

TENDER SPECIFICATION
NO: BHE/PW/PUR/HZGG-CVL/1122

**CONSTRUCTION OF MISC. CIVIL WORKS AND REPAIRS / RENOVATION OF
EXISTING PLANT ROADS AND DRAINS INCLUDING ALL ASSOCIATED
FINISHING & ARCHITECTURAL WORKS**

AT

**1X350MW CCPP, GUJARAT STATE ELECTRICITY CORPORATION LIMITED
(GSECL) HAZIRA - GUJARAT.**

TECHNICAL BID - VOLUME- I

TENDER SPECIFICATIONS CONSISTS OF:

- **Notice Inviting Tender**
- **Volume 1 A - Technical Conditions of Contract,**
- **Volume 1 B - Special conditions of Contract,**
- **Volume 1 C - General conditions of Contract**
- **Volume 1 D - Forms & Procedures**



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 as files titled	No. of pages
NIL	Tender Specification Issue Details	(Part of <u>Vol-IA-1122</u>)	1
NIL	Notice Inviting Tender	(Part of <u>Vol-IA-1122</u>)	20
I-A	Technical Conditions of Contract	Vol-I-1122	31
I-B	Special Conditions of Contract	Vol-IBCD-1122	47
I-C	General Conditions of Contract	(Part of <u>Vol-IBCD-1122</u>)	29
I-D	Forms & Procedures	(Part of <u>Vol-IBCD-1122-</u>)	54
II	Price Bid Specification	Vol-II-1122	13

LEGEND:

- 1) Technical Specifications (Drawings)-VOL-I-E is a separate book issued with tender and it's a part of technical bid.

Tender Specification Issue Details

Tender Specification No: BHE/PW/PUR/ PUR/HZGG-CVL/1122

**CONSTRUCTION OF MISC. CIVIL WORKS AND REPAIRS / RENOVATION OF
EXISTING PLANT ROADS AND DRAINS INCLUDING ALL ASSOCIATED FINISHING
& ARCHITECTURAL WORKS**

AT

**1X350MW CCPP, GUJARAT STATE ELECTRICITY CORPORATION LIMIED
(GSECL) HAZIRA - GUJARAT.**

EARNEST MONEY DEPOSIT: Refer Notice Inviting Tender

LAST DATE FOR TENDER SUBMISSION Refer Notice Inviting Tender

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING VOLUME-I-Tech Bid, VOL-I-E- Technical Specifications (Drawings), VOLUME- II-Price Bid AND VOLIME-IBCD Rev-01 Rev-01 ARE ISSUED TO:

M/s.

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**PLEASE NOTE:
THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.**

For Bharat Heavy Electricals Limited

DY. GENERAL MANAGER (Purchase)

Place: Nagpur

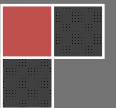
Date:

1122

NOTICE INVITING TENDER

(Document No PS:MSX:NIT:Rev 01 dated 1st Jun
2012)

Bharat Heavy Electricals Limited



NOTICE INVITING TENDER (NIT)

**NOTE: BIDDER MAY DOWNLOAD FROM WEB SITES
OR
PURCHASE TENDERS FROM THIS OFFICE ALSO**

To

Dear Sir/Madam

Sub: NOTICE INVITING TENDER

Sealed offers in two part bid system are invited from reputed & experienced bidders (meeting [PRE QUALIFICATION CRITERIA](#) as mentioned in Annexure-I) 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

SL NO	ISSUE	DESCRIPTION
i	TENDER NUMBER	BHE/PW/PUR/HZGG-CVL/1122
ii	Broad Scope of job	CONSTRUCTION OF MISC. CIVIL WORKS AND REPAIRS / RENOVATION OF EXISTING PLANT ROADS AND DRAINS INCLUDING ALL ASSOCIATED FINISHING & ARCHITECTURAL WORKS AT 1X350MW CCPP, GUJARAT STATE ELECTRICITY CORPORATION LIMITED (GSECL) HAZIRA - GUJARAT.
iii	DETAILS OF TENDER DOCUMENT	
a	Volume-IA	<i>Technical Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc</i> Applicable
b	Volume-IB	<i>Special Conditions of Contract (SCC)</i> Applicable
c	Volume-IC	<i>General Conditions of Contract (GCC)</i> Applicable
d	Volume-ID	<i>Forms and Procedures</i> Applicable
e	Volume-II	<i>Price Schedule (Absolute value).</i> Applicable
iv	Issue of Tender Documents	1. <u>Sale from BHEL PS WR office at NAGPUR:</u> Start 04/03/2013: Closes: 13/03/2013, Time : 13.00 Hrs Applicable

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 6 of 54

		<p>2. From BHEL website www.bhel.com Tender documents will be available for downloading from website till due date of submission</p>	
v	DUE DATE & TIME OF OFFER SUBMISSION	<p>Date : 13/03/2013, Time : 15.00 Hrs Place : <u>BHEL PS Regional office at :Nagpur</u> Tenders being submitted through representative shall be handed over to any of the following BHEL officials after making entry/registration at the reception: S M Borkar / DGM (Purchase) Shivkesh Meena / Engineer (Purchase)</p>	Applicable
vi	OPENING OF TENDER	<p>1 hours after the latest due date and time of Offer submission 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</p>	Applicable
vii	EMD AMOUNT	Rs 2.00 Lakhs (Rs Two Lakhs Only)	Applicable
viii	COST OF TENDER	Rs 2000/-. (Rs Two Thousand only)	Applicable/Not Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	<p>Atleast 5 days before the due date of offer submission Along with soft version also, addressing to undersigned & to others as per contact address given below</p>	Applicable
x	SCHEDULE OF Pre Bid Discussion (PBD)	Date :	Applicable/Not applicable.
xi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)	----	Applicable/Not Applicable
xii	Latest updates	<p>Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in</p>	

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 7 of 54

		BHEL webpage (www.bhel.com -->Tender Notifications →View Corrigendums) and not in the newspapers . Bidders to keep themselves updated with all such information	
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- 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 & stamped on each page, 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 Unless specifically stated otherwise, bidder shall remit cost of tender and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Power Sector Regional HQ at Nagpur issuing the Tender, along with techno-commercial offer. Bidder may also choose to deposit the Tender document cost by cash at the Cash Office as stated above against sl no iv of 1, on any working day; and in such case copy of Cash receipt is to be enclosed with the Techno Commercial offer. Sale of tender Documents shall not take place on National Holidays, holidays declared by Central or State Governments and BHEL PS HQ at Nagpur, Sundays and second/ last Saturdays
- 4.0 Unless specifically stated otherwise, bidder shall deposit EMD through Demand Draft/Pay Order in favour of Bharat Heavy Electricals Ltd, payable at Nagpur. For other details and for 'One Time EMD' please refer General Conditions of Contract.
- 5.0 **Procedure for Submission of Tenders:** 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/COST of TENDER)' 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
- 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)**

Sl no	Description	Remarks
	Part-I A	
	ENVELOPE – I superscribed as : PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:	
	CONTAINING THE FOLLOWING:-	
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. Note: 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	

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 8 of 54

	<p>that deviation recorded elsewhere shall not be entertained.</p> <p>b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding.</p> <p>i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL</p> <p>ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender</p>	
iii.	<p>Supporting documents/ annexure/ schedules/ drawing etc as required in line with Pre-Qualification criteria.</p> <p>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.</p>	
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, 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	
	<p>ENVELOPE – II superscribed as: PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:</p> <p>CONTAINING THE FOLLOWING:-</p>	
i.	<p>1. Earnest Money Deposit (EMD) in the form as indicated in this Tender</p> <p align="center">OR</p> <p>Documentary evidence for 'One Time EMD' with the Power Sector Region of BHEL floating the Tender</p> <p>2. Cost of Tender (Demand Draft or copy of Cash Receipt as the case may be)</p>	

	PART-II	
	PRICE BID consisting of the following shall be enclosed	
	<p>ENVELOPE-III superscribed as: PART-II (PRICE BID)</p>	

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 9 of 54

	TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:	
	CONTAINING THE FOLLOWING	
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	
	ENVELOPE-IV (MAIN ENVELOPE / OUTER ENVELOPE) superscribed as: TECHNO-COMMERCIAL BID, PRICE BID & EMD TENDER NO: NAME OF WORK: PROJECT: DUE DATE OF SUBMISSION:	
	CONTAINING THE FOLLOWING:	
i	<ul style="list-style-type: none"> o Envelopes I o Envelopes II o Envelopes III 	

