## TENDER SPECIFICATION

## NO: BHE/PW/PUR/PIPVG-BULD/758

CONSTRUCTION OF CIVIL, ARCHITECTURAL AND STRUCTURAL WORKS FOR CONTROL & FACILITY BUILDING, DM CWST, CSWPH, OH TANK, ELECTROCHLORINATION PLANT, ETP, STP, ROAD AND DRAINS, CULVERTS, WORKSHOP, STORES, CW PIPING AND PIPE & CABLE RACK WORKS ETC

(ALL WITHDRAWN FROM SCOPE OF OTHER AGENCY)

AT

2X350MW CCPP, GPPCL, PIPAVAV, 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
- Volume 1 E Technical Specifications



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-</u> <u>758</u> )	1		
NIL	Notice Inviting Tender	(Part of <u>Vol-IA-</u> 758)	13		
I-A	Technical Conditions of Contract	Vol-IA-758	10		
I-B	Special Conditions of Contract	Vol-IBCD-758	47		
I-C	General Conditions of Contract	(Part of <u>Vol-</u> <u>IBCD-758</u> )	29		
I-D	Forms & Procedures	(Part of <u>Vol-</u> <u>IBCD-758</u> )	54		
I-E	TECHNICAL SPECIFICATIONS	Part of <u>Vol-I E-</u> <u>758</u> )			
II	Price Bid Specification	Vol-II-758			

#### LEGEND:

- This document (i.e. NIT & Vol-I A) is hosted in BHEL web page (<u>www.bhel.com</u>) as a ( Vol-I) of Technical Bid
- 2) "Vol I -B, I-C, I-D" of Part-I ( Vol- I ) Hosted in BHEL web page (<u>www.bhel.com</u>) separately as a part of Technical Bid.
- 3) Technical Specifications- VOL-I-E is a separate book issued with tender & also hosted in our web page in which Volume- II B –Section-D is also written. Vol-II B is same as Vol-I E and it's a part of technical bid.
- 4) Price bid is issued as a separate hard copy booklet 'Tender Specifications Volume-II (Price Bid-758)'. Hosted in BHEL web page (<a href="www.bhel.com">www.bhel.com</a>) separately as titled "PRICE BID-758"

NOTE: These tender drawings are not hosted in our web site. These drawings shall be available in our office at Nagpur in Hard Copy. Bidders can collect these drawings while purchasing tender specification.

## **Tender Specification Issue Details**

Tender Specification No: BHE/PW/PUR/PIPVG-BULD/758

CONSTRUCTION OF CIVIL, ARCHITECTURAL AND STRUCTURAL WORKS FOR CONTROL & FACILITY BUILDING, DM CWST, CSWPH, OH TANK, ELECTROCHLORINATION PLANT, ETP, STP, ROAD AND DRAINS, CULVERTS, WORKSHOP, STORES, CW PIPING AND PIPE & CABLE RACK WORKS ETC

(ALL WITHDRAWN FROM SCOPE OF OTHER AGENCY)

AT

2X350MW CCPP, GPPCL, PIPAVAV, GUJARAT.

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
PLEASE NOTE: THESE TENDER SPECS DOCUMENTS ARE NOT TRANSFERABLE.
For Bharat Heavy Electricals Limited
DY. GENERAL MANAGER (Purchase) Place: Nagpur Date:

Rev 00 6<sup>th</sup> July 2010

# NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



#### Dt: 18/08/2010

# 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 <a href="PREQUALIFICATION CRITERIA">PREQUALIFICATION CRITERIA</a> 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/PDVT-PIPVG-BULD/758	
ii	Broad Scope of job	CONSTRUCTION OF CIVIL, ARCHITECTURAL AND STRUCTURAL WORKS FOR CONTROL & FACILITY BUILDING, DM CWST, CSWPH, OH TANK, ELECTROCHLORINATION PLANT, ETP, STP ,ROAD AND DRAINS ,CULVERTS ,WORKSHOP, STORES, CW PIPING AND PIPE & CABLE RACK WORKS ETC (ALL WITHDRAWN FROM SCOPE OF OTHER AGENCY) AT 2X350MW CCPP, GPPCL, PIPAVAV, GUJARAT.	
iii	DETAILS OF TENDER	DOCUMENT	
а	Volume-IA	<u>Technical</u> 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
С	Volume-IC	General Conditions of Contract (GCC)	Applicable
d	Volume-ID	Forms and Procedures	Applicable
е	Volume- IE	Technical Specification	Applicable
f	Volume-II	Price Schedule (Absolute value).	Applicable

v	DUE DATE & TIME OF OFFER	1. Sale from BHEL PS Regional office at: Start: 18/08/2010 Closes: 27/08/2010 , Time:17.00 Hrs  2. From BHEL website (www.bhel.com) Tender documents can however be downloaded from website till due date of submission  Date: 30/08/2010 , Time:15.00Hrs  Place:	Applicable Applicable
vi	SUBMISSION OPENING OF TENDER	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, tenders shall be opened on next working day at the same time.  (2) Bidder may depute representative to witness the opening of tender	Applicable
vii	EMD AMOUNT	Rs 2,00,000/- (Rupees Two Lakhs Only)	Applicable
viii	COST OF TENDER	Rs 2000/	Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	Date: (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	Applicable
X	SCHEDULE OF Pre Bid Discussion (PBD)	Date : Not applicable.	Not applicable.
хi	INTEGRITY PACT & DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)	Applicable ( Refer Annex- 3 of NIT )	Applicable
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 Corrigendums) 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 & 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 <u>Procedure for Submission of Tenders</u>: 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)

The contents for ENVELOPES and the superscription for each sealed cover/Envelope are as given below. (All pages to be signed and stamped)

SI no	Description	Remarks
00	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.	
	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.		
٧.	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 Conditions</u> 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 – I E : Technical Specifications		
xiii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only		
	'QUOTED' or 'UNQUOTED' against each item		
xiv.	Any other details preferred by bidder with proper indexing.		

