TENDER SPECIFICATION

NO: BHE/PW/PUR/WR-PEB/762

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 AND ITS ASSOCIATED CIVIL AND ELECTRIFICATION 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,
- o Special conditions of Contract,
- o General conditions of Contract
- o 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 Vol-IA- <u>762)</u>	1			
NIL	Notice Inviting Tender	(Part of <u>Vol-IA-</u> <u>762)</u>	13			
I-A	Technical Conditions of Contract	Vol-IA-762	<mark>60</mark>			
I-B	Special Conditions of Contract	Vol-IBCD-762	47			
I-C	General Conditions of Contract	(Part of <u>Vol-</u> <u>IBCD-762</u>)	29			
I-D	Forms & Procedures	(Part of <u>Vol-</u> <u>IBCD-762</u>)	54			
II	Price Bid Specification	Vol-II-762				

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

- \$: "Vol I -B,C, D" of Part-I (Vol- I) Hosted in BHEL web page (<u>www.bhel.com</u>) separately as a part of Technical Bid.
- @: **Price bid is** issued as a separate hard copy booklet 'Tender Specifications Volume-II (Price Bid-762)'. Hosted in BHEL web page (www.bhel.com) separately as titled "**VOL-II-PRICE BID-762**"

Tender Specification Issue Details

Tender Specification No: BHE/PW/PUR/WR-PEB/762

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 AND ITS ASSOCIATED CIVIL AND ELECTRIFICATION 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 TENDER SUBMISSION	Refer Notice Inviting Tender			
THESE TENDER SPECIFICATION	ON DOCUMENTS CONTAINING VOLUME-I AND VOLUME- II ARE ISSUED TO:			
M/s				
PLEASE NOTE: THESE TENDER SPECS DOCU	MENTS ARE NOT TRANSFERABLE.			
For Bharat Heavy Electric	cals Limited			

DY. GENERAL MANAGER (Purchase)

Place: Nagpur

Date:

Rev 00 6th July 2010

NOTICE INVITING TENDER

Bharat Heavy Electricals Limited



Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 5 of 45

Ref: BHE/PW/PUR/WR-PEB/762. Dt:/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/762	
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 AND ITS ASSOCIATED CIVIL AND ELECTRIFICATION 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		
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-II	Price Schedule (Absolute value).	Applicable
iv	Issue of Tender Documents	1. <u>Sale from BHEL PS Regional office at :</u> Start : 04/09/2010	Applicable

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

Tender Specification No : BHE/PW/PUR/WR-PEB/762

Closes: 18/09/2010. , Time:17.00 Hrs 2. From BHEL website (www.bhel.com) Tender documents can however be downloaded from website till due date of submission V DUE DATE & TIME OF OFFER SUBMISSION VI OPENING OF TENDER OF OFFER SUBMISSION OPENING OF 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	
Tender documents can however be downloaded from website till due date of submission V DUE DATE & TIME OF OFFER SUBMISSION VI OPENING TENDER OF TENDER Tender documents can however be downloaded from website till due date of submission Applicable Place: BHEL- HQ-NAGPUR Applicable 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	
rom website till due date of submission Due date: 20/09/2010, Time: 15.00Hrs OF OFFER SUBMISSION VI OPENING TENDER OF TENDER OF OFFER Submission I 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	
v DUE DATE & TIME OF OFFER SUBMISSION vi OPENING TENDER Date :20/09/2010, Time :15.00Hrs Place : BHEL- HQ-NAGPUR 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	
OF OFFER SUBMISSION VI OPENING TENDER OF 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	
VI OPENING TENDER OF 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	
vi OPENING TENDER OF 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	
TENDER 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	
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	
(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	
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	
on next working day at the same time. (2) Bidder may depute representative to witness the	
(2) Bidder may depute representative to witness the	
an an in or of tandar	
opening of tender	
vii EMD AMOUNT Rs 2,00,000/- (Rupees Two Lakhs Only) Applicable	
viii COST OF TENDER Rs 2000/ Applicable	
ix LAST DATE FOR Date: (Atleast 5 days before the due date of offer	
SEEKING submission Applicable	
CLARIFICATION Along with soft version also, addressing to	
undersigned & to others as per contact address given	
below	
x SCHEDULE OF Pre Date: Not applicable.	
Bid Discussion (PBD) Not applicable.	
xi INTEGRITY PACT & Not Applicable Not Applicable	
DETAILS OF	
INDEPENDENT	
EXTERNAL	
MONITOR (IEM)	
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