SPECIAL NOTE :All documents / annexure's submitted with the offer shall be properly annexed and placed in respective places of the offer as per enclosure list mentioned in the covering letter. BHEL shall not be responsible for any missing 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:**
Bidders capacity for executing the job under tender shall be assessed 'LOAD' wise and 'PERFORMANCE' wise 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 'Load' is the sum of the unit wise identified packages (refer Table-1) for contracts with BHEL Regions. The cut off month for reckoning 'Load' shall be the month, two (2) months preceding the month corresponding to the 'latest date of bid submission', in the following manner:

(Note: For example if latest bid submission is in Aug 2011, then the 'load' shall be calculated upto and inclusive of June 2011)

- i). Total number of Packages

Total number of Packages in hand = P
Where

- Pis the sum of all unit wise identified packages under execution with BHEL Regions as of the cut off month defined above, including packages yet to be commenced.

ii) Weightage “A” assigned to bidders based on Total number of Packages

‘P’:

- If ‘P’ = 0-9, : “A” will be equal to ‘4’
- If ‘P’ = 10-18, : “A” will be equal to ‘3’
- If ‘P’ = 19-36, : “A” will be equal to ‘2’
- If ‘P’ = 37-60, : “A” will be equal to ‘1’
- If ‘P’ is above 60 : “A” will be equal to ‘0’

II. **PERFORMANCE:** Here ‘Monthly Performance’ of the bidder for all the packages (**under execution**/ executed during the ‘Period of Assessment’ in all the 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 the cut off month. The cut off month for reckoning ‘Period of Assessment’ shall be the month two (2) months preceding the month corresponding to the ‘latest date of bid submission’, in the following manner:

(Note: For example if ‘latest date of bid submission’ is in Aug 2011, then the ‘performance’ shall be assessed for a 6 month period upto and inclusive of June 2011, 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:

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:

- $P_1, P_2, P_3, P_4, P_5, \dots, P_N$ etc be the packages (**under execution**/ executed during the ‘Period of Assessment’ in all Regions) **SIMILAR** to the packages covered under the tendered scope, excepting packages not commenced. Total number of similar packages for all Regions = P_T (ie $P_T = P_1 + P_2 + P_3 + P_4 + \dots + P_N$)
- 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 $T_T = T_1 + T_2 + T_3 + T_4 + \dots + T_N$)
- Sum ‘ S_1 ’ of ‘Monthly Performance Evaluation’ Scores ($S_{1-1}, S_{1-2}, S_{1-3}, S_{1-4}, S_{1-5}, \dots, S_{1-N}$) for similar package P_1 , for the ‘period of assessment’ ‘ T_1 ’ (i.e $S_1 = S_{1-1} + S_{1-2} + S_{1-3} + S_{1-4} + S_{1-5} + \dots + S_{1-N}$). 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):**

Aggregate of Performance scores for all similar packages in all the Regions

Aggregate of months for each of the similar package 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**

S l o	Item Description	Details for all Regions							Total
		(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii)	
1	Similar Packages for all Regions →	P ₁	P ₂	P ₃	P ₄	P ₅	...	P _N	Total No of similar packages for all Regions = P_T ie Sum (Σ) of columns (iii) to (ix)
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 Package (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,} 2, S _{3-3,} 3, 3, 3, ... S _{3-T3}	S _{4-1,} S _{4-2,} 2, S _{4-3,} 3, 3, 3, ... S _{4-T4}	S _{5-1,} S _{5-2,} 2, S _{5-3,} 3, 3, 3, ... 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
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ii) Weightage “B” assigned to bidders based on Overall Performance Rating (R_{BHEL}) at Power Sector Regions, for the respective Package:

- a) If $R_{BHEL} \geq 80\%$, “B” will be equal to ‘6’
- b) If $R_{BHEL} \geq 75\% < 80\%$, “B” will be equal to ‘5’
- c) If $R_{BHEL} \geq 70\% < 75\%$, “B” will be equal to ‘4’
- d) If $R_{BHEL} \geq 65\% < 70\%$, “B” will be equal to ‘3’
- e) If $R_{BHEL} \geq 60\% < 65\%$, “B” will be equal to ‘2’
- f) If $R_{BHEL} < 60\%$, “B” will be equal to ‘0’

III. ‘Assessment of Capacity of Bidder’ to be Qualified for the tender:

Shall be based on the sum of the weightages obtained in ‘LOAD’ (A) and ‘PERFORMANCE’ (B) as below:

- a) If the sum (A+B) is 6 or above for each of the applicable Package, then the Bidder is considered ‘Qualified’ for the tender
- b) If the sum (A+B) is less than 6 for any of the applicable Package, then the Bidder is considered ‘NOT Qualified’ for the tender

IV. Explanatory note:

- a) Similar package means Boiler or ESP or Piping or Turbine or Civil or Structure or Electrical or CI, 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, CI, 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 identified packages (ie Boiler, ESP and Power Cycle Piping) and finally the Bidder’s capacity to execute the tendered scope is assessed in line with III above
- b) Identified Packages (Unit wise)

Table-1

	Civil	Electrical & CI	Mechanical
	i). Enabling works	i). Electrical	i). Boiler & Aux (All types including CW Piping if applicable)
	ii). Pile and Pile Caps	ii). CI	ii). Power Cycle Piping/Critical Piping
	iii). Civil Works including foundations	iii). Others (Elec& CI)	iii). LP Piping
	iv). Structural Steel Fabrication & Erection		

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 13 of 54

	v). Chimney vi). Cooling Tower vii). Others (Civil)		iv). ESP 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 Handling x). Material Management xi). Material Handling & Material Management xii). Others (Mechanical)
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c) Vendors who are first timers to any BHEL Region, may be considered subject to satisfying other tender conditions. Eligibility of the party for the next tender of any package in that Region, shall be subject to the bidder satisfying the 'Assessment of Capacity of Bidder' for a period of first **nine months** after commencement of work or contract duration whatever is lesser.

In case the first timer is executing any other packages in any BHEL Region, then the performance evaluation will be based on the data available for the other packages though not similar, for the 'Period of assessment', for the purpose of 'Assessment of Capacity of Bidder'

d) Vendors who are not first timers and who have not been executing any package or packages similar to the packages under the tender in the 'Period of assessment', shall be considered qualified subject to them satisfying all other tender conditions.

e) In the unlikely event of all bidders shortlisted against Technical and Financial Qualification criteria not meeting the criteria on 'Assessment of Capacity of Bidders' detailed above, OR leads to a single tender response on applying the criteria of 'Assessment of Capacity of Bidders', then BHEL at its discretion, reserves the right to consider the further processing of the Tender based on the **Overall Performance Rating 'R_{BHEL}'** only.

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

- i. upto Boiler Steam Blowing in case of Steam Generator and Auxilliaries
- ii. upto Synchronisation in case of all other works excepting sl no (i) and (iii)
- iii. upto execution of at least 75% of anticipated contract value (unit wise), in case of Enabling works or Civil & Structures.

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

g) Performance evaluation in CL 9 above is applicable to Prime bidder and consortium partner (or Technical tie up partner) for their respective scope of work

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.

