

# **TENDER SPECIFICATION**

**No. BHE/PW/PUR/BRD-RWH/985/OJ**

**FOR**

Survey at 2 locations as specified, Schematic design and installation of Rain water Harvesting system with all the required manpower and equipments all complete at BHEL Residential Township at BARODA (Gujarat)

**PART: I**

**(TECHNICAL BID SPECIFICATION, NOTICE INVITING TENDER & GENERAL  
CONDITIONS OF CONTRACT)**



**BHARAT HEAVY ELECTRICALS LIMITED**  
(A Govt. of India Undertaking)  
**POWER SECTOR - WESTERN REGION**  
345-KINGSWAY, NAGPUR-440 001

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(A Govt. of India Undertaking)  
POWER SECTOR - WESTERN REGION  
345, KINGS WAY - NAGPUR 440 001

**TENDER SPECIFICATION NO - BHE/PW/PUR/BRD-RWH/985/OJ**

**ISSUE DETAILS**

**NAME OF THE WORK:**

Survey at 2 locations as specified, Schematic design and installation of Rain water Harvesting system with all the required manpower and equipments all complete at BHEL Residential Township at BARODA (Gujarat)

THESE TENDER SPECIFICATION DOCUMENTS CONTAINING **PART-I(Section-A and Section-B)** AND **PART-II** (Section-C) ARE ISSUED TO:

M/s.....

.....

.....

(THESE TENDER SPECIFICATION DOCUMENTS ARE NOT TRANSFERABLE)

FOR BHARAT HEAVY ELECTRICALS LIMITED

Addl General Manager (Purchase)

PLACE: NAGPUR

DATE :

<b>C o n t e n t s</b>			
<b>S N</b>	<b>Description</b>	<b>Section/ Appendix no</b>	<b>No. of pages</b>
1	Tender Specification Issue Details	-----	01
2	NOTICE INVITING TENDER DETAILS	-----	08
3	CHECK LIST	-----	01
4	Important information	-----	01
5	Declaration about Relationship in BHEL	-----	01
6	Declaration by Bidder's authorized signatory	-----	01
7	Certificate of bidder's knowledge about site		01
8	Certificate of No-Deviation	-----	01
9	Project Information	-----	01
10	<b>Special Conditions of Contract</b> (Scope of Services, Time Schedule, Payment Terms, Technical and Commercial Conditions, EMD, Security Deposit etc.)	SECTION-A	17
11	General Conditions of Contract	SECTION-B	40
12	Price Bid Specification	PART-II	@

**LEGEND:**

@: Issued as separate booklet 'Tender Specifications Part-II.

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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 4 of 35**

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 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/BRD-RWH/985/OJ
ii	Broad Scope of job	Survey at 2 locations as specified, Schematic design and installation of Rain water Harvesting system with all the required manpower and equipments all complete at BHEL Residential Township at BARODA (Gujarat)
iii	DETAILS OF TENDER DOCUMENT	
PART-I(Special Conditions of Contract)		
Secti on-A	SCC consisting of Scope of work, Technical Specification, Procedures, Bill of Quantities, Terms of payment, etc	Applicable
Secti on-B	General Conditions of Contract (GCC)	Applicable
PART-II		
Secti on-C	Price Schedule (Absolute value).	Applicable
iv	Issue of Tender Documents	07/03/2012 Applicable
v	DUE DATE & TIME OF OFFER SUBMISSION	Date : 14.03.2012 , Time :15.00Hrs Place : BHEL-PSWR, Nagpur Tenders being submitted through representative shall be handed over to any of the following BHEL officials after making entry/registration at the reception: Ranade/ Sr.Manager (Purchase) Vivek K Kamal / SrEngineer(Purchase) Applicable
vi	OPENING OF TENDER	1 hours after the latest due date and time of Offer submission Notes: (1) In case the due date of opening of tender becomes a non-working day, tenders shall be opened on next working day at the same time. (2) Bidder may depute representative to witness the opening of tender Applicable
vii	EMD AMOUNT	20,,000/- (Rupees Twenty Thousand Only) Applicable
viii	COST OF TENDER	Rs. 2000/- Applicable
ix	LAST DATE FOR SEEKING CLARIFICATION	Date: Atleast 3 days before the due date of offer submission Along with soft version also, addressing to Applicable