	PART-I B	
	ENVELOPE – II superscribed as:	
	PART-I (EMD/COST of TENDER)	
	TENDER NO:	
	NAME OF WORK :	
	PROJECT:	
	DUE DATE OF SUBMISSION:	
	CONTAINING THE FOLLOWING:-	
i.	Earnest Money Deposit (EMD) in the form as indicated in this Tender	
	<u>OR</u>	
	Documentary evidence for 'One Time EMD' with the Power Sector	
	Region of BHEL floating the Tender	
	Cost of Tender ( Demand Draft or copy of Cash Receipt as the case may be)	

	PART-II	
	PRICE BID consisting of the following shall be enclosed	
	ENVELOPE-III	
	superscribed as:	
	PART-II (PRICE BID)	
	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	o Envelopes I		
	o Envelopes II		
	o Envelopes III		

<u>SPECIAL NOTE</u>: All documents/ annexures 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 No Deviation with respect to tender clauses and no additional clauses/ suggestions/ in Technocommercial bid/ Price bid shall normally 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 <u>Assessment of Capacity of Bidders: ( Shall be applicable for bid evaluation from 1st Jan- 2011</u> onwards )

Bidders capacity for executing the job under tender shall be assessed as per the following:

- I. <u>Assigning Weightages (A) for Similar Jobs Under-Execution</u>: Weightages shall be worked out and assigned based on the average number of Similar Works under execution including works yet to be commenced by the agency, in the following manner:
  - i). Number of Similar Jobs

a) No. of jobs in BHEL, PSER : Say 'J' b) No. of jobs in BHEL, PSSR : Say 'K' c) No. of jobs in BHEL, PSWR : Say 'L' d) No. of jobs in BHEL, PSNR : Say 'M'

- e) No. of jobs with other customers\* : Say 'N' (\*: Other than BHEL PSER, PSSR, PSWR & PSNR)
- f) Average No. of Jobs is 'P'= (J+K+L+M+N) divided by 5
- ii) <u>Weightage "A" assigned to bidders based on Average Number of jobs</u> "P":
  - a) If 'P' = 0-1, "A" will be equal to '3'
  - b) If 'P' = 2-3, "A" will be equal to '2'
  - c) If 'P' = 4-5, "A" will be equal to '1'
  - d) If 'P' is Above 5, "A" will be equal to '0'

- II. Weightage "B" for Quarterly Performance Reports of Vendors: This shall be based on the averages of the net weighted score obtained by the bidder for the jobs under execution (excluding works not commenced) for the quarter previous to the last quarter reckoned from the date of latest due date of submission, in all four Regions i.e BHEL PSER, PSSR, PSWR & PSNR, in the following manner.
  - i). Ratings by Power Sector Region:
    - a) PS ER's Rating 'Rer' =  $(X_1 + X_2 + ... + X_n)$  divided by n
    - b) PS WR's Rating 'Rwr' =  $(X_1 + X_2 + ... + X_n)$  divided by n
    - c) PS SR's Rating 'Rsr' =  $(X_1 + X_2 + ... + X_n)$  divided by n
    - d) PS NR's Rating 'Rnr' =  $(X_1 + X_2 + ... + X_n)$  divided by n
    - e) Over all Power Sector Region Rating 'RBHEL' = (Rer+ Rwr+ Rsr+ Rnr) divided by 4

(where " $X_1$ ,  $X_2$ ,  $X_3$ ,... $X_n$ " is the net weighted score obtained by the bidder as per the "Evaluation of Contractor Performance (Quarterly)" against the various contracts 'n' under execution in the respective Region).

- ii) Weightage "B" assigned to bidders based on Overall Power Sector Rating (RBHEL):
  - a) If R<sub>BHEL</sub> is 80% and above, "B" will be equal to '6'
  - b) If **R**<sub>BHEL</sub> is > 70% < 80%, "B" will be equal to '5'
  - c) If **R**<sub>BHEL</sub> is > 60% < 70%, "B" will be equal to '4'
  - d) If  $\mathbf{R}_{BHEL}$  is = < 60%, "B" will be equal to '0'
- III. <u>Evaluation of Bidders capacity to execute the job under tender:</u> shall be based on the sum of scores obtained in 'A' and 'B', as below:
  - a) 6 or above: Considered 'Qualified' for the job under tender
  - b) Less than 6: Considered 'NOT Qualified' for the job under tender
- IV. **Explanatory note**:
  - a) Similar work means Boiler or Turbine or Civil or Electrical or CI, etc irrespective of rating of
  - b) Quarter shall be as per the quarter defined in the "Evaluation of Contractor performance (Quarterly)". For contracts where annexed Quarterly Evaluation performance was not part of the contract, 'Quarterly Performance Reports' previous to the last quarter reckoned from the date of latest due date of submission, given by the respective project site against the contract will be the basis for evaluation.
  - Vendors who are not executing any jobs presently in the Region and first timers to the Region, may be considered subject to satisfying all other tender conditions
  - d) 'Under execution' shall mean works in progress upto Boiler Steam Blowing (for Boiler and Auxilliaries) or Synchronisation (for all other jobs including Civil) shall be considered.
- 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 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. No additional claim shall be entertained by BHEL in future, on account of non-acquaintance of above.
- 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 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.
- 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), <u>if applicable</u>, along with techno-commercial bid. This pact shall be considered as a preliminary qualification for further participation. <u>The names and other details of Independent External Monitor</u> (IEM) for the subject tender is as given at point (xi) of 1 above.
- 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 pre-qualification evaluation/ techno-commercial bids, approval/ acceptance of customer (as applicable), etc. and date of opening of price bids shall be intimated to only such bidders.
- 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/Disgualified 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) or specified otherwise in SCC of tender.
- 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.
- 22.0 The bidders shall not enter into any undisclosed M.O.U. or any understanding amongst themselves with respect to tender.
- 23.0 In case Consortium Bidding is allowed as per Pre Qualifying Requirement, then Prime Bidder and Consortium Partner shall enter into Consortium Agreement. Validity period of Consortium Agreement shall be 6 months after which the same can be re validated.
  - 'Stand alone' bidder cannot become a 'prime bidder' or a 'consortium bidder' in a consortium 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.
- 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
- h. Technical specification- Volume-1E

for BHARAT HEAVY ELECTRICALS LTD

(SCT)

#### **Enclosure**

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

## **ANNEXURE - 1**

## PRE QUALIFYING CRITERIA

JOB	CONSTRUCTION OF CIVIL, ARCHITECTURAL AND STRUCTURAL WORKS FOR
	CONTROL & FACILITY BUILDING, DM CWST, CSWPH, OH TANK,
	ELECTROCHLORINATION PLANT, ETP, STP ,ROAD AND DRAINS ,CULVERTS
	,WORKSHOP, STORES, CW PIPING AND PIPE & CABLE RACK WORKS ETC
	(ALL WITHDRAWN FROM SCOPE OF OTHER AGENCY) AT 2X350MW CCPP,
	GPPCL, PIPAVAV, GUJARAT.
TENDER NO	BHE/PW/PUR/PIPVG-BULD/758

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the Criteria	PQR
		Name and Description of qualifying criteria ( Bidder Should Fill Up the Details in this column for PQR )	Page no of supporting document of bidders offer
A	Submission of Integrity Pact duly signed	APPLICABLE FOR THIS TENDER ( Refer Annex- 3 of NIT)	
В	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT (if applicable)	Shall be applicable for bid evaluation from 1st Jan- 2011 onwards )	
С	Technical C1) Bidder should have executed Plant & Non Plant Buildings including work of RCC under ground Sump, Road, Drains, Construction of RCC overhead tank in Power Plant or in any industry in last seven year as on 30/07/2010 as below.  i) Single work order of Rs 20.00 Crore or of more value.  OR  ii) Two separate work orders of Rs 12.00 Crore or of more value.  OR  iii)Three separate work orders of Rs 10.00 Crore or of more value.  OR  (C2) Bidder should have executed Main Plant Civil works for at least one unit of 100 MW Thermal Power Plant or of more rating including Turbine & Generator, Boiler, ESP foundation in a single order.  OR  (C3) Bidder should have executed Main Plant Civil works for at least one plant of 100 MW Combined Cycle Power Plant or of more rating including Main Gas Turbine foundation, STG, HRSG, STACK foundation in a single order.		