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- 11.0 For any clarification on the tender document, the bidder may seek the same in writing or through e-mail, 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.**
- 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 authorised 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 BHEL reserves the right to decide the successful bidder on the basis of Reverse Auction process. In such case all qualified bidders will be intimated regarding procedure/ modality for Reverse Auction process prior to Reverse Auction and price will be decided as per the rules for Reverse Auction. .
- However, if reverse auction process is unsuccessful as defined in the RA rules/procedures, or for whatsoever reason, then the sealed 'PRICE BIDS' will be opened for deciding the successful bidder. BHEL's decision in this regard will be final and binding on bidder.
- 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 Consortium Bidding (or Technical Tie up) shall be allowed only if specified in Pre Qualifying Requirement (PQR) criteria, and in such a case the following shall be complied with:
- 23.1 Prime Bidder and Consortium Partner or partners are required to enter into a consortium agreement with a validity period of six months initially. In case the consortium is awarded the contract, then the Consortium Agreement between the Prime Bidder and Consortium Partner or partners shall be extended till contractual completion period including extension periods if any applicable.
- 23.2 'Stand alone' bidder cannot become a **'Prime Bidder' or a 'Consortium bidder' or 'Technical Tie up bidder' in a consortium (or Technical Tie up) bidding**. Prime bidder shall neither be a consortium partner to other prime bidder nor take any other consortium partners. However, consortium partner may enter into consortium agreement with other prime bidders. In case of non compliance, consortium bids of such Prime bidders will be rejected.
- 23.3 Number of partners for a consortium Bidding (or Technical Tie up) shall be as specified in the PQR
- 23.4 Prime Bidder shall be as specified in the Pre Qualification Requirement, else the bidder who has the major share of work
- 23.5 In order to be qualified for the tender, Prime Bidder and Consortium partner or partners shall satisfy (i) the Technical 'Pre Qualifying Requirements' specified for the respective package, (ii) "Assessment of Capacity of Bidder" as specified in clause 9.0
- 23.6 Prime Bidder shall comply with additional 'Technical' criteria of PQR as defined in 'Explanatory Notes for the PQR'
- 23.7 Prime Bidder shall comply with all other Pre Qualifying criteria for the Tender unless otherwise specified
- 23.8 In case customer approval is required, then Prime Bidder and Consortium Partner or partners shall have to be individually approved by Customer for being considered for the tender.
- 23.9 Prime Bidder shall be responsible for the overall execution of the contract
- 23.10 In case of award of job, Performance shall be evaluated for Prime Bidder and Consortium Partner or partners for their respective scope of work(s) as per prescribed formats
- 23.11 In case the Consortium partner or partners back out, their SDs shall be encashed by BHEL. In such a case, other consortium partner or partners meeting the PQR have to be engaged by the Prime Bidder, and if not, the respective work will be withdrawn and executed on risk and cost basis of the Prime Bidder. The new consortium partner or partners shall submit fresh SDs as applicable.
- 23.12 In case the prime Bidder withdraws, the whole contract shall be considered cancelled and short closed.
- 23.13 After execution of work, the work experience shall be assigned to the Prime Bidder and the consortium partner or partners for their respective scope of work. After successful execution of two similar works with the same consortium partner or partners under direct orders of BHEL, the Prime Bidder shall be eligible for becoming a 'stand alone' bidder for similar works, subject to certification from BHEL about the active involvement of the Prime Bidder for satisfactory execution of the works.

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 16 of 54

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- 23.14 The consortium partner shall submit SD equivalent to 2% of the total contract value in addition to the SD to be submitted by the prime Bidder for the total contract value. In case there are two consortium partners, then each 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.
- 23.15 In case of a Technical Tie up, all the clauses applicable for the Consortium partner shall be applicable for the Technical Tie up partner also
- 24.0 The bidder shall submit 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 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

for BHARAT HEAVY ELECTRICALS LTD

AGM/Purchase

Enclosure

01. Annexure-1: Pre Qualifying criteria.
02. Annexure-2: Check List .
03. Annexure-3: Important Infor
04. Other Tender documents as per this NIT.

ANNEXURE - 1

PRE QUALIFYING REQUIREMENTS

JOB	CONSTRUCTION OF MISC. CIVIL WORKS AND REPAIRS / RENOVATION OF EXISTING PLANT ROADS AND DRAINS INCLUDING ALL ASSOCIATED FINISHING & ARCHITECTURAL WORKS AT 1X350MW CCPP, GUJARAT STATE ELECTRICITY CORPORATION LIMITED (GSECL) HAZIRA - GUJARAT.
TENDER NO	BHE/PW/PURHZGG-CVL/1122

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of qualifying criteria	Page no of supporting document. Bidder must fill up this column as per applicability
A	Submission of Integrity Pact duly signed (if applicable)	NOT APPLICABLE	
B	<p><u>Technical</u></p> <p>Bidder must have successfully completed execution of WBM Road Works and execution of civil works in the last seven years as on latest date of offer submission as below.</p> <p>i). One work not less than value of Rs 316 Lakhs.</p> <p style="text-align: center;">OR</p> <p>ii). Two works each of not less than value of Rs 198 Lakhs</p> <p style="text-align: center;">OR</p> <p>iii). Three works each of not less than value of Rs 158 Lakhs.</p>	APPLICABLE	
C-1	<p><u>Financial Turnover</u></p> <p>Bidders must have achieved an average annual financial turnover (Audited) of Rs 119 Lakhs or more over last three Financial Years (FY) i.e. 2009-2010, 2010-2011, 2011-12 .</p>	APPLICABLE	

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 18 of 54

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	APPLICABLE	
C-3	PROFIT Bidder must have earned cash profit in any one of the three Financial Years as applicable in the last three Financial Years defined in 'C-1' above based on latest Audited Accounts.	APPLICABLE	
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) Note: Names of bidders (including consortium/Technical Tie up partners in case consortium bidding is permitted) who stand qualified after compliance of criteria A to D shall be forwarded to customer for their approval.	Not APPLICABLE	
F	Price Bid Opening Note: Price Bids of only those bidders shall be opened who stand qualified after compliance of criteria A to E	APPLICABLE	BY BHEL
F	Consortium criteria (if applicable)	NOT APPLICABLE	

Explanatory Notes for the PQR (unless otherwise specified in the PQR):

1. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as indicated against C-1 above along with all annexures
2. 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 i.e total divided by three.
3. C-2:-NETWORTH : Shall be calculated based on the latest Audited Accounts as furnished for C-1 above. Net worth = Paid up share capital + Reserves. (Net worth is required to be evaluated in case of companies)
4. C-3:- PROFIT : shall be NET profit (PAT + Non cash expenditure viz depreciation) earned during any one of the three financial years as in C-1 above
5. 'Additional' Criteria in respect of 'Technical' criteria of PQR (as in 'B' above) for Civil, Electrical, CI, unless otherwise specified :
 1. Bidder should have executed similar work of any one of the following:
 - a. One (1) work of value not less than Rs XXX
OR
 - b. Two (2) works of not less than Rs YYY
OR
 - c. Three (3) works of not less than Rs ZZZ
(Value XXX, YYY, ZZZ shall be as indicated by BHEL)
 2. 'Similar' work for criteria 5 above means
 - a. Civil or Structures or Civil & Structures or Chimney respectively as applicable to the tendered scope in respect of 'CIVIL' Works
 - b. Electrical works in respect of 'ELECTRICAL'

<p>c. CI works in respect of 'CI' Works d. Material Handling and/or Management works in respect of 'MM' works</p> <p>6. Time period for achievement of the 'Technical' criteria of PQR (as in 'B' above) will be the last 7 years ending on the 'latest date' of Bid submission</p> <p>7. 'EXECUTED' means the Vendor should have achieved the criteria specified in the Technical criteria of PQR (as in 'B' above) even if the Contract has not been completed or closed</p> <p>8. Unless otherwise specified, for the purpose of 'Technical' criteria of PQR (as in 'B' above), the word 'EXECUTED' means:</p> <ol style="list-style-type: none">1. "Completion of RCC Shell and liner (steel or brick as per tendered scope) up to the HEIGHT specified using slip form" in case of RCC Chimney.2. Achievement of physical Quantities as per respective PQRs in respect of Civil & Structures and Piling Works
--

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.

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 20 of 54

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: Please tick (✓) whichever applicable:- 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	YES/NO
8	Copy of PAN Card	Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable	YES/NO
10	Integrity Pact	Not Applicable	YES/NO
11	Declaration by Authorised Signatory	Applicable	YES/NO
12	No Deviation Certificate	Applicable	YES/NO
13	Declaration confirming knowledge about Site Conditions	Applicable	YES/NO
14	Declaration for relation in BHEL	Applicable	YES/NO
15	Non Disclosure Certificate	Applicable	YES/NO
16	Bank Account Details for E-Payment	Applicable	YES/NO
17	Capacity Evaluation of Bidder for current Tender	Applicable	YES/NO

**BHEL PSWR
Notice Inviting Tender**

Tender Specification No: BHE/PW/PUR/ HZGG-CVL/1122

Page 21 of 54

18	Tie Ups/Consortium Agreement are submitted as per format	Not Applicable	YES/NO
19	Power of Attorney for Submission of Tender/Signing Contract Agreement	Applicable	YES/NO
20	Analysis of Unit rates	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 :
(With Name, Designation and Company seal)

AUTHORISED SIGNATORY

ANNEXURE 3

IMPORTANT INFORMATION

The offers of the bidders who are on the banned list as also the offer of the bidders, who engage the services of the banned firms, shall be rejected. The list of banned firms is available on BHEL web site (www.bhel.com ---> Tender Notification -> List of Banned Firms)

Rev 00
6th
JULY

TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



TECHNICAL CONDITIONS OF CONTRACT (TCC) CONTENTS

Sl. No.	DESCRIPTION	Chapter	No. OF PAGES
Volume-IA	Part-I: Contract specific details		
1	Project Information	Chapter-I	2
2	Scope of Works and Technical Specifications	Chapter-II	9
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-III	8
4	T&Ps and MMEs to be deployed by Contractor	Chapter-IV	3
5	T&Ps and MMEs to be deployed by BHEL on sharing basis	Chapter-V	1
6	Time Schedule	Chapter-VI	1
7	Terms of Payment	Chapter-VII	2
8	Taxes and other Duties	Chapter-VIII	2
9	Tender Drawings	Chapter-IX	1