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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 5 of 35**

		<i>undersigned &amp; to others as per contact address given below</i> <i>Mr R K RANADE (<a href="mailto:rkranade@bhelpswr.co.in">rkranade@bhelpswr.co.in</a>)</i> <i>Mr Vivek Kamal(<a href="mailto:vivekf@bhelpswr.co.in">vivekf@bhelpswr.co.in</a>)</i>	
<b>x</b>	<b>Latest updates</b>	<b>NA</b>	

- 2.0 The offer shall be submitted as per the instructions of tender document and as detailed in this NIT. Bidders to note specifically that all pages of tender document, including these NIT pages of this particular tender together with subsequent correspondences shall be submitted by them, duly signed & stamped on each page, as part of offer. **Rates/Price including discounts/rebates, if any, mentioned anywhere/in any form in the techno-commercial offer other than the Price Bid, shall not be entertained.**
- 3.0 Unless specifically stated otherwise, bidder shall remit cost of tender and courier charges if applicable, in the form of Demand Draft drawn in favour of Bharat Heavy Electricals Ltd, payable at Power Sector Regional HQ at Nagpur issuing the Tender, along with techno-commercial offer. Bidder may also choose to deposit the Tender document cost by cash at the Cash Office as stated above against sl no iv of 1, on any working day; and in such case copy of Cash receipt is to be enclosed with the Techno Commercial offer. Sale of tender Documents shall not take place on National Holidays, holidays declared by Central or State Governments and BHEL PS HQ at Nagpur, Sundays and second/ last Saturdays
- 4.0 Unless specifically stated otherwise, bidder shall deposit EMD through Demand Draft/Pay Order in favour of Bharat Heavy Electricals Ltd, payable at Nagpur. For other details and for 'One Time EMD' please refer General Conditions of Contract.
- 5.0 **Procedure for Submission of Tenders:** The Tenderers must submit their Tenders to Officer inviting Tender, as detailed below:
- PART-I consisting of 'PART-I A (Techno Commercial Bid)' & 'PART-I B (EMD/COST of TENDER)' in two separate sealed and superscribed envelopes (ENVELOPE-I & ENVELOPE-II)
  - PART-II (Price Bid) – in sealed and super scribed 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> 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	

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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 6 of 35**

	<p>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.</p> <p>b. BHEL reserves the right to accept/reject the deviations without assigning any reasons, and BHEL decision is final and binding.</p> <p>i). In case of acceptance of the deviations, appropriate loading shall be done by BHEL</p> <p>ii). In case of unacceptable deviations, BHEL reserves the right to reject the tender</p>	
iii.	<p>Supporting documents/ annexure/ schedules/ drawing etc as required in line with Pre-Qualification criteria.</p> <p>It shall be specifically noted that all documents as per above shall be indexed properly and credential certificates issued by clients shall distinctly bear the name of organization, contact ph no, FAX no, etc.</p>	
iv.	All Amendments/Correspondences/Corrigenda/Clarifications/Changes/ Errata etc pertinent to this NIT.	
v.	Integrity Pact Agreement (Duly signed by the authorized signatory)	If applicable
vi.	Duly filled-in annexures, formats etc as required under this Tender Specification/NIT	
vii.	Notice inviting Tender (NIT)	
viii.	Volume – I A : <u>Technical</u> Conditions of Contract (TCC) consisting of Scope of work, Technical Specification, Drawings, Procedures, Bill of Quantities, Terms of payment, etc	
ix.	Volume – I B : Special Conditions of Contract (SCC)	
x.	Volume – I C : General Conditions of Contract (GCC)	
xi.	Volume – I D : Forms & Procedures	
xii.	Volume – II (UNPRICED – without disclosing rates/price, but mentioning only 'QUOTED' or 'UNQUOTED' against each item	
xiii.	Any other details preferred by bidder with proper indexing.	

