

# **TENDER SPECIFICATION**

## **NO: BHE/PW/PUR/WR- PEB/784**

RATE CONTRACT FOR DESIGN, SUPPLY , MANUFACTURING , RECEIPT AT SITE AND ERECTION OF PRE ENGINEERED AND RE-ERECTABLE TYPE CLOSED SHED WITH OFFICE , CLOSED SHED AND SEMI CLOSED SHED INCLUDING STRUCTURAL AND SHEET CLADDING WORKS FOR VARIOUS FORTH-COMING POWER PROJECTS IN INDIA.

AT

M.P., CHHATTISGARH, MAHARASTRA, GUJARAT, GOA, AND ALSO SITES ON BORDER OF UTTER PRADESH, ORISSA AND RAJASTAN STATE WITHIN BHEL POWER SECTOR WESTERN REGION

### **TECHNICAL BID - VOLUME- I**

**TENDER SPECIFICATIONS CONSISTS OF:**

- Notice Inviting Tender,
  - Technical Conditions of Contract,
  - Special conditions of Contract,
  - General conditions of Contract
  - Forms & Procedures
- } **VOLUME I**



**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 <b><u>Vol-IA-784</u></b> )	1
NIL	Notice Inviting Tender	(Part of <b><u>Vol-IA-784</u></b> )	13
I-A	Technical Conditions of Contract	Vol-IA-784	60
I-B	Special Conditions of Contract	Vol-IBCD-784	47
I-C	General Conditions of Contract	(Part of <b><u>Vol-IBCD-784</u></b> )	29
I-D	Forms & Procedures	(Part of <b><u>Vol-IBCD-784</u></b> )	54
II	Price Bid Specification	Vol-II-784	

LEGEND:

This document ( i.e. NIT & Vol-I A ) is hosted in BHEL web page ([www.bhel.com](http://www.bhel.com)) as a ( Vol- I ) of Technical Bid-784

\$: “**Vol I -BCD**” of Part-I ( Vol- I ) Hosted in BHEL web page ([www.bhel.com](http://www.bhel.com)) separately as a part of Technical Bid.

@: **Price bid is** issued as a separate hard copy booklet ‘Tender Specifications – Volume-II (Price Bid-784 )’. Hosted in BHEL web page ([www.bhel.com](http://www.bhel.com)) separately as titled “**VOL-II-PRICE BID-784** ”

## **Tender Specification Issue Details**

**Tender Specification No: BHE/PW/PUR/WR-PEB/784**

**DESIGN, SUPPLY, MANUFACTURING, RECEIPT AT SITE AND ERECTION OF PRE ENGINEERED AND REERECTABLE TYPE CLOSED SHED WITH OFFICE, CLOSED SHED AND SEMI CLOSED SHED INCLUDING STRUCTURAL AND SHEET CLADDING WORKS FOR VARIOUS FORTH-COMING POWER PROJECTS IN INDIA.**

**AT**

**M.P., CHHATTISGARH, MAHARASTRA, GUJARAT, GOA, AND ALSO SITES ON  
BORDER OF UTTER PRADESH, ORISSA AND RAJASTAN STATE WITHIN BHEL  
POWER SECTOR WESTERN REGION**

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)

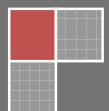
Place: Nagpur

Date :

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

# NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



Ref: BHE/PW/PUR/WR-PEB/784.

Dt:15/11./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 [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/WR-PEB/784
ii	Broad Scope of job	DESIGN , SUPPLY , MANUFACTURING , RECEIPT AT SITE AND ERECTION OF PRE ENGINEERED AND REERECTABLE TYPE CLOSED SHED WITH OFFICE , CLOSED SHED AND SEMI CLOSED SHED INCLUDING STRUCTURAL AND SHEET CLADDING WORKS FOR VARIOUS FORTH-COMING POWER PROJECTS IN INDIA. AT M.P., CHHATTISGARH, MAHARASTRA, GUJARAT, GOA, AND ALSO SITES ON BORDER OF UTTER PRADESH, ORISSA AND RAJASTAN STATE WITHIN BHEL POWER SECTOR WESTERN REGION
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. <b><u>Sale from BHEL PS Regional office at :</u></b> <b>Start : 16/11/2010.</b> <b>Closes:30/11/2010. , Time :17.00 Hrs</b> Applicable

**BHEL PSWR**  
**Notice Inviting Tender**

**Tender Specification No : BHE/PW/PUR/WR-PEB/784**

Page 6 of 44

		<b>2. From BHEL website (<a href="http://www.bhel.com">www.bhel.com</a>)</b> Tender documents can however be downloaded from website till due date of submission	
v	<b>DUE DATE &amp; TIME OF OFFER SUBMISSION</b>	<b>Date : 01/12/2010, Time :15.00Hrs</b> <b>Place : BHEL OFFICE, NAGPUR</b>	<i>Applicable</i>
vi	<b>OPENING OF TENDER</b>	<b>1 hours after the latest due date and time of Offer submission</b> 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	<i>Applicable</i>
vii	<b>EMD AMOUNT</b>	<b>Rs 2,00,000/- (Rupees Two Lakhs Only)</b>	<i>Applicable</i>
viii	<b>COST OF TENDER</b>	<i>Rs 2000/-.</i>	<i>Applicable</i>
ix	<b>LAST DATE FOR SEEKING CLARIFICATION</b>	<b>Date: (Atleast 5 days before the due date of offer submission)</b> Along with soft version also, addressing to undersigned & to others as per contact address given below	<i>Applicable</i>
x	<b>SCHEDULE OF Pre Bid Discussion (PBD)</b>	<i>Date : Not applicable.</i>	<i>Not applicable.</i>
xi	<b>INTEGRITY PACT &amp; DETAILS OF INDEPENDENT EXTERNAL MONITOR (IEM)</b>	<i>Not Applicable</i>	<i>Not Applicable</i>
xii	<b>Latest updates</b>	Latest updates on the important dates, Amendments, Correspondences, Corrigenda, Clarifications, Changes, Errata, Modifications, Revisions, etc to Tender Specifications will be hosted in BHEL webpage ( <a href="http://www.bhel.com">www.bhel.com</a> -->Tender Notifications →View Corrigendums) <b>and not in the newspapers.</b> 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