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - I: Project Information

1.0	PROJECT INFORMATION																																	
1.1	<p style="text-align: center;"><u>INTRODUCTION</u></p> <p>350 MW Hazira CCPP is being set up by Gujarat State Energy Generation Company Limited in Hazira near Surat District in the state of Gujarat.</p> <p>The Bidder shall acquaint himself by a visit to the site, if felt necessary, with the conditions prevailing at site before submission of the bid. The information given herein under is 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.</p> <p style="text-align: center;"><u>APPROACH TO SITE</u></p> <p><u>Location</u> : In Surat District of Gujarat State, Latitude 21° 8' N / Longitude 72° 38' E The site is an extension of Hazira Plant of GSEG in Surat District of State of Gujarat.</p> <p><u>Access by Road</u>: Hazira is connected by road from Surat. Surat is connected by National Highway No. 8</p> <p><u>Nearest Railway Station</u>: Surat</p> <p><u>Nearest Airport</u> : Surat</p> <p><u>Nearest Seaport</u>: Hazira</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">1. <u>Owner</u></td> <td style="width: 60%;">Gujarat State Energy Generation Company Limited</td> <td style="width: 25%;"></td> </tr> <tr> <td>2. <u>Project Title</u></td> <td>350 MW Hazira CCPP</td> <td></td> </tr> <tr> <td>3. <u>Location</u></td> <td>Near Hazira Plant, Surat, Gujarat</td> <td></td> </tr> <tr> <td>4. <u>Nearest Railway Station</u> :</td> <td>Surat</td> <td></td> </tr> <tr> <td>5. <u>Ambient Air Temperature</u></td> <td></td> <td></td> </tr> <tr> <td style="padding-left: 20px;">a. Highest ever temperature recorded (Dry Bulb)</td> <td></td> <td style="text-align: right;">45.6 Deg.C</td> </tr> <tr> <td style="padding-left: 20px;">b. Lowest ever temperature recorded (Dry Bulb)</td> <td></td> <td style="text-align: right;">4.4 Deg.C</td> </tr> <tr> <td style="padding-left: 20px;">c. Maximum Daily Average (Dry Bulb)</td> <td></td> <td style="text-align: right;">32 Deg C</td> </tr> <tr> <td style="padding-left: 20px;">d. Average Mean temperature (Dry Bulb)</td> <td></td> <td style="text-align: right;">32 deg C</td> </tr> <tr> <td style="padding-left: 20px;">e. Average Mean temperature (Wet Bulb)</td> <td></td> <td style="text-align: right;">27 deg C</td> </tr> <tr> <td style="padding-left: 20px;">f. Design Ambient for Electrical Equipment</td> <td></td> <td style="text-align: right;">50 deg C</td> </tr> </table>	1. <u>Owner</u>	Gujarat State Energy Generation Company Limited		2. <u>Project Title</u>	350 MW Hazira CCPP		3. <u>Location</u>	Near Hazira Plant, Surat, Gujarat		4. <u>Nearest Railway Station</u> :	Surat		5. <u>Ambient Air Temperature</u>			a. Highest ever temperature recorded (Dry Bulb)		45.6 Deg.C	b. Lowest ever temperature recorded (Dry Bulb)		4.4 Deg.C	c. Maximum Daily Average (Dry Bulb)		32 Deg C	d. Average Mean temperature (Dry Bulb)		32 deg C	e. Average Mean temperature (Wet Bulb)		27 deg C	f. Design Ambient for Electrical Equipment		50 deg C
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TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - I: Project Information

6. Relative Humidity

- a. Maximum 88.86%
- b. Minimum 33%
- c. Average 66%

7. Rainfall

- a. Annual Average - 1203 mm in the period June to October.

8. Wind Data

- a. 2.25 m/sec (Normal) & Maximum is 44 m/sec as per IS 875 Part III
- b. Wind pressure as per IS: 875 Part III

9. Seismic Zone - Zone III as per IS: 1893-2005 (Part – IV)

10. Fuel - Natural Gas/ Regassified Liquefied Natural Gas(RNLG)

11. Ambient Air Quality - The site is located opposite to Reliance Petrochemical Complex, which is on Hazira-Surat road. The site is adjacent to the existing 156.1 MW CCPP, where a colony also exists. This area is classified under semi-urban area. Tropical sea climate with petrochemical complex is within the radius of about 5 km.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

2.0.1 SCOPE OF WORK

a)

CONSTRUCTION OF:-

1. Civil, Structural and Architectural works for CO2 storage building
2. Fencing and ventilator work of H2 storage building
3. False flooring work in ETP area
4. Additional new foundations in STP area.
5. Cable trench, duct bank, pipe laying for air quality monitoring rooms and STP area.
6. Any other misc civil, Structure and architectural works as per drawing and instruction of BHEL

b)

REPAIRS / RENOVATION OF EXISTING PLANT ROADS AND DRAINS, REBUILDING OF BROKEN OLD RCC / BRICK DRAINS INCLUDING ALL ASSOCIATED FINISHING WORKS REQUIRED.

The detailed scope of work involves the following:-

7. Removals of overburden slush/mud from the notified area for repairing of roads and clean the surface to receive WBM layer as per standard specification.
8. Filling and wet compaction (with power roller) of ditches with stone chips mixed with murrum as binding materials.
9. Proving WBM as per requirement and instruction of BHEL Engineer.
10. Providing and placing black topping work (comprising of 75 mm thick bituminous Macadam + 25mm thick premix carpet followed by liquid seal coat).
11. Removal of slush, mud, earth from old damaged drains, breaking /dismantling of old RCC/brick drains and construction of new RCC/brick drains (in the area as shown in the drawing provided) and instruction of BHEL Engineer
12. Any other associated works required for successful completion of the above.

The identification of roads to be repaired shall be done jointly by contractor with BHEL Engineer before commencement of work.

The Scope of Works covers all civil works for the above areas including Supply of all Materials, Labour, Tools and Plants But **Excluding Supply Of Reinforcement (TMT reinforcement bars conforming to HCR-M GRADE FE 500, IS 1786) & structural steel which will be supplied by BHEL free of cost** as detailed elsewhere in the contract.

2.0.2 OTHER RELATED ACTIVITIES:

1. **Draw Construction Power & Water from Customer's given Point at one location inside the plant including all materials required for further distribution.**

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

2. **Taking delivery of reinforcement bars, structural steel and other free issued materials from BHEL stores/store yard including loading, transportation and unloading, stacking, preservation etc. at site.**

2.0.3 FIELD QUALITY ASSURANCE:

The contractor shall be responsible for day-to-day quality checks of concrete and other building materials during the progress of work. All quality records and log sheets shall be maintained as per the requirement of BHEL/BHEL's customer and as per field quality plan approved by BHEL/GPPCL. For this, contractor shall either establish his own field quality lab or have tie-up with approved lab by BHEL in/ outside of the plant.

2.0.4 RECONCILIATION OF STEEL ISSUED BY BHEL (FREE OF COST):

2.0.4.1 MATERIAL

- 1) **Steel like (structural, reinforcement bars) as specified in relevant BOQ shall be issued free of cost by BHEL** for use in the work covered in this contract from BHEL stores/store yard. The contractor shall collect these materials from BHEL stores/store yard at specified places at his own cost and store the same at the work site or in his stores as per standard norms. **Materials issued will be used only for construction of permanent works.**
- 2) BHEL reserves the right to recover from the contractor any loss arising out of damage/ theft or any other causes or during verification/stacking or at any time under the custody of the contractor.
- 3) The contractor shall take care of material issued by BHEL and shall protect the same from damage and weathering. Contractor shall construct suitable waterproof cement store for storing and stacking of cement **procured by the contractor**. Design & drawing required for storage of cement shall be prepared by the vendor and shall be approved by BHEL's site in-charge before taking up for the construction work.
- 4) The contractor shall in no case be entitled for any compensation on account of any delay in supply or non-supply thereof for all or any such materials. However in case of non-availability of any specific section(s) which delays the completion of work, such cases shall be recorded separately during the joint review meeting at site and the same shall be considered for time extension of contract.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

- 5) No material shall be issued to the contractor except as those indicated and mentioned above i.e. reinforcement steel as specified in relevant BOQ. Contractor will have to make his own arrangement at his own cost for procurement of any other materials except as mentioned above, as required for the works and of such quality as acceptable to BHEL.
- 6) The contractor shall maintain proper store account for all the BHEL issued materials and shall give **Three (03) copies of monthly-computerized reconciliation statement** of such account showing total receipt, consumption and balance at site to the BHEL. BHEL Engineer's certification for the reconciliation of steel shall be final. The detailed reconciliation (dia. Wise or as required) shall be done **at least once in six months (06) or before submission of final bill whichever comes earlier.**
- 7) Contractor shall also carry out in complete association with BHEL, the material management functions and execution like day-to-day update of materials, issued to contractor, accounting for surplus/scrap material returned etc. These functions shall also be carried out through computerized system utilizing suitable software. Contractor shall engage experienced software personnel to associate on dedicated basis for efficient discharge of the same in time.
- 8) The contractor shall solely be responsible for the safety & security of material after it is handed over and issued to contractor by the BHEL.
- 9) BHEL issued materials, shall not be under any circumstances whatsoever, and shall be taken out of the project site unless otherwise permitted by BHEL for outside job.