	<b>PART-I B</b>	
	<p><b><u>ENVELOPE – II superscribed as:</u></b> PART-I (EMD/COST of TENDER) TENDER NO : NAME OF WORK : PROJECT: DUE DATE OF SUBMISSION:</p> <p><b><u>CONTAINING THE FOLLOWING:-</u></b></p>	
i.	<p>1. Earnest Money Deposit (EMD) in the form as indicated in this Tender</p> <p style="text-align: center;"><b><u>OR</u></b></p> <p>Documentary evidence for 'One Time EMD' with the Power Sector Region of BHEL floating the Tender</p>	

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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 7 of 35**

	2. Cost of Tender ( Demand Draft or copy of Cash Receipt as the case may be)	
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	<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</b> (MAIN ENVELOPE / OUTER ENVELOPE) 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>o Envelopes I</li> <li>o Envelopes II</li> <li>o Envelopes III</li> </ul>	

**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 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

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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 8 of 35**

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.

- 10.0 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.
- 11.0 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.
- 12.0 Unless specifically mentioned otherwise, bidder's quoted price shall deemed to be in compliance with tender.
- 13.0 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, etc. and date of opening of price bids shall be intimated to only such bidders.
- 14.0** 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.
- 15.0 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.
- 16.0 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.
- 17.0 On submission of offer, further consideration will be subject to compliance to tender & qualifying requirement and customer's acceptance, as applicable.
- 18.0 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.



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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 9 of 35**

- 19.0 The bidder may have to produce original document for verification if so decided by BHEL.
- 20.0 BHEL reserves the right to reject any tender on the basis of unsatisfactory performance of the bidder in any ongoing job or any similar job in the last seven years or for furnishing false information/declaration in the offer.
- 21.0 **Liquidated Damages/Penalty:** BHEL will impose Liquidated Damages and Penalty as per suitable clauses in the respective Tender Specifications on account of delay, violation of contract conditions and non-performance attributable to the contractor.
- 22.0 **LATE TENDER:** Tender received after the specified date and time of submission shall not be considered in any circumstances.
- 23.0 A bidder must satisfy **all the Qualifying Requirements** stipulated under 'C', 'D' etc of this tender concurrently in order to get qualified.
- 24.0 **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 (Part-II)
  - d. Technical Bid (Part-I)
  - e. General Conditions of Contract (GCC)

for BHARAT HEAVY ELECTRICALS LTD  
(SCT)

**Enclosure**

01. **Annexure-1: Pre Qualifying criteria.**
02. **Annexure-2: Check List.**
03. **Annexure-3: Important Information.**

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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ Page 10 of 35

**ANNEXURE - 1**

**PRE QUALIFYING CRITERIA**

JOB	Transportation of Manitowoc M 250 tyre mounted crane from BHEL Site, Pipavav to BHEL Site, Sikka/Opal Dahej
TENDER NO	BHE/PW/PUR/BRLT-CRH/954

SL NO	PRE QUALIFICATION CRITERIA	Bidders claim in respect of fulfilling the PQR Criteria	
		Name and Description of qualifying criteria	Page no of supporting document
A	Submission of Integrity Pact duly signed	NOT APPLICABLE	
B	Assessment of Capacity of Bidder to execute the work as per sl no 9 of NIT	NOT Applicable	
C	<b><u>Technical</u></b> Bidder must have successfully carried out Schematic design and installation of Rain water Harvesting system at any place in last seven years as on 29/02/2012. Bidder shall furnish documentary evidence in support of the same	APPLICABLE	
D 1	<b><u>Financial TURNOVER</u></b>	NOT APPLICABLE	
2	NETWORTH Net worth of the Bidder based on the latest Audited Accounts as furnished for 'D1' above should be positive	NOT APPLICABLE	
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.	NOT APPLICABLE	
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	NOT Applicable	

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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 11 of 35**

	customer.		
F	Consortium criteria	<b>Not Applicable</b>	
	<b>Explanatory Notes for QR</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 B) Explanatory Notes for PQR 'D'- 'Financial' 1. Net Worth = Paid up share capital* + Reserves (* : Share Capital OR Partnership Capital OR Proprietor Capital as the case may be) 2. Profit shall be NET Profit (PAT + Non Cash Expenditure viz depreciation). 3. In case audited financial statement have not been submitted for all the three years as indicated in 'D1' above, then applicable audited statement submitted by the bidder against the requisite three year, will be averaged for three years.		