**BHEL PSWR**  
**Notice Inviting Tender**

**Tender Specification No : BHE/PW/PUR/WR-PEB/784**

Page 7 of 44

- 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)
- 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
	<b>Part-I A</b>	
	<b><u>ENVELOPE – I superscribed as :</u></b> PART-I (TECHNO COMMERCIAL BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:  <b>CONTAINING THE FOLLOWING:-</b>	
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.  <b><u>Note:</u></b> <ol style="list-style-type: none"> <li>a. In case of any deviation, the same should be submitted separately for technical &amp; 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.</li> <li>b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding.               <ol style="list-style-type: none"> <li>i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL</li> <li>ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender</li> </ol> </li> </ol>	
iii.	Supporting documents/ annexure/ schedules/ drawing etc as required in line with Pre-Qualification criteria.  It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph no, FAX no, etc.	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc pertinent to this NIT.	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi.	Duly filled-in annexures, formats etc as required under this Tender Specification/NIT	
vii.	Notice inviting Tender (NIT)	
viii.	Volume – I A : <u>Technical</u> Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms	

**BHEL PSWR**  
**Notice Inviting Tender**

**Tender Specification No : BHE/PW/PUR/WR-PEB/784**

Page 8 of 44

	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.	

	<b>PART-I B</b>	
	<b>ENVELOPE – II superscribed as:</b> PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:  <b>CONTAINING THE FOLLOWING:-</b>	
i.	1. Earnest Money Deposit (EMD) in the form as indicated in this Tender <b>OR</b> Documentary evidence for 'One Time EMD' with the Power Sector Region of BHEL floating the Tender  2. Cost of Tender ( Demand Draft or copy of Cash Receipt as the case may be)	

	<b>PART-II</b>	
	<b>PRICE BID</b> consisting of the following shall be enclosed	
	<b>ENVELOPE-III</b> superscribed as: PART-II (PRICE BID) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:  <b>CONTAINING THE FOLLOWING</b>	
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)	

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



i	<ul style="list-style-type: none"> <li>○ Envelopes I</li> <li>○ Envelopes II</li> <li>○ Envelopes III</li> </ul>	
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SPECIAL NOTE : 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 Techno-commercial 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 Assessment of Capacity of Bidders: ( Shall be applicable for bid evaluation from 1<sup>st</sup> Jan- 2011 onwards )**

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

I. **Assigning Weightages (A) for Similar Jobs Under-Execution:** 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) Weightage "A" assigned to bidders based on Average Number of jobs "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' =  $(X_1 + X_2 + \dots + X_n)$  divided by n
- b) PS WR's Rating 'Rwr' =  $(X_1 + X_2 + \dots + X_n)$  divided by n
- c) PS SR's Rating 'Rsr' =  $(X_1 + X_2 + \dots + X_n)$  divided by n
- d) PS NR's Rating 'Rnr' =  $(X_1 + X_2 + \dots + X_n)$  divided by n
- e) **Over all Power Sector Region Rating 'R<sub>BHEL</sub>' = (Rer+ Rwr+ Rsr+ Rnr) divided by 4**

(where " $X_1, X_2, X_3, \dots, X_n$ " 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 ( $R_{BHEL}$ ):

- a) If  $R_{BHEL}$  is 80% and above, "B" will be equal to '6'
- b) If  $R_{BHEL}$  is  $> 70\% < 80\%$ , "B" will be equal to '5'
- c) If  $R_{BHEL}$  is  $> 60\% < 70\%$ , "B" will be equal to '4'
- d) If  $R_{BHEL}$  is  $= < 60\%$ , "B" will be equal to '0'

III. Evaluation of Bidders capacity to execute the job under tender: 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 Plant
- 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.
- c) 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 Auxiliaries) 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.
- 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 (xi) of 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 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/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) 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

for BHARAT HEAVY ELECTRICALS LTD

(SCT)

**Enclosure**

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

**ANNEXURE - 1****PRE QUALIFYING CRITERIA**

JOB	DESIGN , SUPPLY , MANUFACTURING , RECEIPT AT SITE AND ERECTION OF PRE ENGINEERED AND REERECTABLE TYPE CLOSED SHED WITH OFFICE , CLOSED SHED AND SEMI CLOSED SHED INCLUDING STRUCTURAL AND SHEET CLADDING WORKS FOR VARIOUS FORTH-COMING POWER PROJECTS IN INDIA. AT M.P., CHHATTISGARH, MAHARASTRA, GUJARAT, GOA, AND ALSO SITES ON BORDER OF UTTAR PRADESH, ORISSA AND RAJASTAN STATE WITHIN BHEL POWER SECTOR WESTERN REGION.
TENDER NO	BHE/PW/PUR/WR-PEB/784

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		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 (if applicable)	NOT APPLICABLE FOR THIS TENDER	
B	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT (if applicable)	<b>Shall be applicable for bid evaluation from 1<sup>st</sup> Jan- 2011 onwards )</b>	
C	<b><u>Technical</u></b> .1 Bidder must have successfully executed Design, Supply & Erection of Factory Made Pre Fabricated Structural Sheds ( PEB Sheds) in the last seven years as on 31/10/2010 as below.  i) Single work order of <b>not less than Rs 85.00 Lakhs</b> or of more value. <b>OR</b> ii) Two work orders of <b>not less than Rs 53.00 lakhs each</b> <b>OR</b> iii) Three work orders of <b>not less than Rs 42.00 Lakhs each</b>	<b>Bidder Should Fill Up the Details here for C</b> ..... ..... .....	
D.1	<b><u>Financial TURNOVER</u></b> Bidders must have achieved an average annual financial turnover (Audited) of <b>Rs 32.00 Lakhs</b> or more over last three Financial Years (FY) i.e 2007-08, 2008-2009, 2009-2010 .	<b>Bidder Should Fill Up the Details here for D1</b> ..... .....	