2.0.5 FOLLOW UP & HANDLING OF MATERIALS ISSUED BY BHEL:

- 1) BHEL will place Purchase Order (P.O) on the manufactures for procurement of reinforcement bars, etc as specified in BOQ and successful bidders will provide all necessary supports for follow up/chase up with manufactures/supplies/vendors for speedy delivery of materials at site including posting a concerned person(s) for short duration at manufactures factory within their quoted rates.
- 2) Steel (like Structural, Reinforcement, etc.) as specified in relevant BOQ shall be issued free of cost by BHEL for use in the work covered in this contract from BHEL stores/storage yard. As per the approved drawings contractor shall furnish their section wise requirement well in advance.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II: Scope of Works and Technical Specifications

- 3) Materials shall be issued by BHEL based on the weight basis/linear measurements & sectional weight and payment shall also be done in similar way. However on specific request of the contractor **“as a special case to expedite the job”** the consignment received at BHEL stores can directly be diverted to the work site following issuance procedure of BHEL. Such direct issues shall be as per the Challan/document/LR received with the consignment. Contractor at their cost in such cases shall do unloading of materials from lorry.
- 4) It would be the responsibility of the contractor to keep in constant contact with BHEL site to find out the delivery status, arrival of the consignments and arrange for escort to accompany the truck/ trailer for transportation of above materials by BHEL’s supplier, if necessary.
- 5) All materials issued by BHEL shall be stacked, stored above ground level **by use of concrete or wooden sleepers. No materials shall remain on ground at any time.** All concrete or wooden sleepers required for stacking the materials shall be arranged by contractor (successful bidder of this package) at his own cost within the quoted rates. All other equipments like winches, D-Shackles, slings of various sizes, max puller, pulley blocks, jacks, trucks, trailers etc. required for such handling of steel from BHEL stores/storage yard etc. shall be arranged by contractor within quoted/accepted rates.
- 6) The contractor shall take delivery of the materials from the designated place within the project premises at his own cost and store the same at his stores as per standard norms. Open land for such purposes shall be provided by BHEL on free of cost basis. The bidder shall make complete arrangement of necessary security personnel’s to safeguard all such materials in his custody. Materials issued will be used only for construction of permanent works. The contractor shall take care of material issued by BHEL and shall protect the same from theft, damage and weathering. Excessive rusting of steel in custody of agency/contractor must be avoided. **In case, due to any cause attributable to the contractor, such rusting of steel occur rendering the same unusable, then such quantity of steel shall be recovered from the interim payment at the penal rate specified in the tender.**

2.0.6 ISSUE OF BHEL MATERIALS

Issue of steel: -The steel shall be issued to the contractor on the following basis:

(A)	Structural Steel, MS Flats , MS Plates etc	Weight Basis (unit – MT) / Linear Measurement (section wt. As per
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TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

		relevant IS code)
(B)	Reinforcement Steel	Weighment basis (unit – MT)/ linear measurement

- ❖ All the steel (structural, Reinforcement, etc) issued by the BHEL shall be properly accounted for. The total quantity of steel required for the work will be calculated from the approved bar bending schedule, fabrication drawings, approved laps, chairs and lugs. The measurement for payment as well as for accounting shall be based on linear measurements and the sectional weight as indicated in the following IS specifications.

Sl. No.	IS code (s)	Description
1	IS: 808-1964	beams, channels and angles
2	IS: 1730-1961	Plates, Sheets And Strips
3	IS:1732-1971/ IS-1786	Rounds including deformed high yield strength bars/ TMT rebar.

- a) In case any such sectional weights are not available in the above documents, the manufacturer recommendation shall be binding. The steel issued to the contractor shall be mainly in standard length and sections as received from the supplier.
- b) However, the contractor shall be bound to accept the steel in length as available in the project stores. No claims for extra payment because of issue of non-standard length will be entertained. In case MS flats as required in the fabrication of structures are not available, the contractor shall cut such width out of the available MS plates to make flats at no extra cost till such material is available and procured by BHEL.
- c) The contractor shall satisfy himself of the quality and quantity of the materials at the time of taking delivery from BHEL stores/storage yard. No claims whatsoever will be entertained by BHEL because of quality or quantity after the contractor takes the materials from BHEL stores/storage yard.
- d) The contractor shall submit to the engineer, a statement indicating estimated quantity of steel required during a quarter at least two months in advance of the quarter. In addition, the contractor shall also furnish the **estimated requirement of steel during a month by the third week of the previous month indicating his requirement.** Following shall be limit for the maximum quantity of BHEL issue

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

materials that would be with the contractor at any point of time when work is in progress (excluding what has already been incorporated in the works).

Sl. No.	Issue of materials	Max. Qty in contractor's store.
1	Reinforcement steel	Requirement of one month
2	Structural steel	Requirement of one month

- **Bidders to ensure that no lamination materials are taken over by them from BHEL stores. Fabrication wastage, if any due to above, shall not be compensated by BHEL.**
- **Bidder to note that all fasteners like MS/HT/HSFG bolts/Nuts, Lock Nuts, Washers etc shall be supplied by the bidder as per relevant items of BOQ.**
- **Bidder to note that cement and steel required for their/bidder's enabling job like store/site office etc shall be arranged at his own cost.**

2.0.7 RETURN OF MATERIALS

2.0.7.1 RETURN OF STEEL:-

- a. **All surplus steel and all wastage materials will be taken back on weight basis. However linear measurements shall also be acceptable for unused / full size materials.**
- b. **Surplus, unused and un-tampered steel shall be sorted in section-wise and returned separately for a place directed by BHEL/engineer within the project area, return of such materials will not be entitled to any handling and incidental charges.**
- c. **All wastage / scrap (including melting scrap, wastage, and unusable scrap) shall be returned item wise to the stores and a receipt obtained for material accounting purposes. Return of such material will not be entitled to any additional cost due to handling and transportation and incidental charge.**
- d. **All scrap for reinforcement (cut pieces) shall be returned separately.**
- e. **All scrap for structural steel including melting scrap shall be**

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II: Scope of Works and Technical Specifications

returned separately.

2.0.8 STEEL CONSUMPTION AND WASTAGE:-

Reinforcement steel, Structural steel and GI flats consumption and wastage.

- 1) The theoretical consumption of various sections and/or diameter of reinforcement and rails, GI flats shall be based on approved construction drawing and bar bending schedule. Weight shall be calculated considering/based on linear measurements and the sectional weights as per Indian standards. No extra cost shall be payable to the contractor for any deviation in weights for the different procedures adopted for issue and calculation of the **theoretical consumption including rolling tolerances**. However if rolling margins exceeds the limit stipulated in IS codes, the same shall be considered for reconciliation purpose.

A) Actual consumption = Issued – Surplus (unused).

B) Surplus = Un-tampered and unused qty. of steel returned by the contractor to BHEL store along-with relevant documents.

C) Wastage = Actual consumption – Theoretical consumption.

❖ **Wastage of reinforcement steel**

Allowable wastage: - plus five percentage (+5%) of the theoretical consumption shall be considered as allowable wastage for both reinforcement steel as well as flats. Wastage is further classified as cut pieces/serviceable scrap (pieces of reinforcement steel/GI strip. Both serviceable & unserviceable shall be accounted separately.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II: Scope of Works and Technical Specifications

Sl. No.	Reinforcement steel	Basis of issue & Penal recovery
R-1	Theoretical consumption (without considering wastage and scrap or loss)	Free
R-2	Wastage limited to plus five percent (+5%) of aforesaid theoretical Consumption (R-1) towards allowable Wastage (cut pieces plus scrap to be Returned to BHEL).	Free
R-3	Wastage beyond five percent (+5%) of the theoretical consumption above (R-1). (Cut pieces plus scrap to be returned to BHEL).	Penal Rate

❖ Wastage of structural steel:

Allowable wastage: - plus five percentage (+5%) of the theoretical consumption shall be considered as allowable wastage for both structural steel as well as ms plates. Wastage as further classified as cut pieces/serviceable scrap (pieces of rolled section lengths 3 m and above, ms plate 1.0 m² and above with minimum width 200 mm) and scrap/unserviceable (less than above) measured as per actual weightment basis. Invisible wastage (loss of materials due to gas cutting, straightening of edges etc) shall be limited to 0.5% (zero point five percent) of theoretical consumption and shall be considered for reconciliation purposes only. But this invisible wastage shall be considered to be included in allowable wastage (i.e. Five percent).