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.

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

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 12 of 35**

**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	
5	Validity of Offer	TO BE VALID FOR SIX MONTHS FROM LATEST DUE DATE OF TECHNICAL BID OPENING	
		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	Not Applicable	YES/NO
8	Copy of PAN Card	Not Applicable	YES/NO
9	Whether all pages of the Tender documents including annexures, appendices etc are read understood and signed	Applicable	YES/NO
10	Declaration by Authorised Signatory	Applicable	YES/NO
11	No Deviation Certificate	Applicable	YES/NO
12	Declaration confirming knowledge about Site Conditions	Applicable	YES/NO
13	Declaration for relation in BHEL	Applicable	YES/NO
14	Bank Account Details for E-Payment	Applicable	YES/NO
15	Power of Attorney for Submission of Tender/Signing Contract Agreement	Applicable	YES/NO
16	BIDDER HAS FAMILIARIZED HIMSELF WITH ALL RELEVANT LOCAL LAWS & CONDITIONS	Applicable	YES/NO
17	COPY OF SIMILAR WORK EXECUTED IN THE PAST 7 YEARS	Applicable	YES/NO

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

DATE :

AUTHORISED SIGNATORY  
(With Name, Designation and Company seal)

**BHEL PSWR  
Notice Inviting Tender**

Tender Specification No : BHE/PW/PUR/BRD-RWH/985/OJ **Page 13 of 35**

ANNEXURE 3:

**IMPORTANT INFORMATION**

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

**DECLARATION SHEET**  
(Refer Clause 1.19.8 of General Instructions to the Tenderer)

The Bidders are requested to furnish the following information while quoting, failing which their offer will be summarily rejected.

1. Whether any relative(s) of Partner/Director  
**/Owner is presently employed in BHEL?** : **YES/ NO**  
If so, his connection with the Firm **(If yes, please give particulars)**
2. Whether any BHEL employee is : **YES/NO** (If yes, please give  
Holding any share in Firm? particulars)

*Signature of the Tenderer*

**Note:**

1. Attach separate sheet, if necessary.
2. If the BHEL Management comes to know, at a later date, that the information furnished by the Bidder is false, suitable action will be taken according to law against the contractor

## **DECLARATION BY BIDDER'S AUTHORIZED SIGNATORY**

**TENDER SPECIFICATION No. BHE/PW/PUR/BRD-RWH/985/OJ**

I, \_\_\_\_\_ HEREBY CERTIFY THAT ALL THE INFORMATION AND DATA FURNISHED BY ME WITH REGARD TO THIS TENDER SPECIFICATION ARE TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE. I HAVE GONE THROUGH THE SPECIFICATIONS, CONDITIONS AND STIPULATIONS IN DETAIL AND AGREE TO COMPLY WITH THE REQUIREMENTS AND INTENT OF THE SPECIFICATION. I FURTHER CERTIFY **THAT I AM DULY AUTHORISED REPRESENTATIVE OF THE UNDERMENTIONED BIDDER AND A VALID POWER OF ATTORNEY TO THIS EFFECT IS ALSO ENCLOSED.**

DATE:

SIGNATURE OF AUTHORIZED SIGNATORY WITH SEAL

\*\*\*\*\*  
**CERTIFICATE CONFIRMING  
KNOWLEDGE ABOUT SITE CONDITIONS**

**TENDER SPECIFICATION No. BHE/PW/PUR/BRD-RWH/985/OJ**

We, \_\_\_\_\_ M/s

.....  
hereby declare and confirm that we have visited the project site(s) for which we have submitted our offer and acquired full knowledge and information about the site conditions.

We further confirm that the above information is true and correct and we shall not be eligible for any additional payment of any nature due to lack of knowledge or non-familiarization of site conditions.