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 7 of 45

- 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.
- **Procedure for Submission of Tenders**: The Tenderers must submit their Tenders to Officer inviting Tender, 5.0 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)

Clno	(All pages to be signed and stamped)	Domorko		
SI no	Description	Remarks		
	Part-I A			
	ENVELOPE – I superscribed as : PART-I (TECHNO COMMERCIAL BID)			
	TENDER NO : NAME OF WORK :			
	PROJECT: DUE DATE OF SUBMISSION:			
	CONTAINING THE FOLLOWING:-			
i.	Covering letter/Offer forwarding letter of Tenderer.			
ii.	Duly filled-in `No Deviation Certificate' as per prescribed format to be placed after document under sl no (i) above.			
	 Note: a. In case of any deviation, the same should be submitted separately for technical & commercial parts, indicating respective clauses of tender against which deviation is taken by bidder. The list of such deviation shall be placed after document under sl no (i) above. It shall be specifically noted 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 of Contract</u> (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms			
L	1 - 7 - 2 - 3 - 2 - 3 - 3 - 3 - 3 - 3 - 3 - 3	L		

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

Tender Specification No : BHE/PW/PUR/WR-PEB/762

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

	PART-I B
	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:	

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

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 9 of 45

i	Envelopes I 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 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 1st Jan- 2011 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) 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. <u>Weightage "B" for Quarterly Performance Reports of Vendors</u>: 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.
 - 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 'R**s**r' = $(X_1 + X_2 + ... + X_n)$ 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 'R_{BHEL}'= (Rer+ Rwr+ Rsr+ Rnr) divided by 4

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 10 of 45

(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_{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 \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 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 Auxilliaries) or Synchronisation (for all other jobs including Civil) shall be considered.
- 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.
- 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

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 11 of 45

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</u> <u>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 (IEM) for the subject tender is as given at point (xi) of 1 above.</u>
- 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.
- 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.

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 12 of 45

.....

- 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.

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

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 13 of 45

ANNEXURE - 1

PRE QUALIFYING CRITERIA

JOB	DESIGN, SUPPLY, MANUUFACTURING, 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 AND ITS ASSOCIATED CIVIL AND ELECTRIFICATION 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.
TENDER NO	BHE/PW/PUR/WR-PEB/762

SL NO	PRE QUALIFICATION CRITERIA		Bidders claim in respect of fulfilling the Criteria (BIDDER MUST FILL UP THE DBLANK COLUMNS)	
			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 applicable)	of Integrity Pact duly signed (if	NOT APPLICABLE FOR THIS TENDER	
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 (Bidder should meet QR – C-1 or C-2 as below) C.1 Bidder must have successfully executed Supply & Erection of Factory Made Pre Fabricated Structural Sheds (PEB Sheds) including Civil works with Permanent Color Coated Sheets for Roofing & Cladding including associated civil work for foundation floor etc in the last seven years as on 31/08/2010 as below. i) Single work order of not less than Rs 1.30 Crore or of more value.			
	ii) iii)	OR Two work orders of of not less than Rs 0.80 Crore each OR Three work orders of of not less		
	"")	than Rs 0.65 Crore each OR		

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

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 14 of 45

	C.2 Bidder should have		
	A. Manufactured, supplied & erected PEB sheds with pre painted Galvanized Iron Sheet / Galvalum sheet of not less than Rs 90.00 lakhs in a single order OR two separate orders of Rs 45.00 lakhs each in the last seven years as on 31/08/2010 AND		
	B. Executed Civil works of not less than Rs 50.00 lakhs in a single order in the last seven years as on 31/08/2010		
	Note: In case bidder has experience of C.2 A but does not meet QR of C.2 B, then such bidder (The first party) may enter into a consortium with an experienced civil agency (Second party) who independently has experience of C.2 B.		
	{ For further details refer NIT clause no: 23 & Form F-22 }		
D.1	FINANCIAL TURNOVER Bidders must have achieved an average annual financial turnover (Audited) of Rs 50.00 Lakhs 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 based on latest Audited Accounts.		
E	Approval of Customer 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	APPLICABLE (Kindly submit as per format F-22)	
	Explanatory Notes for QR 1. The word 'executed' means the bidder should have achieved the or closed 2. Bidder to submit Audited Balance Sheet and Profit and Loss Acc 3. BIDDER SHOULD ESSENTIALLY MEET ALL THE PQR (i.e. ABOVE TO GET QUALIFIED AGAINST THIS TENDER	ount for the respective years as given above along with all ar	

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

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 15 of 45

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. BIDDER MUST FILL UP THE ABOVE FORMAT.