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II: Scope of Works and Technical Specifications

Sl. No.	Structural Steel & MS plates, Rolled section, plates & SS liner etc	Basis of issue & Penal recovery
S-1	Theoretical consumption (without considering wastage and scrap or loss)	Free
S-2	Wastage limited to plus five percent (+5%) of aforesaid theoretical Consumption (S-1) towards allowable Wastage (cut pieces plus scrap to be Returned to BHEL).	Free
S-3	Wastage beyond five percent (+5%) of the theoretical consumption above (S-1). (Cut pieces plus scrap to be returned to BHEL).	Penal Rate

2.0.9 RECONCILIATION OF BHEL ISSUED MATERIALS: -

- 1) The contractor shall submit a reconciliation statement of steel issued to them with each RA bill indicating total issue, actual consumption and balance either section wise or overall tonnage. BHEL engineer's certification will be final on this matter.
- 2) At the time of submission of bill(s), the contractor shall properly account for the material issued to him as specified herein to the satisfaction of BHEL certifying that the balance materials are available with contractor's custody at site.
- 3) At the time of submission of bills by the contractor, if it is noticed by BHEL that the wastage is high and calls recovery at the penal rate, then BHEL will proceed for recovery for the excess wastage as per penal recovery rates as specified.
- 4) The approved drawings/bar bending schedules are to be considered for the purpose of reconciliation of materials.
- 5) Detail reconciliation statement shall be done as per clause no. 2.0.4.1 point no. (6).

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter - II: Scope of Works and Technical Specifications

2.0.10 RECOVERY OF MATERIAL:-

- **If wastage exceeds the specified limit, the recovery of excess wastage shall be made from monthly r/a bill at the penal rate.**

Penal Rate of Materials

Sl. No	Description	UOM	Penal Rate (in Rs)
A	Reinforcement steel etc.	MT	55, 000/-
B	Structural steel		
1	Chqd. Plates/MS plates	MT	60, 000/-
2	Flats/ Beams/ Channel/ Angles etc. (rolled sections).	MT	60, 000/-

2.0.11 PROCUREMENT OF MATERIALS BY SUCCESSFUL CONTRACTORS AND TESTING:

Material required for the entire job (other than issued by BHEL as explained above) like cement, sand, aggregates, painting & finishing material and all other materials required for the completion of entire scopes, bolts & nuts, HSFG/HT bolts have to be arranged by the contractor, excepting those specifically indicated as BHEL scope of supply. BHEL reserves the right to reject any material not found satisfactory.

Contractor shall produce manufacturer's test certificate (MTC) for cement for every batch of manufacturing along with each consignment brought to the site. Cement shall be procured from fresh stock only. Apart from the above, it shall be the responsibility of contractor to get the testing of cement, or any other materials procured from outside laboratory approved by **BHEL/ HAZIRA** to ascertain the quality if insisted by BHEL/BHEL'S customer.

Rate quoted shall be inclusive of all such contingencies and no additional payment shall be made on this account. For this purpose, sample shall be collected at site in presence of BHEL/BHEL customer's representative. The variation in price of all the plant materials supplied by the contractor shall be subject to the relevant price variation clause of "General Condition of Contract".

2.0.12 NOTE:

The detailed technical specifications (Section – D) covering the above scope of work is being issued as a separate book under the title "Technical Specifications".

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter - II: Scope of Works and Technical Specifications

Bidders are requested to specifically note the following:

Successful bidder has to undergo for joint measurements in presence of BHEL representatives at site before taking over the site for construction.

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. Bidders may fix up their site visit in consultation with construction manager BHEL site office HAZIRA. Name, address & contact point of site is as below:

SHRI PARESH GUPTA (Construction Manager)
BHEL SITE OFFICE – 1X350 MW CCPP HAZIRA
E-MAIL ID: pgupta@bhelpswr.co.in
Mob. No. - 09574533321

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – III : Facilities in the scope of Contractor/BHEL

Sl. No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.1	ESTABLISHMENT			
3.1.1	FOR CONSTRUCTION PURPOSE:			
a	Open space for office (as per availability)	Yes		Location will be finalized after joint survey with owner
b	Open space for storage (as per availability)	Yes		Location will be finalized after joint survey with owner
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	Fire fighting equipments like buckets, extinguishers etc		Yes	
g	Fencing of storage area, office, canteen etc of the bidder		Yes	
3.1.2	FOR LIVING PURPOSES OF THE BIDDER			

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – III : Facilities in the scope of Contractor/BHEL

Sl. No	Description PART I	Scope / to be taken care by		Remarks
		BHEL	Bidder	
a	Open space for labor colony (as per availability)		Yes	Contractor has to make his own arrangements for space, shelter and transportation of labors as per their requirement.
b	Labor Colony with internal roads, sanitation, complying with statutory requirements		Yes	
3.2.0	ELECTRICITY			
3.2.1	Electricity for construction purposes 3 Phase 415/440 V (To be specified whether chargeable or free)			Free. In case of non-availability of power due to any reason from customer point, contractor shall have to arrange the same at his own expenses through DG set.
a	Single point source	Yes		At a distance of 500m from site (distance is only estimated, It may vary up to an extent depending on site condition)
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 – III : Facilities in the scope of Contractor/BHEL

Sl. No	Description PART I	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.2.2	Electricity for the office, stores, canteen etc of the bidder (to be specified whether chargeable or free)			Free. In case of non-availability of power due to any reason from customer point, contractor shall have to arrange the same at his own expenses through DG set.
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	
3.2.3	Electricity for living accommodation of the bidder's staff, engineers, supervisors etc.		Yes	Contractor has to make his own arrangement.
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	
3.3.0	WATER SUPPLY			

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – III : Facilities in the scope of Contractor/BHEL

Sl. No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.3.1	For construction purposes: (to be specified whether chargeable or free)			FREE
a	Making the water available at single point	Yes		At a distance of 500M from site Existing Reservoir. In case of non-availability of construction water due to any reason from customer point, contractor shall have to arrange construction water at his own expenses.
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.2	<u>Water supply for bidder's office, stores, canteen etc</u>			
a	Making the water available at single point	Yes		Free
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	At a distance of 500 M from site. In case of non-availability of construction water due to any reason from customer point, contractor shall have to arrange construction water at his own expenses.
3.3.3	<u>Water supply for Living Purpose</u>		Yes	Contractor has to make his own arrangement.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – III : Facilities in the scope of Contractor/BHEL

Sl. No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	PART I			
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	
3.4.0	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	
3.5.0	COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER			
a	Telephone, fax, internet, intranet, e-mail etc.		Yes	

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – III : Facilities in the scope of Contractor/BHEL

Sl. No	Description PART I	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.6.0	COMPRESSED AIR wherever required for the work		Yes	
3.7.0	Demobilization of all the above facilities		YES	
3.8.0	TRANSPORTATION			
a	For site personnel of the bidder		Yes	
b	For bidder's equipments and consumables (T&P, Consumables etc)		Yes	

Sl. No	Description PART II	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	3.9.0 ERECTION FACILITIES			
3.9.1	Engineering works for construction:			NOT APPLICABLE
a	Providing the erection/constructions drawings for all the equipments covered under this scope	Yes		For Details PI refer Chapter-IX-
b	Drawings for construction methods	Yes	Yes	In consultation with BHEL

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – III : Facilities in the scope of Contractor/BHEL

Sl. No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	PART II 3.9.0 ERECTION FACILITIES			
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/construction 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

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – III : Facilities in the scope of Contractor/BHEL

Sl. No	Description	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	PART II 3.9.0 ERECTION FACILITIES			
i	Periodic visit of the senior official of the bidder to site to review the progress so that works are 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	
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

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – IV : T&Ps AND MME TO BE DEPLOYED BY CONTRACTOR