BIDDER'S NAME AND ADDRESS: .....

SIGNATURE & OFFICIAL SEAL OF BIDDER'S  
AUTHORISED SIGNATORY

PLACE:

DATE:



\*\*\*\*\*  
**CERTIFICATE OF NO-DEVIATION**

**TENDER SPECIFICATION No. BHE/PW/PUR/BRD-RWH/985/OJ**

I/WE, M/s  
.....

HEREBY CERTIFY THAT NOTWITHSTANDING ANY CONTRARY INDICATIONS/ CONDITIONS ELSEWHERE IN OUR OFFER DOCUMENTS, I/WE HAVE NEITHER SET ANY TERMS AND CONDITIONS NOR THERE IS ANY DEVIATION TAKEN FROM THE CONDITIONS OF BHEL'S TENDER SPECIFICATIONS, EITHER TECHNICAL OR COMMERCIAL, AND I/WE AGREE TO ALL THE TERMS AND CONDITIONS MENTIONED IN BHEL'S TENDER SPECIFICATION WITH ASSOCIATED AMENDMENTS AND CLARIFICATIONS.

Signature of the Bidder

Date:

## **PROJECT INFORMATION**

### **BHEL Residential Township at BARODA (Gujarat)**

## **SPECIAL CONDITIONS OF CONTRACT**

**TENDER SPECIFICATION NO: BHE/PW/PUR/BRD-RWH/985/OJ**

**JOB:** Survey at 2 locations as specified, Schematic design and installation of Rain water Harvesting system with all the required manpower and equipments all complete at BHEL Residential Township at BARODA (Gujarat)

### **1. INTRODUCTION**

The Rain Water Harvesting System is to be installed in BHEL Township at Gotri, Baroda situated at Gotri Baroda (Gujarat) in the land area of approx. 2 Acres and to be handed over fully to BHEL after completion in all respect.

### **2. BROAD SCOPE OF WORK**

Design, Supply and installation of Rain Water Harvesting system including Surveying, Boring, Supplying and laying casing pipes and installation of filtration and recharging modules on the land area of 2 Acres at

BHEL TOWNSHIP  
AT  
GOTRI, BARODA, GUJARAT

### **3. DETAILED SCOPE OF WORK**

- 3.1** Geophysical, hydrological and Topographical Survey of 2 Acres land area approx. at BHEL Residential Colony -Gotri Vadodara for finalising the location for installation of Rain water harvesting system at 2 locations as per BHEL requirement.
- 3.2** Schematic design of rainwater harvesting systems, Supply & installation of Precast modular stepwells for sedimentation (horizontal filtration module) & for filtration and recharging earth (artificial recharging module) as per standard procedure and relevant IS Code of practice. Rate shall be inclusive of submission of schematic design & drawing to BHEL along with offer.
- 3.3** Providing 300 mm dia (12") bore hole by drilling with mud rotary rig or any other suitable method using bentonite solution upto the depth of 150 RFT approx. and then rimming the borehole and enlarging it to 450 mm dia (18") including supplying and laying of 200 mm (8" dia) 6 Kg pressure UPVC socketed Pipe of standard length of 6 mtr. (20 ft) and ISI Mark brand, necessary stainer pipes, filling gravels all around the casing pipe, flushing of bores etc. including all required accessories, T & P, manpower, etc. complete at 2 Locations, 150 RFT each bore hole. Supply and installation of precast modular step wells for sedimentation & for filtration and recharging earth as per standard procedure and relevant IS Code of practice.

**All the above works shall be measured and paid under relevant item of BOQ.**

### **4. PAYMENT TERMS**

95% Payment shall be made through A/c Payee cheque for running account bill. Balance 5% shall be released along with the final bill after completion of entire job satisfactorily as per the requirement of BHEL. Taxes as applicable shall be recovered from the bill.