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

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 16 of 45

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: 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 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		Not Applicable	
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	

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

Tender Specification No : BHE/PW/PUR/WR-PEB/762 Page 17 of 45

18	Tie Ups / Consortium Agreement against this tender	Applicable for this tender AS Specified in PQR	
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)

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

Rev 00 6th JULY

TECHNICAL CONDITIONS OF CONTRACT (TCC)

BHARAT HEAVY ELECTRICALS LIMITED



SI No	DESCRIPTION	Chapter	No. OF PAGES
Volume-IA	Part-I: Contract specific details		
1	Project Information	Chapter-I	1
2	Scope of Works and Technical specifications	Chapter-II	10
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

Project Information
PROJECT INFORMATION
<u> </u>
BHRAT HEAVY ELECTRICALS LIMITED (BHEL) 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, MANAUFACTURING,
SUPPLYING AND ERICTION & COMMISSIONING OF POWER PLANTS IN THE COUNTRY AND
ABROAD.
INTENT OF THIS TENDER IS TO FINALIZE A RATE CONTRACT FOR PRE ENGINEERED
BUILDING (PEB) FOR THE PURPOSE OF STORAGE OF POWER PLANT EQUIPMENT &
MATERIALS AT VARIOUS FORTH-COMING POWER PROJECTS IN INDIA IN THE STATE OF
MADHYAPRADESH, CHHATTISGARH, MAHARASTRA, GUJARAT,GOA AND ALSO SITES ON
BORDER OF UTTERPRADESH, ORISSA & RAJASTAN 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 "LETTER OF AWARD (LOA)" 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 LOA. A
SEPARATE LOA SHALL BE PLACED FOR EACH SITE AS PER THE AGREED RATE, TERMS &
CONDITION.

Chapter – II : Scope of Works and Technical specifications

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 associated Civil works (foundations, plinth, flooring, masonry works, plinth protection etc.), required hardware, Pre-Painted Galvanized iron sheets (PPGI sheet) for roofing & wall cladding, sliding doors, windows, ventilators with canopy, exhaust fans over the wall cladding, internal Electrical fittings and fixtures, cabling, lighting panels with required MCBs, ELCBs etc 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 has to submit along with their offer detailed design, drawing, Bill of quantities for various items (Civil as well as structures) for evaluation of their offer and technical suitability.

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 civil & electrical works as per detail specification.

Part - B

Closed shed including associated civil & electrical works as per detail specification.

Part - C

Semi closed shed including associated civil & electrical works as per detail specification.

The quoted price of bidder for various sheds with associated civil and Electrical works shall include all applicable Duties and Taxes (FOR TAXES & DUTIES PL REFER CHAPTER-X) except the Freight charges for transportation of Pre-Fabricated materials from works which shall be paid as per actual on production of valid documentary proof.

Chapter – II: Scope of Works and Technical specifications

- > 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).
- Offers shall be accompanied with detailed design and drawing duly vetted by reputed registered Structural Designer / any Govt institution. Incomplete offer shall be liable to be rejected by BHEL.

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.

2.00.1A) <u>Tentative Requirement of various categories of sheds for coming one year is as</u> below:

Closed shed with office and C&I room (Part-A) - 5 Nos
 Closed shed (Part-B) - 12 Nos
 Semi closed shed (Part-C) - 10 Nos

The quantities of various types of sheds mentioned above are only indicative and it may vary according to arrival of power plant projects to PSWR and requirement as per rating of the projects.

Bidders may please consider the above quantities while offering their prize for individual sheds.

2.00.01B)

Bidder has to quote prices in terms of percentage +/- over and above the estimated costs as given in the price bid- Vol-II.

LOWEST BIDDER (L-1) SHALL BE EVALUATED ON THE BASIS OF SUM of Part-A + Part-B + Part-C of Price Bid- Vol-II

2.00.02 MODE OF OPERATION OF THIS RATE CONTRACT

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

- First work 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 ie L-2 & L-3 (i.e. other than L1 bidder) shall be given opportunity to accept final negotiated price of L-1 bidder. In case L-2 or L-3 or both (i.e. L-2 & L-3) do not agree to match final L-1 price then other bidders ie L-4 ,L-5 will be given opportunity to match L-1 price. This mechanism shall be continued till two more bidder other than L-1 agrees to match L-1 price. This rate contract shall be operated between three bidders and work shall be awarded to these three bidders on rotation basis as per discretion of BHEL.