	OR ( C4) Bidders should have empanelled with BHEL- PS-WR for Main Plant Civil work in the Category of C-MP-1 or C- MP-2 or C-MP-3 or in Balance plant Civil work of category C-BP-1 OR C-BP-2 OR C-BP-3	
D.1	Financial TURNOVER Bidders must have achieved an average annual financial turnover (Audited) of Rs 7.50 Crore or more over last three Financial Years (FY) i.e 2007-08, 2008-2009, 2009-2010 or for 2006-2007, 2007-2008 and 2008-2009 if audited Annual Accounts for FY 2009-10 are not audited	
D.2	NETWORTH  Net worth of the Bidder based on the latest Audited Accounts as furnished for 'D1' above should be positive	
D.3	PROFIT  Bidder must have earned cash profit in any one of the three Financial Years as applicable in the last three years defined in 'D1 above above based on latest Audited Accounts.	
E	Approval of Customer (if applicable) Note: Names of bidders who stand qualified after compliance of criteria A to D shall be forwarded to customer for their approval. Price bid of only those bidders shall be opened who are approved by customer.	
F	Consortium criteria (if applicable)  Explanatory Notes for QR 'A'  1. The word 'executed' means the bidder should have contract has not been completed or closed	

BIDDER SHALL SUBMIT ABOVE PRE-QUALIFICATION CRITERIA FORMAT, DULY FILLED-IN, SPECIFYING RESPECTIVE ANNEXURE NUMBER AGAINST EACH CRITERIA AND FURNISH RELEVANT DOCUMENT IN THE RESPECTIVE ANNEXURES IN THEIR OFFER along with copies of Work Orders, Work Completion certificates, Audited profit and Loss Account for the last three years, Integrity Pact duly filled & signed and other related documents as per PQR & tender specification..

## 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	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Fax No:		
4	EMD DETAILS	DD No: Date Bank: Amou Please tick (√) whichever app ONE TIME EMD / ONLY FOR		
			APPLICABILITY	BIDDER REPLY
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 year	Applicable	YES/NO	
8	Copy of PAN Card submitted	Applicable	YES/NO	
9	Whether all pages of the Tender documents includi are read understood and signed	Applicable/Not Applicable	YES/NO	
10	Integrity Pact ( Refer Annex- 3 of NIT)		Applicable	
11	Declaration by Authorised Signatory submitted	Applicable	YES/NO	
12	No Deviation Certificate submitted	Applicable	YES/NO	
13	Declaration confirming knowledge about Site Condition	Applicable	YES/NO	
14	Declaration for relation in BHEL submitted	Applicable	YES/NO	
15	Non Disclosure Certificate submitted	Applicable	YES/NO	
16	Bank Account Details for E-Payment submitted	Applicable	YES/NO	

17	Capacity Evaluation of Bidder for current Tender	Not Applicable	
18	Tie Ups / Consortium Agreement against this tender	Not Applicable for this tender	
19	Power of Attorney for Submission of Tender/Signing Contract Agreement submitted	Applicable	YES/NO
20	Analysis of Unit rates submitted	Applicable	YES/NO

NOTE: STRIKE OFF 'YES' OR 'NO', AS APPLICABLE

DATE: AUTHORISED SIGNATORY

(With Name, Designation and Company seal)

## **IMPLEMENTION OF INTEGRITY PACT IN BHEL**

## **INTEGRITY PACT (IP)**

- 1.0 The IP shall be a part of tender document and shall be returned by bidder along with techno-commercial bid duly signed by the authorized signatory who signs the bid. The IP duly signed by bidder and authorized official of BHEL will form a part of purchase order/contract.
- 2.0 Only those bidders who have entered into such IP would be competent to participate in the bidding. In other words, entering into this pact would be preliminary qualification.
- 3.0 Independent External Monitor (IEM):- BHEL has appointed IEM as detailed below to oversee the compliance of obligations under IP.

a) Names of IEM are as below:	
SH J M LYNGDOH, IAS ( RETD )	

## **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 of meaning hereof shall include its successors or assigns of the ONE PART

And
<u>Preamble</u>
The Principal intends to award, under laid-down organizational procedures, contract/s for
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 Independent External Monitor(s), who will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Tender Specification No: BHE/PW/PUR/PIPVG-BULD/758 Page 19 of 55

## **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 itself 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 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. He commits himself to observe the following principles during his 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)/ Contractors(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.

Registered Office: BHEL House, Siri Fort, New Delhi – 110 049, India

Page 20 of 55

- 2.1.3 The Bidder(s)/ Contractor(s) will not commit any penal offence under the relevant IPC/PC 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 The Bidders (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.

**Section 3 – Disqualification from tender process and execution 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 or take action as per separate "Guidelines on for Suspension of Business Dealings with Suppliers/ Contractors" framed by the Principal.

## **Section 4 – Compensation for Damages**

- 4.1 If the Principal has disqualified the Bidder from the tender process prior to the award 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 has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages equivalent to 5% of the contract value or the amount equivalent to Security Deposit/ Performance Bank Guarantee, whichever is higher.

## **Section 5 – Previous Transgression**

- 5.1 The Bidder declares that no previous transgressions occurred in the last 3 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 his subject, he can be disqualified from the tender process or the contract, if already awarded, can be terminated for such reason.

Registered Office: BHEL House, Siri Fort, New Delhi – 110 049, India

## Section 6 – Equal treatment of all Bidders/ Contractors/ Sub-Contractors

- 6.1 The Bidder(s)/ Contractor(s) undertake(s) to obtain from his sub-contractors a commitment consistent with this Integrity Pact and report Compliance to the Principal. This commitment shall be taken only from those sub-contractors whose contract value is more than 20% of Bidder's/ Contractor's contract value with the Principal. The Bidder(s)/Contractor(s) shall continue to remain responsible for any default by his Sub-contractor(s).
- 6.2 The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
- 6.3 The Principal will disqualify from the tender process all bidders who do not sign this pact or violate its provisions.

## Section -7 Criminal Charges against violating Bidders/ Contractors/ Sub-contractors

If the Principal obtains knowledge of conduct of a Bidder. Contractor or Sub-contractor, 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.

## Section – 8 Independent External Monitor(s)

- 8.1 The Principal appoints competent and credible Independent External Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
- 8.2 The Monitor is 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 Bidder(s)/ Contractors(s) accepts that the Monitor has the right to access without restriction to all contract documentation of the Principal including that provided by the Bidder(s)/ Contractor(s). The Bidder(s)/Contractor(s) will grant the monitor, upon his request and demonstration of a valid interest, unrestricted and unconditional access to his contract documentation. The same is applicable to Sub-contractor(s). The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Sib-contractor(s) with confidentiality.