A: TOOL & PLANTS

SN	DESCRIPTION																																																																											
1	<p style="text-align: center;">(a) T & Ps FOR CIVIL WORKS</p> <table border="1"> <tr> <td>1.</td> <td>Concrete mixer machine with weigh batching system</td> <td>02 Nos.</td> </tr> <tr> <td>2.</td> <td>Vibrators</td> <td>07 nos.</td> </tr> <tr> <td>3.</td> <td>Air Compressor</td> <td>01Nos.</td> </tr> <tr> <td>4.</td> <td>Jack Hammer</td> <td>02 Nos</td> </tr> <tr> <td>5.</td> <td>Self priming Dewatering pump of various capacity (Diesel/Electric) From 3 HP to 12 HP</td> <td>05Nos.</td> </tr> <tr> <td>6.</td> <td>Curing / dewatering pump – 1.5 / 2 HP</td> <td>02Nos.</td> </tr> <tr> <td>7.</td> <td>JCB</td> <td>02Nos..</td> </tr> <tr> <td>8.</td> <td>Ply Shuttering board with adequate supporting structure – 6000 Sqm. (Old steel shuttering plates will not be allowed).</td> <td>As per requirement.</td> </tr> <tr> <td>9.</td> <td>Pipe Scaffolding, Clamps / Swivel Couplers (One/Two Way), Props, Jacks, Screw Heads, MS Pipes, Wooden Battens, Planks, Bullies, H Frames, Tie Rods with Nuts, Adjustable Achro Span (Considering Individual Areas)</td> <td>As per requirement.</td> </tr> <tr> <td>10.</td> <td>Dumper</td> <td>05Nos.</td> </tr> <tr> <td>11.</td> <td>Reinforcement bending machine</td> <td>01Nos.</td> </tr> <tr> <td>12.</td> <td>Reinforcement cutting machine</td> <td>01Nos.</td> </tr> <tr> <td>13.</td> <td>MS scaffolding pipe with matching Couplers</td> <td>As per requirement.</td> </tr> <tr> <td>14.</td> <td>Power driven earth rammer</td> <td>01No.</td> </tr> <tr> <td>15.</td> <td>Vibromax (earth compacter)</td> <td>02Nos.</td> </tr> <tr> <td>16.</td> <td>Total Station / Theodolite</td> <td>01Nos.</td> </tr> <tr> <td>17.</td> <td>Auto level & staff</td> <td>02Nos.</td> </tr> <tr> <td>18.</td> <td>Water Tanker</td> <td>02No.</td> </tr> <tr> <td>19.</td> <td>POLES, CABLES, HALOGENS,BULBS ETC FOR AREA ILLUMINATION</td> <td>As per requirement</td> </tr> <tr> <td>20.</td> <td>COMPUTER(window Xp) with printing & CD writing facility</td> <td>2sets</td> </tr> <tr> <td>21.</td> <td>COMMUNICATION FACILITIES – LANDLINE, WLL, MOBILE, FAX ETC.</td> <td>As per requirement</td> </tr> <tr> <td>22.</td> <td>Power Roller 8 to 10 MT capacity</td> <td>01 No.</td> </tr> <tr> <td>23.</td> <td>Road Pavers</td> <td>1No.</td> </tr> <tr> <td>24.</td> <td>Bitumen Hot mix plant of adequate capacity (Optional)</td> <td>1 No.</td> </tr> <tr> <td>25.</td> <td>Hand operated electronic concrete breaker</td> <td>03 Nos.</td> </tr> </table>	1.	Concrete mixer machine with weigh batching system	02 Nos.	2.	Vibrators	07 nos.	3.	Air Compressor	01Nos.	4.	Jack Hammer	02 Nos	5.	Self priming Dewatering pump of various capacity (Diesel/Electric) From 3 HP to 12 HP	05Nos.	6.	Curing / dewatering pump – 1.5 / 2 HP	02Nos.	7.	JCB	02Nos..	8.	Ply Shuttering board with adequate supporting structure – 6000 Sqm. (Old steel shuttering plates will not be allowed).	As per requirement.	9.	Pipe Scaffolding, Clamps / Swivel Couplers (One/Two Way), Props, Jacks, Screw Heads, MS Pipes, Wooden Battens, Planks, Bullies, H Frames, Tie Rods with Nuts, Adjustable Achro Span (Considering Individual Areas)	As per requirement.	10.	Dumper	05Nos.	11.	Reinforcement bending machine	01Nos.	12.	Reinforcement cutting machine	01Nos.	13.	MS scaffolding pipe with matching Couplers	As per requirement.	14.	Power driven earth rammer	01No.	15.	Vibromax (earth compacter)	02Nos.	16.	Total Station / Theodolite	01Nos.	17.	Auto level & staff	02Nos.	18.	Water Tanker	02No.	19.	POLES, CABLES, HALOGENS,BULBS ETC FOR AREA ILLUMINATION	As per requirement	20.	COMPUTER(window Xp) with printing & CD writing facility	2sets	21.	COMMUNICATION FACILITIES – LANDLINE, WLL, MOBILE, FAX ETC.	As per requirement	22.	Power Roller 8 to 10 MT capacity	01 No.	23.	Road Pavers	1No.	24.	Bitumen Hot mix plant of adequate capacity (Optional)	1 No.	25.	Hand operated electronic concrete breaker	03 Nos.
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BHEL-PSWR

Tender Specification No: BHE/PW/PUR/HZGG-CVL/1122

Technical Conditions of Contract – Volume I A (Part I : Contract Specific Details)

Page 46 of 54

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – IV : T&Ps AND MME TO BE DEPLOYED BY CONTRACTOR

SN	DESCRIPTION
	<p style="text-align: center;">(b) CIVIL WORKS - FIELD QUALITY LAB EQUIPMENTS –</p> <p>(a) Automatic Compression Testing Machine(2000 KN) – 1no (b) Cube Moulds(150mm size) – 12 nos (c) Slump Cone With Tamping Rod – 01no (d) Sieves Of Different Sizes For Fine & Coarse Aggregate Testing – 1 set (e) Core Cutter Test Apparatus – 03sets (f) Oven (capacity 120ltr, range – 250c) – 1no (g) Moisture container(steel/aluminum) – 03nos (h) Rapid Moisture Meter – 02nos (i) Vicat Apparatus With Plungers For Cement Testing – 1set (j) Cube Moulds (70mm size) – 06nos (k) Physical Balance – 01no. (l) Automatic Vibration M/C – 01 no. (m) Jars – 4 nos. (n) Thermometer – 1 No.</p> <p>Bidder must submit T&P deployment plan inclusive of above T&Ps. along with the tender. Bidders shall be allowed to bring bituminous concrete from outside source with prior approval of BHEL.</p>

B: MEASURING AND MONITORING DEVICES (MMD):

AS PER REQUIREMENT TO BE FINALIZED AT SITE.

NOTE:

THIS ABOVE LIST IS ONLY INDICATIVE AND NEITHER EXHAUSTIVE NOR LIMITING. QUANTITIES INDICATED ABOVE ARE ONLY THE MINIMUM REQUIRED. CONTRACTOR SHALL DEPLOY ALL NECESSARY T&P TO MEET THE SCHEDULES & AS PRESCRIBED BY BHEL ENGINEER AND REQUIRED FOR COMPLETION OF WORK.

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – V: T&Ps and MMEs to be deployed by BHEL on sharing
basis

BHEL WILL NOT PROVIDE ANY T & P's FOR THIS WORK

TECHNICAL CONDITIONS OF CONTRACT (TCC)
Chapter – VI: Time Schedule

6.1 TIME SCHEDULE & MOBILIZATION

6.1.1 INITIAL MOBILIZATION AND TENTATIVE SCHEDULE

Contractor shall reach site, make his site establishment and be ready to commence the work **within two weeks** from the date of fax Letter of Intent or as per directions of Construction Manager/ Project Manager of BHEL.

The contractor has to subsequently augment his resources in such a manner that the entire works are completed within the contract period of **8 (Eight)** months in a manner required by BHEL to match with the project schedule.

THE OVERALL CONTRACT PERIOD SHALL BE 8 (EIGHT) MONTHS.

6.1.2

In order to meet above schedule and other intermediate targets/activities as set by BHEL Engineer In charge at site, to meet customer requirements/project schedule, contractor shall arrange all necessary resources and work force in consultation with BHEL engineer at site to undertake works concurrently in all possible fronts as made available to contractor.

Contractor shall note that individual milestones as above shall be achieved as per schedule furnished above. The date of start of first activity shall be reckoned as the start of contract period for this purpose.

The contractor shall reach site and establish his site office and mobilize necessary resources well in advance of actual commencement of the contract time schedule as per directions of BHEL engineer.