BHEL is switching on to payment through Electronic Fund Transfer (EFT)/RGITS. In order to implement the new system, the following details are to be furnished by you pertaining to your Bank Accounts where proceeds will be transferred through our Banker:

1. **Name of the Company**
2. **Name of Bank**
3. **Name of Bank Branch & Branch Code**
4. **City**
5. **Account Number**
6. **Account Type**
7. **IFSC Code of the Bank Branch**
8. **MICR Code of the Bank Branch.**

#### **5. VARIATION IN QUANTITY**

The quantities against each item of the Rate Schedule are approximate and may vary up to any extent or may be deleted altogether. The agreed rate of each item shall remain firm for any variation in individual quantities. Compensations on account of such variation shall be dealt **as per clause no. 2.14 of GCC**. The Payment shall be made as per agreed item rates for the quantities actually executed and measurements by BHEL. The contractor has to take note of this and quote his rates accordingly.

#### **6. Responsibility of the Contractor**

The contractor shall engage all the unskilled, skilled and especially skilled labor including fabricators, welders and fitters etc. and supervisory staff. Only trained and competent personnel with previous experience in the job shall be employed. However, BHEL reserves the right to decide on the suitability of the workers and other personnel who will be employed by the contractor. BHEL reserves the right to insist on removal of any employee of the contractor at any time, if they found him unsuitable. The contractor shall be bound to follow the instruction of BHEL.

The contractor is required to quote their rates inclusive of cost of all materials, labor, etc. BHEL reserves the right to inspect and reject any material not found satisfactory.

#### **7. TIME SCHEDULE AND MOBILISATION**

Entire work shall be completed within **60 days** from the date of release of Work Order. Contractor shall reach site, make his site establishment and be ready to commence the work within **one week** from the date of fax Letter of Intent or as per directions of BHEL.

The contractor has to subsequently augment his resources in such a manner that the entire related works are completed to achieve the **tentative** schedule:

#### **8.00 TAXES, DUTIES, LEVIES (Rev 01 dated 15/03/2011)**

##### **8.01.1**

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

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

##### **8.01.2 Service Tax & Cess on Service Tax**

Service Tax and Cess on Service Tax as applicable on Services are excluded from contractor's scope; therefore **contractor's price/rates shall be exclusive of Service Tax and Cess on Services**. In case, it becomes mandatory for the contractor under provisions of relevant act/law to collect the Service Tax &

Cess from BHEL and pay the same to the concerned tax authorities, such applicable amount will be paid by BHEL at the prevailing Service Tax Rate (presently 10.3 %) on the admitted bill value.

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

- 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.

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

#### **8.01.3 VAT (Sales Tax /WCT)**

As regards Value Added Tax (VAT) on transfer of property in goods involved in Works Contract (previously known as Works Contract Tax) applicable as per local laws, **the price quoted by the contractor shall be exclusive of the same.** Where such taxes are required to be paid by the contractor, this will be reimbursed on production of proof of payment made to the authorities by the Contractor. In any case the Contractor shall register himself with the respective Sales Tax authorities of the state and submit proof of such registration to BHEL along with the first RA bill. The contractor has to take all necessary steps to minimize tax on input goods by purchasing the materials from any registered dealer of the concerned state only. In case contractor opts for composition, it will be with the prior express consent of BHEL. Deduction of tax at source shall be made as per the provisions of law unless otherwise found exempted. In case tax is deducted at source as per the provisions of law, this is to be construed as an advance tax paid by the contractor and no reimbursement thereof will be made unless specifically agreed to.

Since BHEL will reimburse the VAT paid by subcontractor to deptt. hence there will be no further liability of BHEL regarding VAT on goods transferred while executing civil works. **Subcontractor will give us form-3** to BHEL to substantiate our claim before the sales tax department during assessment that VAT liability has been discharged by our subcontractor and there is no further VAT liability on BHEL for the work.

#### **8.01.4 Modalities of Tax Incidence on BHEL**

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

#### **8.01.5 New Taxes/Levies**

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

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

No reimbursement/recovery on account of increase/reduction in the rate of taxes, levies, duties etc. on input goods/services/work shall be made. Such impact shall be taken care of by the Price

Variation/Adjustment Clause (PVC) if any. In case PVC is not applicable for the contract, Bidder has to make his own assessment of the impact of future variation if any, in rates of taxes/duties/ levies etc. in his price bid.