Registered Office: BHEL House, Siri Fort, New Delhi – 110 049, India

- 8.4 The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the contract provided such meeting could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
- 8.5 As soon as the Monitor notices, or believes to notice, a violation of this agreement, he will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or heal the situation, or to take other relevant action. The Monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
- 8.6 The Monitor will submit a written report to the CMD, BHEL within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
- 8.7 The CMD, BHEL shall decide the compensation to be paid to the Monitor and its terms and conditions.
- 8.8 If the Monitor has reported to the CMD, BHEL, a substantiated suspicion of an offence under relevant IPC/PC 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 Monitor may also transmit this information directly to the Central Vigilance Commissioner, Government of India.
- 8.9 The number of Independent External Monitor(s) shall be decided by the CMD, BHEL.
- 8.10 The word 'Monitor' would include both singular and plural.

## **Section 9 – Pact Duration**

- 9.1 This Pact begins and shall be binding on and from the submission of bid(s) by bidder(s). It expires for the Contractor 12 months after the last payment under the respective contract and for all other Bidders 6 months after the contract has been awarded.
- 9.2 If any claim is made/ lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified as above, unless it is discharged/ determined by the CMD, BHEL.

## **BHEL PSWR Notice Inviting Tender**

**Tender Specification No: BHE/PW/PUR/PIPVG-BULD/758** Page 23 of 55

## Section 10 – Other Provisions

- 10.1 This agreement is subject to Indian Laws and jurisdiction shall be registered office of the Principal, i.e. New Delhi.
- 10.2 Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
- 10.3 If the contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
- 10.4 Should one or several provisions of this agreement turn out to be invalid, the reminder of this agreement 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 agreement with the Principal would be competent to participate in the bidding. In other words, entering into this agreement would be a preliminary qualification.

For & On Behalf of the Principal (Office Seal)	For & On Behalf of the Bidder/ Contractor (Office Seal)
Place: Date:	
Witness:(Name & Address)	Witness:(Name & Address)

Rev 00 6<sup>th</sup> JULY

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



# TECHNICAL CONDITIONS OF CONTRACT (TCC) CONTENTS

SI 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	10
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	2

## TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I : Project Information

1.0	Project Information				
1.1	INTRODUCTION				
	GSPC PIPAVAV POWER CO. Ltd. is going to install 2x350MW Gas Based Combined Cycle Power Plant (CCPP) at Pipavav Distt. Amreli (Gujarat). The entire work of this project have been awarded to BHEL on total turn-key basis (EPC Contract) comprising of Design, Engineering, Manufacturing, Supply, transportation, Unloading, Storage, erection, testing, Commissioning with Auxiliaries and ancillaries including civil & structural and land grading works and handing over the plant in phased manner within 33 months from zero date/ 29/03/2008.				
	The plant is located at a distance of 375 Km from Ahmadabad city of Gujarat state on the Sta Highway NH-34 running between Rajula and Jafrabad. Contractor is advised to visit the site ar appraise himself about the conditions of the site and infrastructure available in the area for fulfilling their commitment under the contract.				
	APPROACH TO SITE Location:				
	In Amreli District of Gujarat State, Latitude 71° 16' N / Longitude 20° 54' E				
	The site is a PIPAVAV Plant of GSPC in Amreli District of State of Gujarat.				
	Power Station Site: 3 Meter above MSL, Graded Level Elevation above mean see level (MSL)				
	Nearest Railway Station: Rajula				
	Nearest Town: Rajula Town (16km)				
	Nearest Airport: Diu (80 kms) / Ahmadabad (375kms by road)				
	Nearest Seaport: Pipavav (35 kms)  Access by Road: PIPAVAV is connected by road from State Highway NH 34 running between Rajula and Jafrabad.				
	1. Owner GSPC PIPAVAV POWER COMPANY Ltd (GPPCL)				
	2. Project Title 2X351.43 MW PIPAVAV CCPP				
	3. Location Village: Kovaya Near pipavav Taluka:				
	Rajula, Distt: Amreli, Gujarat, India				
	4. Nearest Railway Stn. Rajula				
	5. Ambient Air Temperature				
	a. Highest ever temperature recorded (Dry Bulb) 43 deg.C				
	b. Lowest ever temperature recorded (Dry Bulb) 10 deg.C				
	c. Maximum Daily Average (Dry Bulb) 33 deg C				
	d. Average Mean temperature				
	(Dry Bulb) : 33 deg C (For CCPP Performance)				

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

	e.	Average Mean te	emperature			
		(Wet Bulb)	:		28 deg C (For CCPP Performance)	
	f.	Average Mean te	emperature			
		(Wet Bulb)		:	28.5 deg C (For Cooling Tower Performance)	
	g.	Design Ambient	for Electrical Eq	uipment	t 50 deg C	
6.	Relat	tive Humidity				
	a.	Maximum	89%			
	b.	Minimum	10%			
	c.	Average	70%			
7.	Rain	fall				
	a.	Annual Average	– 1050 mm in th	e period	d June to October. Maximum intensity of rainfall;	
		150 mm/hr contin	nuously maximu	m rainfa	all in a day – 400mm.	
8.	Wind	l Data :16.5 km/hr				
9.	Seisn	nic Zone - Zone II	I as per IS: 1893-	-2005 (P	Part – IV)	
10.	Amb	ient Air Quality -	The site is locat	ed close	e to Kovaya village and is bordering Birla group	
	Ceme	ent plant and color	ny .This area is cl	lassified	l under semi-urban area.	

## 2.0 SCOPE OF WORK

#### 2.0.1 Construction work:

- 1. CONTROL & FACILITY Building
- 2. DM CWST. (DM Clarified Water Storage Tank)
- 3. **CSWPH.** (Clarified Sea Water Pump House)
- 4. OH TANK. (Over head Tank)
- 5. **ELECTROCHLORINATION PLANT.**
- 6. ETP. (Effluent Treatment Plant)
- 7. STP. (Sewage Treatment Plant)
- 8. **ROAD.**
- 9. DRAINS and CULVERTS
- 10. WORKSHOP.
- 11. STORES.
- 12. **CW PIPING**
- 13. PIPE AND CABLE RACK WORKS ETC

THE SCOPE OF WORKS COVERS ALL CIVIL, STRUCTURAL, ARCHITECTURAL & FINSHING WORKS FOR THE ABOVE AREAS INCLUDING SUPPLY OF ALL MATERIALS, LABOUR, TOOLS AND PLANTS BUT EXCLUDING SUPPLY OF REINFORCEMENT (HCR-M GRADE IS 1786, Fe500) & STRUCTURAL STEEL WHICH WILL BE SUPPLIED BY BHEL FREE OF COST AS DETAILED ELSEWHERE IN THE CONTRACT.

