadgets like welding machine, hand grinder, hand drill etc, ensure for its safe operation & use it only if it is found safe to use. Do not use defective, unsafe or improperly maintained equipments. The electrical power supply required to run such equipments shall not be taken directly at their own but shall be obtained through concerned Electrical Maintenance Departments or their authorized persons or under their observations / guidance only. The Electrical Section shall provide temporary electrical connection up to contractor's Mains Board on which it is compulsory to install mains switch, ELCB & fuses of adequate capacity. All such equipments shall invariably be earthed adequately to prevent electrical shock, sparking, short circuit etc. Power cord to be used shall be of adequate capacity, without any joint & shall consist of earth wire also. Hence, it is necessary to use adequate capacity 3-wire power cord for single & 5-wire power cord for three phase power connections. The plugs, receptacles, pins, holders etc shall be of adequate capacity & safe to use.
All electrical & mechanical equipments / tools-tackles viz. welding machine, cutting machine, Grinder, Drill, Chain Pulley Blocks, Hook chooks etc required to be used during work execution shall be of standard make & bear ISI certification mark on it. The consumables like welding electrodes, grinding wheels / discs etc which has specific prescribed life span shall not be used in any case if its expiry date is over.
- (29) Non-Sparking Non-Magnetic electrical hand tools and tool kits shall be used by Electrical contractor for safe use in areas where hazardous, flammable, or combustible vapors, liquids, dusts, or residues may be present in Gas Based power plant and list of tools and tackles shall be submitted with technical bid.
Non-Sparking Non-Magnetic electrical hand tools and tool kits shall be checked by JE/DE before commencement of Electrical work.
- (30) Before using lifting machines / tackles (like C.P.Bs., Hook chooks, winch, forklift, mobile crane, EOT crane etc) & its attachments (like D-shackles, slings, U-clamps, Eye bolts or any fixtures), it shall be checked and used only if found safe to use. Also, ensure that these are tested, examined & certified in form no.10 by Competent Person as per the Factory act-1948

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& Gujarat Factories Rules and its validity do not expire. Further, it shall be fixed properly and firmly prior to lifting the weight. **Valid Test certificate of all Lifting machines used by Contractor to be submitted to Dy.Safety Officer/ Safety Officer before commencement of work through concerned EE/SE.**

- (31) Metal Scaffoldings to be used for working at height shall be of adequate size & capacity. Obtain the work permit when working at height. While climbing on such scaffolding or working on any structure at height, use of full body safety belt /full body harness with double lanyard & Fall arrestor & Helmet is compulsory. It is also necessary to fasten chinstraps of the helmet.
- (32) Contractor or their employee shall not interfere in day-to-day routine plant activities / works except the work assigned to them, shall not loiter in the areas other than their work jurisdiction, as well as shall not temper / operate / touch the machineries/equipments/auxiliaries with which they are not concerned. Also, the contractor shall strictly instruct their staff for not to sit or take rest at/near/below running plants, auxiliaries, systems or any place which is risky, hazardous & prone to accident.
- (33) The cylinders containing poisonous / toxic or inflammable / explosive gas like Oxygen, Acetylene, LPG, Hydrogen, Ammonia, Chlorine, CO₂ etc shall be handled safely taking due care. To handle / shift such cylinders a special trolley /cage meant for it must be used but in no case it should be rolled.
- (34) In Gas Based Power station/Hydrogen storage area /Hydro carbon fumes-vapour generated area, Spark arrestor (as per approved manufacturer of CCOE, Nagpur) shall be provided on each vehicle by party/agency and it will check by shift security in charge before entry of vehicles in the factory premises.
- (35) No women or young person shall be employed or permitted to work in Lead-compound area like battery room etc. as per schedule VI of GFR 1963.
- (36) No women or young person shall be allowed to clean, lubricate or adjust any part of a prime mover or of any transmission machinery while the prime mover or transmission machinery is in motion. Examination or operation of motion machinery shall be made or carried out only by a specially trained adult male worker wearing tight fitting clothing as per section 22 of factories act 1948.
- (37) In all risky job, before start the work, contractor should obtain General Safety Work Permit through concerned section from Shift –in-charge well in advance.
- (38) In case of noticing smoke or fire during their work execution, they shall make immediate efforts to extinguish / control it and simultaneously inform the Fire Station Mobile No as well as Station Fire Officer or Emergency Control room no which is displayed at prominent place of factory like Main Security Gate, All unit control room, Canteen area, Safe Assembly points, Fire Station, All security gates, Occupational Health Centre.
- (39) In case of any injury / accident while working, it shall immediately be reported to Safety Department through concerned Sectional Head / Engineer. The prescribed **Form No. 21 & ANNEXURE** may be obtained from concerned section or Dy.Safety Officer/Safety Officer.