D.2	NETWORTH Net worth of the Bidder based on the latest Audited Accounts as furnished for 'D1' above should be positive	Bidder Should Fill Up the Details here for D2 ..... .....	
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 based on latest Audited Accounts.	Bidder Should Fill Up the Details here for D3 ..... .....	
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.	NOT APPLICABLE	
F	Consortium criteria (if applicable)		
	<b>Explanatory Notes for QR 'A'</b> 1. The word 'executed' means the bidder should have achieved the criteria specified in the QR even if the total contract has not been completed or closed 2. Bidder to submit Audited Balance Sheet and Profit and Loss Account for the respective years as given above along with all annexures 3. <b>BIDDER SHOULD ESSENTIALLY MEET ALL THE PQR ( i.e. POR- C, D1,D2,D3 &amp; E ) AS ABOVE TO GET QUALIFIED AGAINST THIS TENDER</b>		

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 and other related documents as per PQR & tender specification..

**BHEL PSWR**  
**Notice Inviting Tender**

**Tender Specification No : BHE/PW/PUR/WR-PEB/784**

Page 15 of 44

**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	Details of Contact person for this Tender	Name : Mr/Ms Designation: Telephone No: Mobile No: Fax No:	
4	EMD DETAILS	DD No:                      Date : Bank :                      Amount: <u>Please tick ( √ ) whichever applicable:-</u> ONE TIME EMD / ONLY FOR THIS TENDER	
		APPLICABILITY	BIDDER REPLY
6	Whether the format for compliance with <b>PRE QUALIFICATION CRITERIA</b> (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 submitted	Applicable	YES/NO
8	Copy of PAN Card submitted	Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable/Not Applicable	YES/NO
10	Integrity Pact	<b>Not Applicable</b>	----
11	Declaration by Authorised Signatory submitted	Applicable	YES/NO
12	No Deviation Certificate submitted	Applicable	YES/NO
13	Declaration confirming knowledge about Site Conditions submitted	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	-----

**BHEL PSWR**  
**Notice Inviting Tender**

**Tender Specification No : BHE/PW/PUR/WR-PEB/784**

Page 16 of 44

18	Tie Ups / Consortium Agreement against this tender	<b>Not Applicable for this tender</b>	-----
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 :**

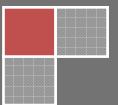
**AUTHORISED SIGNATORY**  
(With Name, Designation and Company seal)



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

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## CONTENTS

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SI No	DESCRIPTION	Chapter	No. OF PAGES
Volume-IA	Part-I: Contract specific details		
1	Project Information	Chapter-I	1
2	Scope of Works	Chapter-II	9
3	Facilities in the scope of Contractor/BHEL (Scope Matrix)	Chapter-III	5
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	2
7	Terms of Payment	Chapter-VII	1
8	Taxes and other Duties	Chapter-VIII	2
9	Tender Drawings	Chapter-IX	2
10	Specific Exclusion	Chapter-X	1

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter - I : Project Information

1.0	<b>Project Information</b>
	<p style="text-align: center;"><b><u>PROJECT INFORMATION</u></b></p> <p><b>BHRAT HEAVY ELECTRICALS LIMITED (BHEL)</b> IS GOVERNMENT OF INDIA UNDERTAKING “A NAVARATHNA COMPANY” AMONGST PUBLIC SECTOR COMPANIES IN INDIA. BHEL IS ONE OF THE LARGEST PSU IN THE FIELD OF ENGINEERING, DESIGN, MANUFACTURING, SUPPLYING AND ERECTION &amp; COMMISSIONING OF POWER PLANTS IN THE COUNTRY AND ABROAD.</p> <p>INTENT OF THIS TENDER IS TO FINALIZE A RATE CONTRACT FOR <b>PRE ENGINEERED BUILDING (PEB)</b> FOR THE PURPOSE OF STORAGE OF POWER PLANT EQUIPMENT &amp; MATERIALS AT VARIOUS FORTH-COMING POWER PROJECTS IN INDIA IN THE STATE OF MADHYAPRADESH, CHHATTISGARH, MAHARASTRA, GUJARAT, GOA AND ALSO SITES ON BORDER OF UTTAR PRADESH , ORISSA &amp; RAJASTHAN STATE WITHIN THE WORK AREA OF BHEL POWER SECTOR WESTERN REGION. AS SOON AS THE ORDER IS PLACED ON BHEL BY ANY CUSTOMER, BHEL PSWR INTERN WILL ISSUE A “<b>LETTER OF AWARD (LOA)</b>” TO THE QUALIFIED AGENCY TO CARRY OUT THE ABOVE JOB WITHOUT FURTHER WASTE OF TIME. THE EXACT SITE INFORMATION SHALL BE GIVEN AT THE TIME OF PLACING <b>LOA</b>. A SEPARATE <b>LOA</b> SHALL BE PLACED FOR EACH SITE AS PER THE AGREED RATE, TERMS &amp; CONDITION.</p>