LAYING / CUTTING & REWELDING OF ASSOCIATED ELECTRICAL EARTHING WORKS SHALL ALSO BE DONE BY CIVIL CONTRACTOR AS PER DRAWINGS (EXCLUDING TEST PIT/EARTH PIT) FOR WHICH 40MM DIA. MS ROD/GI FLATS SHALL BE SUPPLIED BY BHEL FREE OF COST.

#### 2.0.2 Other related activities:

- i) Draw Construction Power & Water from Customer's given Point at one location inside the plant including all materials.
- ii) Taking delivery of reinforcement bars, Structural steel and other free issued materials from BHEL stores including loading, transportation and unloading, stacking, preservation etc. at site.

## iii) 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 LOGSHEETS 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 ESTABLIHS THEIR OWN FIELD QUALITY LAB. OR HAVE TIEUP WITH APPROVED LAB. BY BHEL IN/OUTSIDE OF THE PLANT.

## 2.0.3 Reconciliation of steel issued by BHEL free of cost:

## 2.0.3.1 **MATERIAL**

- 1) STEEL LIKE (STRUCTURAL, REINFORCEMENT BARS AND 40MM DIA. MS ROUND EARTHING ROD/FLATS) AS SPECIFIED IN RELEVANT BOQ SHALL BE ISSUED AT 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 WORK.
- 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 WATERPROOF CEMENT STORE (CAPACITY MINIMUM 500 MT) 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 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 WHICH DELAYS THE COMPLETION OF WORK, SUCH CASES SHALL BE RECORDED SEPARATELY DURING REVIEW MEETING AT SITE & SHALL BE CONSIDERED FOR TIME EXTENSION OF CONTRACT.
- 5) NO MATERIAL SHALL BE ISSUED TO THE CONTRACTOR EXCEPT AS THOSE INDICATED ABOVE I.E STRUCTURAL STEEL, REINFORCEMENT AND MS ROUND EARTHING ROD/FLATS 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 COPIES OF MONTHLY-COMPUTERIZED RECONCILIATION STATEMENT OF SUCH ACCOUNT TO THE BHEL.
- 7) CONTRACTOR SHALL ALSO CARRYOUT 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.

- 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.

## 2.0.4 FOLLOW UP & HANDLING OF MATERIALS ISSUED BY BHEL:

- 1) BHEL WILL PLACE PURCHASE ORDER ON THE MANUFACTURES FOR PROCUREMENT OF STRUCTURAL STEEL, REINFORCEMET BARS, SS STEEL AND EARTHING RODS 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 MAN FOR SHORT DURATION AT MANUFACTURES FACTORY WITHIN THEIR QUOTED RATES.
- 2) STEEL LIKE (STRUCTURAL, REINFORCEMENT AND MS ROUND EARTHING ROD/ FLATS) AS SPECIFIED IN RELEVANT BOQ SHALL BE ISSUED AT 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.
- 3) MATERIALS SHALL BE ISSUED BY BHEL BASED ON THE 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 BE DIRECTLY DIVERTED TO THE WORK SITE FOLLOWING ISSUANCE PROCEDURE OF BHEL. SUCH DIRECT ISSUES SHALL BE AS PER THE CHALAN/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/ TRAILOR 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, TRAILORS 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. TEMPORARY BARBED WIRE FENCING OF THE OPEN STORAGE YARD IS TO BE DONE BY THE CONTRACTOR AND IS INCLUDED UNDER THE SCOPE OF HIS WORK. CONTRACTOR SHALL ALSO REMOVE GRASS, BUSHES, TREES ETC WHEREVER REQUIRED OFF THE LAND PROVIDED TO HIM AND SHALL MAKE PROPER CONTINUOUS UP KEEPING OF THE OPEN YARD /LAND BY REMOVING GRASS, BUSHES TREES ETC AND SAME IS INCLUDED UNDER THE SCOPE OF HIS WORK & NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR IN THIS REGARD. 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 WORK. 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.

#### 2.0.4 ISSUE OF BHEL MATERIALS

ISSUE OF STEEL: -

THE STEEL SHALL BE ISSUED TO THE CONTRACTOR ON THE FOLLOWING BASIS:

(A) STRUCTURAL STEEL, MS FLATS : WEIGHMENT BASIS (UNIT -

MT) /LINEAR

MS PLATES/ CHEQUERED PLATES ETC. MEASUREMENT (SECTION

WT. AS PER RELEVANT **IS** CODE)

(B) REINFORCEMENT STEEL : WEIGHMENT BASIS (UNIT – MT)/ LINEAR AND EARTHING ROD (MS ROUND). MEASUREMET ( SECTION WT. AS PER RELEVENT IS CODE )

ALL THE STEEL (STRUCTURAL, REINFORCEMENT, EARTHING MS ROD, MS FLATS) 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 WEIGHTS AS INDICATED IN THE FOLLOWING IS SPECIFICATIONS.

IS: 808-1964 BEAMS, CHANNELS AND ANGLES

IS: 1730-1961 PLATES, SHEETS AND STRIPS

IS: 1732-1971/IS-1786 ROUNDS INCLUDING DEFORMED HIGH YIELD STRENGTH BARS/TMT REBARS.

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. 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. 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.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 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.	ISSUE OF MATERIALS	MAX. QTY IN
NO.		CONTRACTORS STORE.
1	REINFORCEMENT STEEL &	REQUIREMENT OF ONE
	EARTHING ROD 40MM. MS	MONTH
	ROUND.	
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 ENABLING JOB LIKE STORE/SITE OFFICE ETC SHALL BE ARRANGED AT HIS OWN COST.

#### 2.0.5 RETURN OF STEEL MATERIALS

ALL SURPLUS STEEL AND ALL WASTAGE MATERIALS WILL BE TAKEN BACK ON WEIGHMENT BASIS. HOWEVER LINEAR MEASUREMENTS SHALL ALSO BE ACCEPTABLE FOR UNUSED/ FULL SIZE MATERIALS.

SURPLUS, UNUSED AND UN-TAMPERED STEEL SHALL BE SORTED 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.

ALL WASTAGE / SCRAP (INCLUDING MELTING SCRAP, WASTAGE, 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 HANDLING AND TRANSPORTATION AND INCIDENTAL CHARGE.

ALL SCRAP FOR REINFORCEMENT (CUT PIECES) SHALL BE RETURNED SEPARATELY.

ALL SCRAP FOR STRUCTURAL STEEL INCLUDING MELTING SCRAP SHALL BE RETURNED SEPARATELY.

#### 2.0.6 STEEL CONSUMPTION AND WASTAGE:-

STRUCTURL STEEL, REINFORCEMENT AND EARTHING ROD 40 MM MS ROUND STEEL CONSUMPTION AND WASTAGE.

#### 1) THE THEORETICAL CONSUMPTION

THE THEORETICAL CONSUMPTION OF VARIOUS SECTIONS AND/OR DIAMETER OF REINFORCEMENT AND EARTHING MS ROUND, RAILS 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.