Chapter – II: Scope of Works and Technical specifications

- 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 one 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.
- PVC as per GCC shall not be applicable for one year from the date of offer submission. PVC as per Civil Package –B** of GCC cl no 2.17 (Page 24-25) shall be applicable from one year from the date of offer submission up to completion of work , however for the period of delay attributable to contractor no PVC shall be paid. Base Index for PVC shall be the final date of offer submission ,
- Negotiation shall be done with L-1 bidder (Lowest Bidder) on the basis of %age of quoted value of individual shed.

2.00.03 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.
- Structural design work of sheds shall be preferably of Built-up sections for Rafter, column bracket out of ASTAM-572 grade plates having min. strength 345 Mpa, Hot rolled sections conforming to IS 2062 with yield strength 250 Mpa for main columns, sag rod, braces rods conforming to IS 2062 with yield strength 250 Mpa and Cold Formed Sections made out of MS plates conforming to IS 2062 with yield strength 250 Mpa for Purlines, side runners, eave struts etc. The Design has to be vetted by reputed civil design agency / Registered Government Engineer / Institution.
- 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.
- All designs have to be carried out as per relevant IS codes.

Chapter – II: Scope of Works and Technical specifications

2.00.04 CIVIL WORK

Design & Execution of civil works shall be carried out as per latest IS codes, standard specification, drawings and as per the instruction of Engineer In-charge.

- a. All foundation shall be RCC and height of RCC columns/pedestal shall be +600mm from existing GL (Avg. ground level around the shed) Ref. drawing
- b. Minimum depth of foundation 1.5m from GL.
- c. Minimum grade of Concrete:
 - i. RCC 1:1:2/ M25 for foundation, column, and plinth beam etc.
 - ii. PCC

Foundation bed - 1:4:8

Flooring - 1:2:4 with Neat cement finish

- d. Minimum grade of cement OPC 43
- e. Minimum grade of steel Fe 415
- f. Minimum strength of bricks (burnt clay brick/fly ash bricks) 50 Kg / CM²
- g. Minimum cement / sand mortar ratio:
 - i. Brick masonry (refer drg.)
 - 1. 230 mm thick wall: 1:6.
 - 2. 115 mm thick wall: 1:4
 - ii. Cement plastering
 - 1. Internal 12 mm thick of 1:4
 - 2. External 18 mm thick of 1:4
 - 3. For grouting and repairing: 1:2
- h. Flooring consist of
 - i. 100mm thick PCC of 1:2:4 with Neat cement finish in alternate panels of size 3.0mx3.0m.
 - ii. 230mm thick compacted stone soling with murrum packing below concrete flooring.
 - iii. Compacted earth filling using excavated soil below soling.
- i. Painting cement based white / color paint shall be done over the Exposed surface of masonry.
- j. RCC ramp of suitable slope for maneuverings of HYDRA and other normal loaded vehicles/lorries shall be provided
- k. 100mm thick and 600mm wide PCC 1:3:6 (20mm down aggregate) plinth protection all around the sheds with smooth finish.
- I. Bidders are advised to use some hard materials like Murum, Stone Soling etc. to achieve min. required SBC of soil at foundation level.
- m. HDPE Rain Water down Pipe shall be provided with suitable gutters all around the sheds.

Chapter – II: Scope of Works and Technical specifications

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. Sheeting 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 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.

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/m² **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 Works and Technical specifications

- Gutters: 26G metallic Eaves gutter including all fixing accessories like clamps, drop end etc.
- 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 ± 2 kg/M³. 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±2 kg/M³) 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 arrangement. Safety Aluminum Grills / guard bars of suitable sections shall be

Chapter – II: Scope of Works and Technical specifications

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) X0.60M (W) X0.750M (H) with a drawer of 3 partitions and also having provision for CPU and Key board 1No.
 - Executive Chair

 1No.
 - File cabinet 900mm length X450mm width X 900 mm depth with having two compartments – 1No.
 - Single side steel file /book rake consisting of 3 rakes of size
 900mm width X1850mm height X316mm 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 eve'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.

Chapter – II: Scope of Works and Technical specifications

2.00.10 ELECTRICAL WORK

Supply & installation of electrical items including wiring in PVC conduit are to be carried out as per approved drawings and executed through licensed electricians.