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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### TECHNICAL SPECIFICATION

#### 2.00.01 SCOPE

This specification covers Design, Manufacturing, Supply, Receipt at Site, assembly, Erection, Site Painting of steel structural closed and semi closed sheds ***including providing design and drawing only for associated Civil works like footings, columns,, plinth beam, foundation bolts etc (civil works shall be constructed by BHEL separately)***, required hardware, Pre-Painted Galvanized iron sheets (PPGI sheet)/Galvalume sheet for roofing & wall cladding, sliding doors, windows, ventilators with canopy, exhaust fans over the wall cladding and Handing over of Closed & Semi-closed Dismantle/Re-assemble type Pre-Engineered, Pre-fabricated Steel Storage Sheds in all respect. This also includes guarantee for **12 months** of operations for the design performance, materials supplied and erected by them covered under the scope of the contract. All the major fabrication jobs shall be done at contractor's works elsewhere and to be transported to designated sites for assembly, erections.

**Bidders are requested to quote their offer as per the “Price-Bid” attached for the following:**

**Part - A**

Closed shed with office and C&I room including associated finishing works as per detail specification.

**Part - B**

Closed shed including associated finishing works as per detail specification.

**Part - C**

Semi closed shed including associated finishing works as per detail specification.

**The quoted price of bidder for various sheds works shall include all applicable Duties and Taxes ( For taxes & duties – refer Chapter-VIII of this tender )“except the Freight charges” which shall be paid as per actual on production of valid documentary proof.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

---

**Bidder has to necessarily submit the following documents along with their offer for evaluation and technical suitability. Incomplete offer shall not be considered for evaluation & shall be rejected by BHEL.**

- 1) Detailed design and Drawing for civil sub structures like foundation/ footing, plinth beam and column pedestal including foundation bolts etc in line with minimum design inputs as given by BHEL elsewhere in this tender documents.
- 2) Super structures like columns, trusses, purlines for roofing and supporting structure for side cladding etc using PPGL/Galvalume sheet in line with minimum design inputs as given by BHEL elsewhere in this tender documents.
- 3) Bill of quantities for various items (structural as well as non-structural items except civil works related items).

**Foundation Bolts & nuts shall not be in the scope of Bidders & same shall be supplied & fixed by Civil agency of BHEL.**

- The Design of sheds must fulfill the minimum requirement as per respective Technical Specifications. **Bidders are advised to raise their query well in advance (before one week of date of submission).**

All the items in BOQ shall be read in conjunction with the relevant Technical Specification attached with this tender specification and work shall be carried out accordingly. All the report shall be submitted in the prescribed proforma as mentioned in tender documents and No extra claim shall be entertained on this account.

### **2.00.03 MODE OF OPERATION OF THIS RATE CONTRACT**

**The broad mechanism of operation of Rate Contract will be as follow.**

- First TWO works (of two different sites) will be awarded to L-1 (Lowest Bidder) as per final negotiated price.
- On the basis of final accepted price (of L-1 price), other bidders also from L-2 onwards (i.e. other than L1 bidder) shall be given opportunity to do the work on the rotation basis if they agree to accept final negotiated price..

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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- Combination of sheds (i.e. Numbers of different type of sheds required at one site) shall be decided by BHEL as per requirement of the project. Quoted rate shall remain unchanged.
- BHEL reserves all rights to operate this rate contract as per our discretion.
- This rate contract shall be valid for a **period of two year** from the date of offer submission. This rate contract shall further extended if required with the same terms and condition for **one year or more with applicable PVC as per GCC of this contract**.
- Negotiation shall be done with L-1 bidder (Lowest Bidder) on the basis of %age of quoted value of individual shed.

### 2.00.04 GENERAL DESIGN CONSIDERATIONS

- **Size of Closed Shed – 15Mc/cX60Mc/cX5.25M** (Clear height from FFL to Bottom of Truss).
  - **Size of Semi-Closed Shed – 15Mc/cX60Mc/cX5.25M** (Clear height from FFL to Bottom of Truss).
  - Columns shall be **spanning** – 6.0M c/c in longer span & 5.0M c/c in shorter span.
  - All Structural Members, roofing sheets and side cladding shall be fitted in such a way that they can be dismantled at any point of time.
  - **Sliding door** of double shutter type of size 4.65 M Width x 5 M Height shall be provided at front centre entrance (gable end) of each closed shed ( not in semi – closed shed). Suitable arrangements shall be made for easy operation of sliding door (gear operated).
  - 1 No. **Man-Entry Gate** shall be provided at one side of Closed Shed i.e. adjacent to sliding door.
  - Structural members shall be combination of built-up section / hot rolled section / cold rolled section / Tubular section as per the design requirements.
  - All designs have to be carried out as per relevant IS codes.
  - **Successful bidder shall submit the detail design & drawing for civil sub-structure as well as structural sheds (super structures, roofing, cladding etc.) duly vetted by reputed civil design agency / Registered Government Engineer / Institution for approval of BHEL before commencement of wok.**
- **Civil related structures like foundation, plinth beam and Pedestal:**  
Design of civil works shall be carried out as per latest IS codes and standard specification.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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- All foundation shall be RCC and height of RCC columns/pedestal shall be +600mm from existing GL (Avg. ground level around the shed) Ref. indicative drawing
- Minimum depth of foundation - 1.5m from GL.
- Minimum grade of Concrete:
  - RCC – 1:1.5:3/ M20 for foundation, column, and plinth beam etc.
  - PCC for Foundation bed - 1:4:8
- Minimum grade of cement – OPC 43
- Minimum grade of steel – Fe 415
- Minimum strength of bricks (burnt clay brick/fly ash bricks) – 35 Kg / CM<sup>2</sup>
- Minimum cement / sand mortar ratio:
  - Brick masonry (refer drg.)
    - 230 mm thick wall: 1:6.
    - 115 mm thick wall: 1:4
- **Bidders are advised to use some hard materials like Murum, Stone Soling etc. to achieve min. required SBC of soil at foundation level considering BC soil at foundation level for Designing purpose.**

### 2.00.05 STRUCTURAL STEEL WORK

All materials for structural steel works have to be supplied by the contractor and necessary test certificates of the materials procured for this work has to be submitted for scrutiny. All fabrication and erection of structures must be executed according to the specification and drawings. Erection of trusses is true to line and level and aligned properly, as per drawing and instruction of Engineer In-charge.