- i) ACTUAL CONSUMPTION = ISSUE SURPLUS (UNUSED).
- ii) SURPLUS = UN-TAMPERED AND UNUSED QTY. OF STEEL RETURNED BY THE CONTRACTOR TO BHEL STORE ALONG-WITH RELEVANT DOCUMENTS.
- iii) **WASTAGE =** ACTUAL CONSUMPTION THEORETICAL CONSUMPTION.

## 2) WASTAGE OF STEEL

**ALLOWABLE WASTAGE:** - Plus five percentage (+5%) of the theoretical consumption shall be considered as allowable wastage for both structural as well as reinforcement steel. Wastage is further classified as cut pieces/Serviceable Scrap (pieces of reinforcement steel and rolled section lengths 3 M and above, MS plate 1.0M² and above with minimum width 200mm) and scrap/unserviceable (Less than above) measured as per actual weighment 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).

SL. REINFORCEMENT STEEL & NO. EARTHING ROD 40 mm MS ROUND

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

## SL. STRUCTURAL STEEL NO.

BASIS OF ISSUE & PENAL RECOVERY

- S-1 THEORETICAL CONSUMPTION (WITHOUT FREE CONSIDERING WASTAGE AND SCRAP OR LOSS)
- 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
(R-1). (CUT PIECES PLUS SCRAP TO BE
RETURNED TO BHEL).

PENAL RATE

#### 2.0.7 RECONCILIATION OF BHEL ISSUED MATERIALS: -

THE CONTRACTOR SHALL SUBMIT A RECONCILIATION STATEMENT OF STEEL ISSUED TO THEM WITH EACH RA BILL.

AT THE TIME OF SUBMISSION OF BILLS, 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.

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.

THE APPROVED DRAWINGS/BAR BENDING SCHEDULES ARE TO BE CONSIDERED FOR THE PURPOSE OF RECONCILIATION OF MATERIALS.

#### 2.0.8 **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

A. REINFORCEMENT STEEL AND EARTHING ROD ETC. RS. 55, 000/- PER MT.

**B. STRUCTURAL STEEL** 

1. CHQD. PLATES/MS PLATES

RS. 60, 000/- PER MT.

2. FLATS/ BEAMS/ CHANNEL/ ANGLES ETC. (ROLLED SECTIONS)

RS. 60, 000/- PER MT.

#### 2.0.9 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, WINDOWS, DOORS, VENTILATORS, ROLLING SHUTTER, SANITARY FIXTURES, PAINTING & FINISHING MATERIAL, STOP-LOG GATES, TRAVELLING SCREEN, ELECTRICAL FITTINGS AND WIRING MATERIAL AND ALL OTHER MATERIAL REQUIRED FOR THE COMPLETION OF ENTIRE SCOPE, 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 FOR CEMENT FOR EVERY BATCH OF MANUFACTURING ALONGWITH 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/PIPAVAV 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 RELEVENT PRICE VARIATION CLAUSE.

## NOTE:

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

THE DETAILED TECHNICALSPECFICATIONS (Section – D) COVERING THE ABOVE SCOPE OF WORK IS BEING ISSUED AS A SEPARATE BOOK UNDER THE TITLE "TECHNICAL SPECFICATIONS".

The Technical specification is referred as Section-D issued by BHEL. The technical specification of M/s TCE (Consultant for this project) is also attached as a part of Tender specification. In case of any clarification/conflict between Section-D of BHEL & of M/s TCE, the M/s TCE"s specification shall be supersede over BHEL specification for reference and execution of contract.

#### BIDDERS ARE REQUESTED TO SPECIFICALLY NOTE THE FOLLOWING:

THE CIVIL, STRUCTURAL, ARCHITECTURAL WORK FOR THE ABOVE WORKS AS MENTIONED UNDER THE SCOPE WAS AWARDED TO SOME OTHER AGENCY AND CERTAIN JOBS HAVE BEEN DONE BY THEM. NOW THESE PORTIONS ARE BEING WITHDRAWN/ ISOLATED FROM THEIR SCOPE DUE TO UNAVOIDABLE SUCCESSFUL REASONS. BIDDER HAS TO **UNDERGO FOR** MEASUREMENTS IN PRESENCE OF BHEL REPRESENTATIVES AT SITE BEFORE TAKING OVER THE SITE FOR CONSTRUCTION OF SUCCESSIVE WORKS & FREEZE THE TERMINAL POINT OF OLD CONTRACT. ALSO CONTRACTOR HAS TO TAKE OVER THE BHEL ISSUED MATERIALS IF ANY WITH PREVIOUS CONTRACTOR AS PER INSTRUCTION OF BHEL.

BIDDERS ARE REQUESTED TO HAVE <u>PRE-BID VISIT/ INSPECTION OF SITE</u> 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 FIXEUP THEIR SITE VISIT IN CONSULTATION WITH CONSTRUCTION MANAGER BHEL SITE OFFICE PIPAVAV. NAME, ADDRESS & CONTACT POINT OF SITE IS AS BELOW:

SHRI S.K.PAUL (CONSTRUCTION MANAGER)
BHEL SITE OFFICE – 2X350 MW CCPP PIPAVAV

E-MAIL ID: paul@bhelpswr.co.in

Sl.No	Description		/ to be care by	Remarks
	PART I	BHEL	Bidder	Remarks
3.1	ESTABLISHMENT			
3.1.1	FOR CONSTRUCTION PURPOSE:			
а	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
С	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	
е	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			

CI No	Description	-	/ to be	
Sl.No	PART I	BHEL	care by Bidder	Remarks
а	Open space for labour colony (as per availability)		Yes	Contractor has to make his own arrangements for space, shelter and transportation of labors as per their requirement.
b	Labour 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.
а	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	
С	Duties and deposits including statutory clearances if applicable		Yes	

	Description	-	/ to be	
Sl.No	PART I	BHEL	Care by Bidder	Remarks
3.2.2	Electricity for the office, stores, canteen etc of the bidder (to be specified whether chargeable or free)	DIILL	Diddei	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.
а	Single point source	Yes		
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
С	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	
С	Duties and deposits including statutory clearances if applicable		Yes	
3.3.0	WATER SUPPLY			

SI.No	Description	Description Scope / to be taken care by		Remarks	
	PART I	BHEL	Bidder	Kemans	
3.3.1	For construction purposes: (to be specified whether chargeable or free)			FREE	
а	Making the water available at single point	Yes		At a distance of 500M from site. IN CASE OF non-	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	availability of construction water due to any reason from customer point, contractor shall have to arrange construction water at his own expenses.	
3.3.2	Water supply for bidder's office, stores, canteen etc				
а	Making the water available at single point	Yes		Free	

	Description	-	/ to be	
SI.No			care by	Remarks
	PART I	BHEL	Bidder	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	At a distance of 1.0 KM 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	Water supply for Living Purpose		Yes	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	
3.4.0	LIGHTING			
а	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	