2.00.10.1 CLOSED SHED WITH OFFICE AND C&I ROOM:

- Bidder to supply & install electrical items like Main switch (30A TPN), ELCB, wires, conduit, tees, bends, clamps, JBs, Switch boards, earthing wires etc. for
 - Medium Bay HPSV lamps with fittings in inside of shed and 1 no at portico - 19 nos.
 - Heavy duty double ball bearing EXHAUST FAN of size 600mm of Crompton, Bajaj, Phillips or approved equivalent shall be installed and commissioned on longer side walls at suitable height - 4nos.
 - Tube light with fittings of standard size (4' length) at store In-charge room, computer room and C&I room – 14 Nos.
 - Ceiling fan with fittings of standard size (48" length) at store Incharge room and computer room 4 Nos.
 - Heavy duty plug points & sockets shall be provided at store room, computer room and C&I room for computes and AC etc. – 10Nos.
- Suitable capacity Power Distribution Board and Wall Mounting Type Lighting Panels of L&T/SIMENS/MDS/INDO / GE make with Earthing Provision shall be provided.
- Electrical cables/wires of required size (2.5/4/6/10/16/35 sq.mm etc) shall confirm to Finolex / Havells / Universal / Delton / Paramount and fixtures/fittings shall be of Havells /Crompton/ Bajaj/ Philips or any other approved make.
- All fitting and fixtures and electrical related items and accessories shall be approved by BHEL Engineer In-charge.

2.00.10.2 CLOSED SHED:

Closed shed is same as Closed shed with office and C&I room except the electrical work concerned to Store office and Computer / System Room and C&I Room.

2.00.10.3 SEMI-CLOSED SHED:

TECHNICAL CONDITIONS OF CONTRACT (TCC) Chapter – II: Scope of Works and Technical specifications

- Bidder to supply & install electrical items like Main switch (30A TPN), ELCB, wires, conduit, tees, bends, clamps, JBs, Switch boards, earthing wires etc. for
 - Medium Bay HPSV lamps with fittings in inside of shed and 1 no at portico - 19 nos.
- Suitable capacity Power Distribution Board and Wall Mounting Type Lighting Panels of L&T/SIMENS/MDS/INDO/ GE make with Earthing Provision shall be provided.

2.00.11 **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 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, furniture arrangements, Electrical, other fittings 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.

Chapter – II: Scope of Works and Technical specifications

2.00.12 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.

- 2.00.13: **Samples:** Sample of the materials to be used shall be submitted by bidders during Techno-commercial discussions if asked by BHEL.
- 2.00.14: **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/ suppler'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.
- 2.00.15: **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/ Warrantee/Test certificate/Inspection report, sampling plan as per relevant IS. The bidder/vender shall furnish the details of the inspection facilities available with him in the quality plan, as applicable. The quality plan will be finalized before persuading 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.
- 2.00.16: **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.

Chapter – II: Scope of Works and Technical specifications

2.00.17: 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 conditions of packing or established trade practice. The seller shall be liable to replace the material or reimburse the value of the loss not withstanding whether insurance is arrange 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 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 failed.

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 –
Mr. VS Mahamuni
AGM/FEX - BHEL PSWR
Shrimohini complex
345, Kingsway Nagpur. 440001
Mobile: 09422149180

Land line: 0712-3048624

Sl.No	Description	-	/ to be care by	
31.110	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			
а	Open space for labour colony (as per availability)		Yes	
b	Labour Colony with internal roads, sanitation, complying with statutory requirements		Yes	

	Description	Scope / to be		
SI.No	•	taken care by		Remarks
	PART I	BHEL	Bidder	Kemarks
3.2.0	ELECTRICITY			
3.2.1	ELECTRICITY FOR CONSTRUCTION PURPOSES 3 PHASE OF VOLTAGE 415/440 V (TO BE SPECIFIED WHETHER CHARGEABLE OR FREE)			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	
С	Duties and deposits including statutory clearances if applicable		Yes	
3.2.2	ELECTRICITY FOR THE OFFICE, STORES, CANTEEN ETC OF THE BIDDER (TO BE SPECIFIED WHETHER CHARGEABLE OR FREE)			Free
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	
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			

	Description	Scope / to be		
SI.No			care by	Remarks
	PART I	BHEL	Bidder	
3.3.1	FOR CONSTRUCTION PURPOSES: (TO BE SPECIFIED WHETHER CHARGEABLE OR FREE)			FREE
a	Making the water available at single point	Yes		Construction water shall be given at one point near to shed area.
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	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.
3.3.2	Water supply for bidder's office, stores, canteen etc			
а	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	Water supply for Living Purpose		Yes	
а	Making the water available at single point		Yes	
b	Further distribution as per the requirement of work including supply of materials and execution		Yes	
3.4.0	LIGHTING			
a	For construction work (supply of all the necessary materials) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	
b	For construction work (execution of the lighting work/ arrangements) 1. At office/storage area 2. At the preassembly area 3. At the construction site /area		Yes	