- Structural / steel members will have 1 coat of Zinc Chromate primer (surface preparation of the section as per the standards to suit the climatic conditions) followed by 2 coats of synthetic enamel paint, if not pre-coated. The roof truss should have bolted joints at crown and at both ends.
- **Welding** shall be strictly in accordance with IS 9595
- **Connection fasteners:** All primary connections fasteners shall be of high tensile strength bolts of grade 8.8 conforming to IS 1379 and Secondary connection fasteners shall be of Grade 4.6 machine bolted. Sheet piling fasteners shall be self tapping/self drilling screws with EPDM washers and nuts with hexagonal heads complete from reputed manufacturer shall be included in the scope.

**Since these are detachable sheds & to be in repetitive use at other**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

locations, proper marking (permanent) shall be made for identification to ease re-erection. The stores shed shall be so designed that it can be dismantled at any time and may be transported and to be re-erected at other location.

### Material specifications:

The following is the list of the material standards and specifications for which the building components shall be designed.

S.NO.	Materials	Specifications	Steel Yields
1	Built-up Members	ASTM A572M Gr50	Fy = 345 MPa
2	Hot Rolled Secondary Members	IS: 2062 Gr.A	Fy = 250 MPa
3	Cold Formed Secondary Members	ASTM A 570 M Gr65	Fy = 450 MPa
4	Sheeting Panels	ASTM A 792 M	Fy = 550 MPa
5	X-Bracing Members, Roads	IS: 2062 Gr.A	Fy = 250 MPa
6	Anchor Bolts	IS: 2062 Gr.A	Fy = 250 MPa
7	High Strength Bolts for Primary Connections	ASTM A 325 M- ANSI 18.2.3.7/18.2.3.6M OR IS 4000-1992 CLASS 8.8	Grade 8.8
8	Machine Bolts for Secondary Connections	IS: 1367 Class 4.6 (Part 1 to 3)	Grade 4.6
9	Self Drilling Self Tapping Screws	AS 3566.1 – 2002 Corrosion Resistance Class-3	-
10	Welding	70 ksi Electrode	Futs=480Mpa

### 2.00.06 CLADDING:

- Roof and side cladding with min. 0.47mm & 0.50mm respectively of Pre-Painted Galvanized Iron (PPGI) with zinc coating not less than 120 gm/m<sup>2</sup> **OR** permanent colour coated Galvalume sheet with suitable profile and min. strength of 550 Mpa. Colour of the sheet shall be preferably light Gray and all structural members shall be dark blue colour. Translucent (Poly Carbonate) sheet/ FRP sheet of min. 1.5mm thick of approved make shall be provided for alternative bays on roof top (10% of the sheeting area) for natural lighting. Both roof and side cladding are to be made “Water Tight”. Roof slope shall be 1:10.
- Purlins for wall & roof cladding shall be ‘Z or C’ shape made-up with pressed steel.



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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- **Gutters:** 26G metallic Eaves gutter including all fixing accessories like clamps, drop end etc.
- a. **Down Take Pipes:** Sufficient HDPE Rain Water down Pipe shall be provided and properly connected with gutters all around the sheds.

### 2.00.07 CLOSED SHED WITH STORE OFFICE, COMPUTER ROOM, HALL AND C&I ROOM (Part - A of BOQ):

- **Insulated Wall paneling :**  
Store in-charge Room of size 5M X 5M shall be made of 50 mm Thick PUF insulated sandwich Wall panels inside the shed. These panels are made out of 0.47 mm thick PPGI Sheet as exterior on both sides with PU Foam of density  $40 \pm 2 \text{ kg/M}^3$  and tensile strength of 4 kg/Sq.Cm. Compressive strength (10 % deformation) 2.1 Kg/Sq.Cm. Thermal conductivity at 10 Deg 0.02 W/M Deg k Temperature Range - 80 Deg C to + 100 Deg C The PU Foam thickness is min. 50 mm.
- **False ceiling**  
False ceiling shall be provided with sandwich panels of thickness 30 mm thick. The false ceiling shall be made out of anti corrosive painted 19mm square hollow section design to fix to the roof frame with suitable hangers. The clear height of ceiling shall be 3.50 M. from the finished floor level. Cut out should be made properly wherever necessary for fixing electrical fittings etc. False ceiling shall be done with polymeric section of minimum thickness 6 mm. These panels are to be joined together by tongue and groove using self tapping screws. The colour of PVC Ceiling should match with wall panels.
- **Door**  
M.S. frame shall be made from pressed steel using CR (corrosive resistant) Steel of 1.5mm thick. Door shutter shall be made of suitable M.S. Frame covered with 0.5mm thick PPGI sheet both side with PUF insulation (of min density  $40 \pm 2 \text{ kg/M}^3$ ) as to match with wall panel. High Quality Mortice Lock, Aldrop, Stopper, Handle & other accessories shall be provided.
- **Windows**  
Glazed sliding type windows of required dimension (min 2.00 M length X1.20 M height) shall be made out of PVC extruded sections with horizontal two tracks sliding. Windows shall be fitted with 4mm thick Tinted Glass with proper locking

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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arrangement. Safety Aluminum Grills / guard bars of suitable sections shall be provided in all windows. Window sill shall be decided as per the height of work station (approx. 900mm above floor). All Windows shall be fitted with Rain-shed (canopy) made from 1.0 mm thick color coated sheet. Canopy shall be folding type with proper holding and locking arrangement and shall be used as a protective cover to the glazed window.