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In case of any electrical accident, it shall immediately be reported to Electrical Safety Officer through concern Sectional Head / Engineer. The prescribed **Electrical accident form no. A as per electricity act-2003 & Form No. 21 & ANNEXURE as per Gujarat Factories** rules shall be filled up by concern department JE/DE with written consent of contractor. The Form may be obtained from concerned Electrical section or Electrical Safety Officer. Electrical accident investigation shall be carried out by Electrical Safety Officer with Factory Manager.

After any reportable accident, Contract agency shall be submitted the fitness certificate of injured person with endorsement of GSECL factory Medical Officer to LWO/Dy.Safety Officer/Safety Officer/Electrical Safety Officer then after injured person may allow for work.

- (40) For any incident occurred but have no injury to any persons should also reported as per GSECL format and informed to Dy.Safety Officer/Safety Officer **as Near Miss Incident.**
- (41) **Safety penalty shall be imposed against Offences by contract workers:** If any contract worker worked in a factory contravenes any provision of Factories act or any rules or orders made there under ,imposing any duty or liability on workers, contractor/agency shall be punishable with fine which mentioned as under.

Sr. No.	Description of penalty	Amount
(i)	Work without PPEs	Rs.300/- per person
(ii)	Work without work Safety permit like working at height, confine space entry, hot work etc.	Rs.1000/- per day
(iii)	License of driver as per type of vehicles not registered.	Rs.750/- per person
(iv)	Welding work without flashback arrestor/double gauge regulator set	Rs.1000/- per set
(v)	Operate Portable power tool without ELCB	Rs.1000/-per equipment
(vi)	Work without qualified Supervisor as per nature of job like mechanical, electrical, civil, C&I, chemical etc.	Rs.1000/-per day
(vii)	Work without SOP & JSA	Rs.2000/-per day
(viii)	Work without test report of lifting machines / tackles (like C.P.Bs., Hook chooks, winch, forklift, mobile crane, EOT crane etc) & its attachments (like D-shackles, slings, Uclamps, Eye bolts or any fixtures) in Form No.10 of Gujarat Factories Rules,1963	Rs.2000/- per equipment
(ix)	Work without Double lynyer Safety belt during working at Height work, work without anchoring in hook/line line	Rs.3000/-per person

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(x)	Work without 24 Volt supply in Confine space area	Rs.3000/-per person
(xi)	(a)Grinding machine used without safety guard/machine guard . (b)Unsafe welding machine like open body, knob without insulation, connection without lug. Damaged welding cables / gas pipelines. Welding work doing without welding blanket. Electrical supply without 3 pin plug/ industrial plug. Use of damaged electrical wires for lighting /equipments.	Rs.500/- per equipment /per set
	(g) Use of lighting lamp without cage. (h)Use of open halogen tube. (i)Use of damaged PPEs/ non standard PPEs. (j)Unsafe lifting and handling of gas cylinders. (k)Cylinder handling without cap. (l)Temporary connection without ELCB etc.	

During plant visit / supervision of concern JE/DE/EE, SE, Dy. Safety Officer/Safety Officer, Electrical Safety Officer, Factory Manager, If they will observed any safety violations as per CO circular/statutory requirements then they must impose Safety Penalty through office note directly against contract workers /contract agency and office note process through proper channel to concern Sectional Head and Account head for recovery purpose. Photograph/CCTV camera footage is to be put up with penalty note by imposing officer.

- (42) Party will damage any fire equipments or property or machinery in factory during execution of work, total damage cost will be recovered from party RA bill and recovery Office note put up by concern HOD. (43) All the relevant labour and industrial laws shall also be followed compulsorily.
- (44) After completion of work, cotton waste, grease, oil, unused material, welding rod pieces, scrap etc. are to be removed by contractor and scrap shall be deposited to scrap yard of Main Store.
- (45) For performance evaluation of contractor, safety factors of work accident, fire incident & near miss accident will be considered. Steps can be taken to review the job assignment up to cancellation for negligence.
- (46) Over & above these, contractor shall have to follow all the safety requirements /rules & regulations / norms and legal provisions laid down in various statutes. Particularly the provisions of The Factories Act-1948 & the Gujarat State Factories Rules-1963 (Amended up to date), The Electricity Act-2003 & rules, BOCW Act/Rules shall be followed strictly. The

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contractor shall also obey the rules / regulations / instructions of the local Competent Authority for safety & health requirements.

- (47) The above rules shall be scrupulously followed and where required, Contractor /contractor workers may contact to the Dy.Safety Officer/Safety Officer/Electrical Safety Officer in case of any ambiguity or needs further guidance in this regard.