	Description	-	/ to be	
SI.No	taken care by		Remarks	
	PART I	BHEL	Bidder	
	For construction work			
	(execution of the lighting			
b	work/ arrangements )		Yes	
	1. At office/storage area			
	2. At the preassembly area			
	3 At the construction site /area			
	Providing the necessary			
С	consumables like bulbs,		Yes	
	switches, etc during the			
	course of project work			
	Lighting for the living			
d	purposes of the bidder at		Yes	
	the colony / quarters			
	COMMUNICATION			
3.5.0	FACILITIES FOR SITE			
3.3.0	OPERATIONS OF THE			
	BIDDER			
	Telephone, fax, internet,		Yes	
a	intranet, e-mail etc		165	
	COMPRESSED AIR			
3.6.0	wherever required for		Yes	
	the work			
2.7.0	Demobilization of all the		VEC	
3.7.0	above facilities		YES	
3.8.0	TRANSPORTATION			
	For site personnel of the		Voc	
a	bidder		Yes	
	For bidder's equipments and			
b	consumables (T&P,		Yes	
	Consumables etc)			

	Description	_	be taken e by	
SI.No	PART II  3.9.0 ERECTION FACILITIES	BHEL	Bidder	Remarks
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 Pl refer Chapter- IX-
b	Drawings for construction methods	Yes	Yes	In consultation with BHEL
С	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
е	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

	Description	Scope / to be taken care by		
Sl.No	PART II  3.9.0 ERECTION FACILITIES	BHEL	Bidder	Remarks
h	Daily erection / work plan based on Sl 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 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	(a) T &Ps FOR STRUCTURAL WORKS				
		Maior TOD House	04		
	SL	Major T&P items	Qty		
	1.	40 T Crawler crane	01Nos		
	2.	18 T Crawler crane	01Nos		
	3.	Hydra (8 / 10 T Cap.)	02Nos.		
	4.	Radial drill machine	04Nos		
	5.	Welding Rectifier	03Nos.		
	6.	Welding m/c	05Nos.		
	7.	Grinding machine	07Nos. 02Nos.		
	<u>8.</u> 9.	Portable diesel welding M/C	02Nos.		
		Pug cutting m/c Power Driven HSFG bolt tightening m/c	02Nos.		
		Hand cutting set	02Nos		
		Hydraulic jack of different capacity	07Nos.		
		Stationery oven	03Nos.		
	14.	Portable oven	07Nos.		
		DG set of 160KVA	01Nos.		
		15t/20t tractor & trailor	02Nos.		
	17.	Air compressor of regd capacity for sand	01Nos.		
	17.	blasting	011100.		
	18.	Ultrasonography testing M/c for str. Steel	01Nos.		
	19.	Radiography sources	01Nos.		
	20.	Fabrication Bed	03 Nos.		
		Ps FOR CIVIL WORKS			
	1.	Automatic batching plant (15 Cub.m./Hr.)		01Nos.	
	2.	Conventional concrete mixer machine	0 110 5014	03 Nos.	
	3.	Concrete Pump (30 Cum/Hr min capacity	& lift 50M)	01Nos.	
	4.	Electrical Winch (of required capacity)		01Nos.	
	5.	Vibrators		07 Nos.	
	6.	Air Compressor		01Nos.	
	7.	Jack Hammer		02 Nos	
	8.	Wagon drill machine		01Nos.	
	9.	Self priming Dewatering pump of vario (Diesel/Electric) From 3 HP to 12 HP	ous capacity	04Nos.	

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

SN		DESCRIPTION				
	10.	Curing / dewatering pump – 1.5 / 2 HP	02Nos.			
	11.	Hydraulic Excavator /Poclain with rock breaker attachment (mule/rock breaker as per requirements)	01Nos			
	12.	JCB	01Nos.			
	13.	Ply Shuttering board with adequate supporting structure – 10000 Sqm. (Old steel shuttering plates will not be allowed).	As per requirement.			
	14.	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.			
	15.	Dumper	01Nos.			
	16.	Reinforcement bending machine	01Nos.			
	17.	Reinforcement cutting machine	01Nos.			
	18.	MS scaffolding pipe with matching Couplers	10000RM			
	19.	Power driven earth rammer	02Nos.			
	20.	Vibromax (earth compacter)	01Nos.			
	21.	Total Station	01Nos.			
	22.	Auto level & staff	01Nos.			
	23.	Concrete Cube Moulds	40Nos.			
	24.	Tippers	10 Nos.			
	25.	Water Tanker	01No.			
	26.	POLES, CABLES, HALOGENS,BULBS ETC FOR AREA ILLUMINATION	As per requirement			
	27.	COMPUTER(window Xp) with printing & CD writing facility	4sets			
	28.	COMMUNICATION FACILITIES – LANDLINE, WLL, MOBILE, FAX ETC.	As per requirement			

### (c) CIVIL WORKS - FIELD QUALITY LAB EQUIPMENTS -

- (a) AUTOMATIC COMPRESSION TESTING MACHINE(2000KN) 1NO
- (b) CUBE MOULDS(150MM SIZE) 24 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

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

SN	DESCRIPTION
	(f) OVEN (CAPACITY 120LTR, RANGE – 250C) – 1NO (g) MOISTURE CONTAINER(STEEL/ALUMINIUM) – 02NOS (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.

#### **B**: MEASURING AND MONITORING DEVISES (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.

BHEL WILL NOT PROVIDE ANY T & P's FOR THIS 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 12 (Twelve) months in a manner required by BHEL to match with the project schedule.

#### THE OVERALL CONTRACT PERIOD SHALL BE 12 (Twelve) 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 under take 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 EXCAVATION 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. THE DATE OF COMMENCEMENT FOR THE PURPOSE OF CLAUSE

DATE OF START OF WORK SHALL BE THE DATE ON WHICH FIRST EXCAVATION WORK 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 Stages of Progressive Payments

#### 7.0.1 PROGRESSIVE PAYMENT FOR CIVIL, STRUCTURAL AND ARCHITECTURAL WORK.

THE PERCENTAGE OF PAYMENT FOR PROGRESSIVE COMPLETION OF WORK IN VARIOUS CATEGORIES OF WORK SHALL BE AS UNDER:

#### 7.0.2 CIVIL AND ARCHITECTURAL WORK

100% OF ITEM RATE ON PRORATA BASIS AGAINST MONTHLY RA BILLS.

#### 7.0.3 STRUCTURAL WORK

100% OF ITEM RATE ON PRORATA BASIS AGAINST MONTHLY RA BILLS AS FOLLOWS.

AS PER SCHEDULE OF RATE FOR ITEM NO **2301 (b)** COMPOSITE RATE FOR ERECTION CAN BE FURTHER BREAK UP AS FOLLOWS:-

- (a) **ERECTION**: ON COMPLETION OF ERECTION 80% OF THE QUOTED RATE
- (b) COMPLETION OF **WELDING & ALIGNMENT**: 20% OF THE QUOTED RATE

The RA bill payment shall be made as made as per Cl no 10.0 of Chapter –X of SCC (page-43) & GCC cl no-2.23 (page 28,29).