### **Ventilators**

- Ventilators of size 600 mm (W) x 450 mm (H) shall be provided at every bay of column in all direction at a height of 4.5m from FFL made of suitable Aluminum section with wired glass open-able type and canopy for closed shed only.
- **Store office and Computer / System Room** of size 5M X 5M shall be constructed with all around wall paneling and false ceiling including following items and furniture.
  - Door: 1.0M (W) X 2.1 (H) – 1No.
  - Window: 3.0M (W) X 1.2m (H) – 1No.
  - Table: 1.2M (L) X 0.60M (W) X 0.750M (H) with a drawer of 3 partitions and also having provision for CPU and Key board – 1No.
  - Executive Chair– 1No.
  - File cabinet - 900mm length X 450mm width X 900 mm depth with having two compartments – 1No.
  - Single side steel file /book rake - consisting of 3 rakes of size 900mm width X 1850mm height X 316mm depth shall be provided.
- **C&I ROOM** of size 5MX10M shall be constructed adjacent to Computer room with wall paneling and false ceiling including following item
  - Door: 1.0M (W) X 2.1 (H) – 2Nos.

### **2.00.08 CLOSED SHED (Part - B of BOQ):**

Specification of Closed shed shall be same as Closed shed with office and C&I room except Store office and Computer / System Room and C&I Room facilities and associated furnishing works and items.

### **2.00.09 SEMI-CLOSED SHED (Part - C of BOQ):**

Specification of Semi-closed shed shall be as above except:

- Side wall cladding shall be 600mm height below the eave's level all-round including gable ends.
- Semi-closed shed shall not to be provided with sliding door, store office, computer room and C&I room and all furniture etc.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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### 2.00.10 GENERAL

All works shall be carried out in proper workmanship. Items of works covered by the following specification shall be carried out as per the best practices and according to the direction of the Engineer In-charge / BHEL, Site Engineer and to his satisfaction. Unless otherwise specified in this section or in the description of item, the cost of stage of works including all materials mentioned hereunder shall be deemed to have been included in the rates of items provided in the schedule.

**Bidders may take note of the following points while sending their offers:**

- a) The quoted prices shall include receipt, unloading, stacking and handling of materials at site, assembly and erection with associated civil design works and all Taxes, duties, local taxes including Works Contract Tax (if any).
- b) Agency shall submit two sets of proposed drawings of Sheds along with civil, structural, cladding and furniture arrangements etc., to BHEL before commencement of work for approval. Successful bidder shall submit **five sets of final drawings** along with one soft copy in CD to BHEL immediately after finalization of design.
- c) Bidders are requested to gather all relevant information & prevailing local laws etc. in the specified regions. No claim shall be entertained on account of lack of knowledge of site condition.
- d) The above technical specification is a minimum requirement and idea for the bidders only. However, bidder may suggest better & economical design considering the durability of structural sheds in their offer.
- e) The materials and workmanship must be of good quality and accepted standards and specifications. The site engineer reserves the right to reject any material not up to the specification. All taxes, levies and duties on construction materials will be on contractor's account. After completion of work, the building and areas around them should be cleared of all rubbish, debris etc. and handed over in fit condition for occupation.
- f) Quoted Price shall be inclusive of all the above.

### 2.00.11 EXTRA WORKS:

**Bidder has to design the sheds in such a way that it should be elegant, easy to use, convenient and fulfill all functional requirements. No extra claim shall be entertained over and above the final quoted/negotiated price.**

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# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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**2.00.12 Samples:** Sample of the materials to be used shall be submitted by bidders during Techno-commercial discussions if asked by BHEL.

**2.00.13 Inspection & acceptance of goods:** It is subject to BHEL inspection at supplier's works before dispatch or on receipt of materials at destinations as the case may be, as per the agreed/approved quality plant. Final/ stage inspection will be carried out at the destination/ supplier's works by the authorized inspection officials in line with agreed quality plant. Wherever preliminary or stage inspection is to be carried out at supplier's work, the same is subject to final acceptance after receipt of material at destination and the decision of purchaser shall be final. Since delivery period includes the time for pre-dispatch inspection by BHEL, the supplier shall intimate the readiness of materials for inspection well in advance to expedite the inspection process and to enable the supplier for timely delivery.

**2.00.14 Quality Plan:** Vendor to submit quality plant along with the offer for approval of BHEL. The quality plant is expected to cover generally specification of item, the stage inspection to be carried out, Guarantee/ Warranty/Test certificate/Inspection report, sampling plan as per relevant IS. The bidder/vendor shall furnish the details of the inspection facilities available with him in the quality plan, as applicable. The quality plan will be finalized before proceeding with execution of PO. The vendor is requested to ensure completion of QP in all aspect before proceeding with PO. The vendor should provide calibrated instrument etc. for carrying out the inspection as per the quality plan.

**2.00.15 Rejection:** The seller shall intimate the purchaser in writing within 15 days after receipt of rejection advice regarding the disposal of rejected material and action plan for replacement. If no information is received within this time, the purchaser shall be at liberty to return the material at the risk and cost of the seller after recovering the cost if any, including inward freight and other incidental charges incurred. The purchaser will not be responsible for the rejected material thereafter and no claim will rest on them.