DATE OF START OF WORK SHALL BE THE DATE ON WHICH FIRST ACTIVITY IS STARTED.

The contractor shall complete all the work in the scope of this contract within the contract period.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter – VII: Terms of Payment

7.00 TERMS OF PAYMENT

7.0.1

The contractor shall submit his monthly on account bills with all the details required by BHEL on specified date every month covering progress of work in all respects and areas from the 25th of previous calendar month to 24th of the current month.

7.0.2

General conditions of contract shall be referred to as regards mode of payment, and measurement of the work completed.

7.0.3

Release of payment in each running bill will be restricted to **95% of the value of work admitted**, as per the percentage break-up for the stage of work completion stipulated vide clauses hereinafter.

The 5% retention amount shall be released as per GCC clause no. 2.22. The workmanship guarantee period for this contract shall be **12 months from the date of completion** of entire work as certified by BHEL.

7.0.4

The payment for running bills will normally be released within around 30 days of submission of running bill with measurement sheets. Contractor shall make his own arrangement for making payment of impending labour wages and other dues in the meanwhile.

7.0.5

BHEL will release payment through **Electronic Fund Transfer (EFT)/RTGS**. In order to implement this system, the following details are to be furnished by the contractor pertaining to his bank accounts where proceeds will be transferred through **BHEL's banker**:

Name of the Company

Name of Bank

Name of Bank Branch

City/Place

Account Number

Account type

IFSC code of the Bank Branch

MICR Code of the Bank Branch

BHEL May Also Choose To Release Payment By Other Alternative Modes As Suitable.

7.0.7 EXTRA/ADDITIONAL ITEMS OF WORK:-

As Per GCC.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII: Taxes and Other Duties

8.0 TAXES, DUTIES, LEVIES

8.1. For All types of works

8.1.1

The contractor shall pay all (save the specific exclusions as enumerated in this contract) taxes, fees, license charges, deposits, duties, tools, royalty, commissions or other charges which may be levied on the input goods & services consumed and output goods & services delivered in course of his operations in executing the contract. In case BHEL is forced to pay any of such taxes, BHEL shall have the right to recover the same from his bills or otherwise as deemed fit.

However, provisions regarding Service Tax and Value Added Tax (VAT) on output services and goods shall be as per following clauses.

8.1.2 Service Tax & Cess on Service Tax

Contractor's price/rates shall be exclusive of Service Tax and Cess on Services. In case, it becomes mandatory for the contractor under provisions of relevant act/law to collect the Service Tax & Cess from BHEL and pay the same to the concerned tax authorities, such applicable amount will be paid by BHEL at the prevailing Service Tax Rate (presently 12.36 %) on the admitted bill value.

Contractor shall submit to BHEL documentary evidence of Service Tax registration certificate specifying name of services covered under this contract. Contractor shall submit serially numbered Service Tax and Cess Invoice, signed by him or a person authorized by him in respect of taxable service provided, and shall contain the following, namely,

1. The name, address and the registration number of the contractor,
2. The name and address of the party receiving taxable service,
3. Description, classification and value of taxable service provided and,
4. The service tax payable thereon.

All the Four conditions shall be fulfilled in the invoice before release of service tax payment.

Wherever, more than one route/option are available for discharge of service tax liability under a particular service, (e.g. "works contract Service"), contractor shall obtain prior written consent from BHEL site before billing the amount towards Service Tax.

8.1.3 VAT (Sales Tax /WCT)

As regards Value Added Tax (VAT)/CST on transfer of property in goods involved in Works Contract (previously known as Works Contract Tax) applicable as per local laws, the price quoted by the contractor shall be inclusive of the same and in no case input or output VAT/CST will be reimbursed extra.

In any case the Contractor shall register himself with the respective Sales Tax authorities of the state and submit proof of such registration to BHEL along with the first RA bill. Contractor will submit all the details of VAT/CST paid for the contract in the prescribed format of the respective state VAT laws. Also, the contractor will issue the tax Invoices to BHEL as per the Tax laws of respective state on monthly basis. Contractor shall also be required to furnish to BHEL necessary proof of VAT remittance on monthly basis.

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII: Taxes and Other Duties

Deduction of tax at source shall be made as per the provisions of law and is to be construed as an advance tax paid by the contractor and no reimbursement thereof will be made.

Further, if BHEL, at the instance of customer or otherwise adopts the specific route for discharging output VAT liability itself, benefit of the reduction in liability of the contractor will be passed on to BHEL.

In case, BHEL is forced to pay any VAT liability on behalf of contractor, the same will be recovered from contractor's bill or otherwise as deemed fit

8.2 New Taxes/Levies

In case the Government imposes any new levy/tax on the output service/ goods/work after award of the contract, the same shall be reimbursed by BHEL at actual.

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

No reimbursement/recovery on account of increase/reduction in the rate of taxes, levies, duties etc. on input goods/services/work shall be made. Such impact shall be taken care of by the Price Variation/Adjustment Clause (PVC) if any. In case PVC is not applicable for the contract, Bidder has to make his own assessment of the impact of future variation if any, in rates of taxes/duties/ levies etc. in his price bid.

8.3 BUILDING & OTHER CONSTRUCTION WORKERS (REGULATION OF EMPLOYMENT AND CONDITIONS OF SERVICE) ACT, 1996 (BOCW Act) AND RULES OF 1998 READ WITH BUILDING & OTHER CONSTRUCTION WORKERS CESS Act, 1996 & CESS RULES, 1998.

In case any portion of work involves execution through building or construction workers, then compliance to the above titled Acts shall be ensured by the contractor and contractor shall obtain license and deposit the cess under the Act. In the circumstances it may be ensured as under:-

- i. It shall be the sole responsibility of the contractor in the capacity of employer to forthwith (within a period of 15 days from the award of work) apply for a licence to the Competent Authority under the BOCW Act and obtain proper certificate thereof by specifying the scope of its work. It shall also be responsibility of the contractor to furnish a copy of such certificate of licence / permission to BHEL within a period of one month from the date of award of contract.
- ii. It shall be the sole responsibility of the contractor as employer to ensure compliance of all the statutory obligations under these act and rules including that of payment / deposit of 1% cess on the extant of work involving building or

TECHNICAL CONDITIONS OF CONTRACT (TCC)

Chapter-VIII: Taxes and Other Duties

- construction workers engaged by the contractor within a period of one month from the receipt of payment.
- iii. It shall be the responsibility of the sub-contractor to furnish the receipts / challans towards deposit of the cess together with the number, name and other details of beneficiaries (building workers) engaged by the sub-contractor during the preceding month.
 - iv. It shall be the absolute responsibility of the sub-contractor to make payment of all statutory payments & compensations to its workers including that is provided under the Workmen's Compensation Act, 1923.

**SPECIAL CONDITIONS OF CONTRACT (SCC)
CHAPTER IX –DRAWINGS**

FOLLOWING DRAWINGS ARE ENCLOSED WITH THE TENDER.

SL. NO	DRG. NO	TITLE	DATED
1	PE-VO-293-183-A003 (REV 1)	LAYOUT OF SEWAGE TREATMENT PLANT	07.02.13
2	PE-DG-293-665-C002 (REV 0- SHEET 1 OF 2)	CO2 CYLINDER STORAGE AREA- GA & RC DETAILS OF FOUNDATION, COLUMN, BEAM & SLAB	10.01.13
3	PE-DG-293-665-C002 (REV 0 – SHEET 2 OF 2)	CO2 CYLINDER STORAGE AREA- ARCHITECTURAL PLANS, ELEVATIONS & SECTION DETAILS	10.01.13
4	-----	DETAILS OF PULL PIT	--
5	PE-DG-293-100-E042 (REV 4- SHEET 2 OF 2)	LAYOUT OF CABLING INTERCONNECTION BETWEEN MAIN PLANT & AUXILIARIES PLANTS AREA	23.02.12
6	-----	VENTILATOR REFERENCE	
7	-----	HYDROGEN STORAGE ROOM	
8	PE-VO-293-183-A177 (REV 0)	RCC DETAILS OF FOUNDATION FOR THICKENED SLUDGE TRANSFER PUMP	07.02.13
9	PE-DG-293-603-C001 (REV-4)	ROAD LAYOUT PLAN	12.11.10
10	PE-DG-293-603-C001 (REV-4)	OLD DRAIN LAYOUT	30.11.12
11	PE-DG-293-603-C002 (REV-4)	DETAILED SECTIONS OF ROADS AND DRAINS	12.11.10
12	PE-DG-293-100-M001(REV-2)	GENERAL PLOT PLAN	30.08.09

These drawings are only for tendering purpose. The work shall be executed as per site requirement.