#### 7.0.4 EXTRA/ADDITIONAL ITEMS OF WORK:-

**SHALL BE As Per GCC.** 

### TECHNICAL CONDITIONS OF CONTRACT (TCC) Chapter-VIII: Taxes and Other Duties

#### 8.0 TAXES, DUTIES, LEVIES

Refer to Clause 2.8.4 of General Conditions of Contract. Notwithstanding anything contained therein, the following provisions shall be applicable for this contract.

8.1

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.

#### 8.2 Service Tax & Cess on Service Tax

Service Tax and Cess on Service Tax as applicable on output Services are excluded from contractor's scope; therefore contractor's price/rates shall be exclusive of Service Tax and Cess on Output Services. In case, it becomes mandatory for the contractor under provisions of relevant act/law to collect the Service Tax & Cess from BHEL and deposit the same with the concerned tax authorities, such applicable amount will be paid by BHEL.

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,

- I. The name, address and the registration number of the contractor,
- II. The name and address of the party receiving taxable service,
- III. Description, classification and value of taxable service provided and,
- IV. The service tax payable thereon.

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

Contractor shall obtain prior written consent from BHEL before billing the amount towards such taxes

With introduction of Cenvat Credit Rules 2004, which came into force w.e.f. 10.09.2004, Excise Duty paid on Input Goods including Capital Goods and Service Tax paid on Input Services that are used for providing the output services can be taken credit of against the Service Tax payable on output services. However BHEL may opt for availing the abatement provision in which case cenvat credit may not be available on input duty.

## TECHNICAL CONDITIONS OF CONTRACT (TCC) Chapter-VIII: Taxes and Other Duties

#### 8.3 VAT (Sales Tax /WCT)

As regards Value Added Tax (VAT) 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 exclusive of the same. Where such taxes are required to be paid by the contractor, this will be reimbursed on production of proof of payment made to the authorities by the Contractor. 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. The contractor has to take all necessary steps to minimize tax on input goods by purchasing the materials from any registered dealer of the concerned state only. In case contractor opts for composition, it will be with the prior express consent of BHEL. Deduction of tax at source shall be made as per the provisions of law unless otherwise found exempted. In case tax is deducted at source as per the provisions of law, this is to be construed as an advance tax paid by the contractor and no reimbursement thereof will be made unless specifically agreed to.

#### 8.4 Modalities of Tax Incidence on BHEL

Wherever the relevant tax laws permit more than one option or methodology for discharging the liability of tax/levy/duty, BHEL will have the right to adopt the appropriate one considering the amount of tax liability on BHEL/Client as well as procedural simplicity with regard to assessment of the liability. The option chosen by BHEL shall be binding on the Contractor for discharging the obligation of BHEL in respect of the tax liability to the Contractor.

#### 8.5 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.

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

#### FOLLOWING DRAWINGS ARE ENCLOSED WITH THE TENDER.

SL.NO	DRG. NO	TITLE
1	PE-DG-292-635-C007	CLARIFIED SEA WATER PUMP
		HOUSE - GA & RC DETAILS OF
		TANK 3 NOS.
2	PE-DG-292-635-C007	DM CLARIFIED WATER STORAGE
		TANK - GA & RC DETAILS OF
	DE DO 000 005 0000	TANK 3 NOS.
3	PE-DG-292-635-C029	OVER HEAD WATER TANK.
		GENERAL ARRANGEMENT AND DETAILS
4	PE-DG-292-635-C030	OVER HEAD WATER TANK.
4	FE-DG-292-033-C030	FOUNDATION LAYOUT AND
		COLUMN DETAILS.
5	PE-DG-292-635-C031	OVER HEAD WATER TANK. RC
	1 2 3 3 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	DETAILS OF DOMES, WALLS AND
		BEAM.
6	PE-DG-292-635-C032	OVER HEAD WATER TANK.
		STAIRCASE DETAILS.
7	PE-DG-292-637-C001	ELECTRO-CLORINATION
		BUILDING ARCHETICTURAL
		PLANS.
8	PE-DG-292-637-C002	ELECTRO-CLORINATION
		BUILDING ARCHETICTURAL
		ELEVATION, SECTION AND FINISH
9	PE-DG-292-637-C003	SCHEDULE.  ELECTRO-CLORINATION PLANTS
9	FE-DG-292-037-C003	LAYOUT & DETAILS OF FOOTING,
		COLUMNS & PLINTH BEAMS.
10	PE-DG-292-637-C004	ELECTRO-CLORINATION PLANTS
		LAYOUT & DETAILS OF TIE BEAM.
11	PE-DG-292-637-C005	ELECTRO-CLORINATION PLANTS
		LAYOUT & DETAILS OF ROOF
		SLAB AND BEAMS
12	PE-DG-292-637-C006	ELECTRO-CLORINATION PLANTS
		LAYOUT & DETAILS OF
		MONORAIL.
12	DE DC 202 645 C024	MODKETOD
13	PE-DG-292-645-C001	WORKSHOP BUILDING ARCHETICTURAL PLANS, ROOF
L		ARCHETICTURAL PLANS, ROUF

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

		SECTIONS& FINISH SCHEDULE. MONORAIL.
14	PE-DG-292-645-C002	WORKSHOP BUILDING ARCHETICTURAL ELEVATIONS (N,S,E,W)
15	PE-DG-292-645-C006	WORKSHOP BUILDING LAYOUTS & DETAILS OF FOUNDATIONS, PEDESTALS & PLINTH BEAM.
16	PE-DG-292-675-C002	HRSG, GT AND STG AREA; PIPE & CABLE RACK DEATAILS OF PEDESTAL AND FOUNDATIONS.
17	PE-DG-292-675-C001	HRSG AREA; PIPE AND CABLE RACK DETAIL OF STEEL STRUCTURE AND BASE PLATE.
18	PE-DG-292-675-C003	PIPE RACK DETAILS OF STRUCTURAL FRAME AND BASE PLATE.
19	PE-DG-292-675-C004	DETAILS OF PEDESTAL AND FOUNDATION.
20	PE-DG-292-675-C005	PIPE RACK DETAILS OF STRUCTURAL FRAME AND BASE PLATE.
21	PE-DG-292-675-C005	PIPE RACK DETAILS OF STRUCTURAL FRAME AND BASE PLATE.(AROUND PERMEATE, CLARIFIED & FILTER WATER P/H)
22	PE-DG-292-675-C006	DETAILS OF PEDESTAL AND FOUNDATION. (AROUND PERMEATE, CLARIFIED & FILTER WATER P/H)

NOTE: These tender drawings are not hosted in our web site. These drawings shall be available in our office at Nagpur in Hard Copy. Bidders can collect these drawings while purchasing tender specification.