### **2.00.16 Packing, Marking and Forwarding**

**Packing:** The supplier shall arrange for secure protecting packing of the goods suitable for tropical condition to avoid loss, damage or atmosphere action during transit by road. The packing standard shall comply with relevant National standards wherever available, carrier's

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – II: SCOPE OF WORK

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conditions of packing or established trade practice. The seller shall be liable to replace the material or reimburse the value of the loss notwithstanding whether insurance is arranged by him or not. The packing materials and cases and packing charges are included in the quoted price unless otherwise agreed.

**Marking:** The following marking shall be made on each package in black bold capital letter.

- A) Name of CONSIGNOR – ("Supplier's name)
- B) Name of CONSIGNEE – Bharat Heavy Electricals Limited - PSWR
- C) WEIGHT: Gross & Net

The above marking should be stenciled or written in bold letter on the package. Should the packages be too small, suitable cards/metal tags giving these details may be tagged or nailed. Copy of the packing slip should be kept in each package without fail.

**Dispatch Intimation:** Immediately after dispatch, the seller shall intimate AGM/FEX BHEL PSWR Nagpur. The details of the items dispatched Quantity, Order Reference and LR/RR no and date by Fax/e-mail.

**Name of the officials –**

**AGM/FEX - BHEL PSWR**

**Shrimohini complex**

**345, Kingsway, Nagpur. 440001**

**Mobile: 09422149180**

**Land line:**

**0712-3048624**

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL**

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<b>Sl.No</b>	<b>Description</b>	<b>Scope / to be taken care by</b>		<i>Remarks</i>
		<b>BHEL</b>	<b>Bidder</b>	
3.1	<b>PART I ESTABLISHMENT</b>			
3.1.1	<b>FOR CONSTRUCTION PURPOSE:</b>			
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	<b>FOR LIVING PURPOSES OF THE BIDDER</b>			
a	Open space for labour colony (as per availability)		Yes	
b	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL**

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.2.0	<b>ELECTRICITY</b>			
3.2.1	<b>ELECTRICITY FOR CONSTRUCTION PURPOSES 3 PHASE OF VOLTAGE 415/440 V (TO BE SPECIFIED WHETHER CHARGEABLE OR FREE)</b>			FREE
a	Single point source	Yes		Electricity shall be given at one point nearer to shed area. However it is responsibility of contractor to arrange power by using required capacity of DG sets if power is not available due to breakage or any other reasons.
b	Further distribution including all materials, Energy Meter, Protection devices and its service		Yes	
c	Duties and deposits including statutory clearances if applicable		Yes	
3.2.2	<b>ELECTRICITY FOR THE OFFICE, STORES, CANTEEN ETC OF THE BIDDER (TO BE SPECIFIED WHETHER CHARGEABLE OR FREE)</b>			<b>Free</b>
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	<b>ELECTRICITY FOR LIVING ACCOMMODATION OF THE BIDDER'S STAFF, ENGINEERS, SUPERVISORS ETC</b>		Yes	
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	<b>WATER SUPPLY</b>			

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL**

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
3.3.1	<b>FOR CONSTRUCTION PURPOSES: (TO BE SPECIFIED WHETHER CHARGEABLE OR FREE)</b>			FREE
a	Making the water available at single point	Yes		Construction water shall be given at one point near to shed area. However it is responsibility of contractor to arrange water of required quantity if water is not available due to distributions, breakage or any other reasons.
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.3.2	<b><u>Water supply for bidder's office, stores, canteen etc</u></b>			
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	
3.3.3	<b><u>Water supply for Living Purpose</u></b>		Yes	
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	<b>LIGHTING</b>			
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	



**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL**

Sl.No	Description <b>PART I</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
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	<b>COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER</b>			
a	Téléphone, fax, internet, intranet, e-mail etc		Yes	
3.6.0	<b>COMPRESSED AIR WHEREVER REQUIRED FOR THE WORK</b>			<b>Not Required</b>
3.7.0	<b>DEMOBILIZATION OF ALL THE ABOVE FACILITIES</b>		<b>YES</b>	
3.8.0	<b>TRANSPORTATION</b>			
a	For site personnel of the bidder		Yes	
b	For bidder's equipments and consumables (T&P, Consumables etc)		Yes	

Sl.No	Description <b>PART II</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
	<b>3.9.0 ERECTION FACILITIES</b>			
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-II-
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 <b>PART II</b> <b>3.9.0 ERECTION FACILITIES</b>	Scope / to be taken care by		Remarks
		BHEL	Bidder	
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			NOT APPLICABLE
d	Shipping lists etc for reference and planning the activities			NOT APPLICABLE
e	Preparation of site erection schedules and other input requirements		Yes	In consultation with BHEL
f	Review of performance and revision of site erection schedules in order to achieve the end dates and other commitments	Yes	Yes	In consultation with BHEL
g	Weekly erection schedules based on SI No. e		Yes	In consultation with BHEL
h	Daily erection / work plan based on SI No. g		Yes	In consultation with BHEL
i	Periodic visit of the senior official of the bidder to site to review the progress so that works 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

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – III: FACILITIES IN THE SCOPE OF CONTRACTOR/BHEL**

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<b>Sl.No</b>	<b>Description</b>  <b>PART II</b>  <b>3.9.0 ERECTION FACILITIES</b>	<b>Scope / to be taken care by</b>		<i>Remarks</i>
		<b>BHEL</b>	<b>Bidder</b>	
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

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**ALL REQUISITE T&Ps FOR THE SUBJECT JOB IS IN THE SCOPE OF CONTRACTOR**

**TECHNICAL CONDITIONS OF CONTRACT (TCC)**  
**Chapter – V : T & Ps AND MME TO BE DEPLOYED BY BHEL ON**  
**SHARING BASIS**

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**A: TOOL & PLANTS**

SN	DESCRIPTION
1	BHEL shall not provide any Tools and Plants (T&Ps). Contractor shall deploy all necessary T&P to meet the schedules & as prescribed by BHEL engineer and required for completion of work in time without any delay.