Sl.No	Description	Scope / to be taken care by		Barrandra	
Sinto	PART I	BHEL	Bidder	Remarks	
С	Providing the necessary consumables like bulbs, switches, etc during the course of project work		Yes		
d	Lighting for the living purposes of the bidder at the colony / quarters		Yes		
3.5.0	COMMUNICATION FACILITIES FOR SITE OPERATIONS OF THE BIDDER				
а	Téléphone, fax, internet, intranet, e-mail etc		Yes		
3.6.0	COMPRESSED AIR WHEREVER REQUIRED FOR THE WORK			Not Required	
3.7.0	DEMOBILIZATION OF ALL THE ABOVE FACILITIES		YES		
3.8.0	TRANSPORTATION				
a	For site personnel of the bidder		Yes		
b	For bidder's equipments and consumables (T&P, Consumables etc)		Yes		

	Description	Scope / to be taken care 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 PI refer Chapter-II-	
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			NOT APPLICABLE	

	Description	-	/ to be care by	
SI.No	PART II 3.9.0 ERECTION FACILITIES	BHEL	Bidder	Remarks
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 Sl 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
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

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 according to the scope of work of this tender specification.

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

A: TOOL & PLANTS

SN	DESCRIPTION
1	BHEL shall not provide any Tools and Plants (T&Ps).

B: MEASURING AND MONITORING DEVISES (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 FROM DATE OF LOA
1	Fabrication at works and delivery of fabricated structure at site (3 sheds)	Delivery within 8 weeks for 1 st shed & thereafter in phased manner within 4 months
1	Civil work:(Common for all 3 sheds) Sub structure – RCC foundation related works. Super structure- flooring, plinth protection and brick masonry work etc	1 st Foundations shall be made ready within 2 months 2 nd & 3 rd foundation by 3 months
2	Closed shed with office and C&I room: Structural column erection. Tie runner for side cladding Roof truss Roofing and side cladding Sliding door, widows, doors, ventilators and exhaust fan etc Electrification work All remaining works like painting, gutters etc	Within 3 rd months from date of issue of LOA.

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

3	Structural column erection. Tie runner for side cladding Roof truss Roofing and side cladding Sliding door, ventilators and exhaust fan etc Electrification work All remaining works like painting, gutters etc	Within 4 th months from date of issue of LOA.
4	Semi-Closed shed: Structural column erection. Tie runner for side cladding Roof truss Roofing, side cladding and ventilators. Electrification work All remaining works like painting, gutters etc.	Within 5 th months from date of issue of LOA.
5	For every additional 1 no. shed (of any category)	1 month beyond initial five month from date of LOA.

THE OVERALL CONTRACT PERIOD FOR INITIAL 3 SHEDS FOR A PERTICULAR 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.

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

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

7.00 Stages of Progressive Payments (applicable to each shed)

- a) On Supply and receipt of total super structure materials like structural members, cladding and roofing sheets, wall paneling and electrical fitting and fixtures at site as per approved drawings / BOQ - 40% (of accepted price)
- b) Complication of all Civil related works (floor finish level) 20.0%
- c) completion of erection of structural items, roof and side cladding and wall paneling for rooms etc including internal electrification works -20.0%
- d) Completion of electrical works 10%
- e) Handing over to BHEL in all respect 5.0%
- f) 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 & DUTIES

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 & DUTIES

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.

TECHNICAL CONDITIONS OF CONTRACT (TCC) Chapter-IX DRAWINGS

FOLLOWING DRAWINGS ARE ENCLOSED WITH THE TENDER.

01 110	DDAMINO/OKETOLLNI-	TITLE
SL.NO.	DRAWING/SKETCH No.	TITLE
1.	BHEL/PW/PEB – COS –01 FRONT ELEVATION	N 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 - CS01 FRONT ELEVATION	N OF CLOSED SHED
4.	BHEL/PW/PEB - CS02 PLAN OF CLOSED	SHED
5.	BHEL/PW/PEB - SS01 FRONT ELEVATION	N OF SEMI-CLOSED SHED
6	BHEL/PW/PER - SS02 PLAN OF SEMI- CL	OSED SHED

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