**B: MEASURING AND MONITORING DEVICES (MMD):**

AS PER REQUIREMENT TO BE FINALIZED AT SITE.

BHEL WILL NOT PROVIDE ANY MATERIAL OR 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 related works are completed to achieve the following **tentative** schedule:

**Milestone activities - Break up activities completion period:**

SI.No	ACTIVITY	TENTATIVE SCHEDULE OF COMPLETION
1	<b>Fabrication at works and delivery of fabricated structure at site (3 sheds)</b>	Delivery within 8 weeks for 1 <sup>st</sup> shed & thereafter in phased manner within 4 months from date of LOA
2	<b>Erection of Closed shed with office and C&amp;I room:</b> <ul style="list-style-type: none"><li>• Structural column erection.</li><li>• Tie runner for side cladding</li><li>• Roof truss</li><li>• Sheeting - Roofing and side cladding</li><li>• Sliding door, widows, doors, ventilators and exhaust fan etc</li><li>• All remaining works like painting, gutters etc</li></ul>	Within 3 <sup>rd</sup> months from date of issue of LOA.
3	<b>Erection of Closed shed:</b> <ul style="list-style-type: none"><li>• Structural column erection.</li><li>• Tie runner for side cladding</li><li>• Roof truss</li><li>• Sheeting - Roofing and side cladding</li><li>• Sliding door, ventilators and exhaust fan etc</li><li>• All remaining works like painting, gutters etc</li></ul>	Within 4 <sup>th</sup> months from date of issue of LOA.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter – VI: Time Schedule

4	<b>Erection of Semi-Closed shed:</b> <ul style="list-style-type: none"><li>• <b>Structural column erection.</b></li><li>• <b>Tie runner for side cladding</b></li><li>• <b>Roof truss</b></li><li>• <b>Sheeting - Roofing, side cladding</b></li><li>• <b>All remaining works like painting, gutters etc.</b></li></ul>	Within 5 <sup>th</sup> months from date of issue of LOA.
5	<b>For every additional 1 no. shed (of any category)</b>	1 month beyond initial five month from date of LOA.

THE OVERALL CONTRACT PERIOD FOR INITIAL 3 SHEDS FOR A PARTICULAR PROJECT SHALL BE **5 (Five) 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

**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

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### 7.00 Stages of Progressive Payments (applicable to each shed)

#### ❖ Closed shed with office and C&I room

- a) On Supply and receipt at site of fabricated structural materials like structural members , cladding and roofing sheets, wall paneling as per approved drawings/ BOQ - **60%** (of accepted price)
- b) Completion of erection of structural items, roof and side cladding – **20%**
- c) Wall paneling for rooms etc including furnishing and finishing works – **10%**
- d) Handing over to BHEL in all respect – **5.0%**
- e) Balance amount of **5%** payment will be released after the guarantee period of 12 months as per the provision of GCC. The guarantee period shall commence from the date of completion and handed over of each shed to BHEL.

#### ❖ Closed shed & Semi - Closed shed

- a) On Supply and receipt at site of fabricated structural materials like structural members , cladding and roofing sheets, wall paneling as per approved drawings/ BOQ - **70%** (of accepted price)
- b) Completion of erection of structural items, roof and side cladding including finishing works – **20%**
- c) Handing over to BHEL in all respect – **5.0%**
- d) Balance amount of **5%** payment will be released after the guarantee period of 12 months as per the provision of GCC. The guarantee period shall commence from the date of completion and handed over of each shed to BHEL

The RA bill payment shall be made as made as per Cl no 10.0 of Chapter –X of SCC ( page-44 ) & GCC cl no: 2.22, 2.23 page 28-29.



# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: Taxes and Other Duties

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### TAXES, DUTIES, LEVIES

#### 8.0

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

#### 8.1.1

The contractor shall pay all (save the specific exclusions as enumerated in this contract) taxes, fees, license charges, deposits, duties, tools, royalty, VAT/WCT, 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 (**i.e. rate quoted by bidder shall be inclusive of all Taxes and Duties, VAT/WCT except Service Tax**).

However, provisions regarding Service Tax on output services and goods shall be as per following clauses.

#### 8.1.2 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.**

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: Taxes and Other Duties

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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.

### 8.1.3 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.

### 8.1.4 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.

## 8.2 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

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-VIII: Taxes and Other Duties

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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 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.

# TECHNICAL CONDITIONS OF CONTRACT (TCC)

## Chapter-IX DRAWINGS

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FOLLOWING DRAWINGS ARE ENCLOSED WITH THE TENDER.

SL.NO.	DRAWING/SKETCH No.	TITLE
1.	BHEL/PW/PEB – COS –01	FRONT ELEVATION OF CLOSED SHED WITH OFFICE AND C & I ROOM
2.	BHEL/PW/PEB – COS –02	PLAN OF CLOSED SHED WITH OFFICE AND C & I ROOM
3.	BHEL/PW/PEB – CS --01	FRONT ELEVATION OF CLOSED SHED
4.	BHEL/PW/PEB – CS --02	PLAN OF CLOSED SHED
5.	BHEL/PW/PEB – SS --01	FRONT ELEVATION OF SEMI-CLOSED SHED
6.	BHEL/PW/PEB – SS --02	PLAN OF SEMI- CLOSED SHED

These drawings are for tendering purpose. The work shall be executed with the approval of drawings by BHEL during execution.