## **9.0 SECURITY DEPOSIT & BANK GUARANTEE**

### **9.1 Security Deposit: Please refer GCC.**

### **9.2 Contract Value for Security Deposit (SD):**

At the beginning of contract, the Security Deposit shall be calculated according to the awarded Contract Value. Subsequently amount of SD shall be regulated based on the Contract Value that is arrived at after taking care of time extensions, short closure etc. Accordingly contractor shall pay additional amount of SD or BHEL will adjust/refund excess SD if any.

### **9.3. Guidelines for acceptance of Bank Guarantees are as follows :**

- Vendors are advised to obtain BG from any of the following BHEL consortium banks

State Bank of India	The Hongkong and Shanghai banking Corporation Ltd.
ICICI Bank Ltd	ABN Amro Bank N.V
Bank of Baroda	IDBI Ltd
Canara Bank	Punjab National Bank
Citi bank N.A	Standard Chartered Bank
Corporation Bank	State Bank of Travancore
Detshe Bank	State Bank of Hyderabad
HDFC Bank Ltd	Syndicate Bank

- The Bank Guarantees of all Public sector banks shall be accepted (Other than consortium banks also).
- The Bank Guarantees of Co-operative banks shall not be accepted.
- Bank Guarantees of other banks (banks other than consortium bank, public sector bank, & Co-operative banks) can be accepted subject to an overall exposure limit (at BHEL, PSWR, Nagpur) of RS. 10 crores for banks with net worth of more than Rs. 500 crores as on last balance sheet date and Rs 5 crores for banks with net worth between Rs. 350 to Rs 500 crores (A certificate and copy of latest Balance Sheet to be given at the time of submission of bank guarantees .

In case Bank Guarantees given by non consortium banks (Private sector or Public sector), the bank Guarantees shall be enforceable at Nagpur, Maharashtra.

## **10.0 PRICE VARIATION**

**The price shall remains firm for entire contract period.**

**11.0 Validity of Offers: - Offer shall be valid for 180 days from the last date of submission of tender**

## **13.00 Responsibility of the Contractor in Respect of Safety of Men, Equipment, Material and Environment.**

### **The Contractor shall:**

#### **13.1.1**

Abide by the Safety Regulations applicable for the Site/Project and in particular as mentioned in the booklet "Safe Work Practices" issued by BHEL. Contractors are also to ensure that their employees and workmen use safety equipments as stipulated in the Factories Act (Latest Revision) during the execution of the work. Failure to use safety equipment as required by BHEL Engineer will be a sufficient reason for issuance of memo, which shall become part of Safety evaluation of the contractor at the end of the Project. Also all site work may be suspended if it is found that the workmen are employing unsafe working practice and all the costs/losses incurred due to suspension of work shall be borne by contractor. A

comprehensive list of National Standards from which the contractor can draw references for complying with various requirements under this section is given under 9.10

#### 13.1.2

Hold BHEL harmless and indemnified from and against all claims, cost and charges under Workmen's Compensation Act 1923 and 1933 and any amendment thereof and the contractor shall be solely responsible for the same.

#### 13.1.3

Abide by the Procedure governing entry/exit of the contractor's personnel within the Customer/Client premises. All the contractors employees shall be permitted to enter only on displaying of authorized Photo passes or any other documents as authorized by the Customer/Client.

#### 13.1.4

Be fully responsible for the identity, conduct and integrity of the personnel/workers engaged by them for carrying out the contract work and ensure that none of them are ever engaged in any anti national activity

#### 13.1.5

Prepare a signboard giving the following information and display it near work site:

- i) Name of Contractor
- ii) Name of Contractor Site-in-charge & Telephone number
- iii) Job Description in short
- iv) Date of start of job
- v) Date of expected completion
- vi) Name of BHEL Site-in-charge.

#### 13.1.6

Abide by the rules and regulations existing during the contract period as applicable for the contractors at the Project premises.

#### 9.1.7

Observe the timings of work as advised by BHEL Engineer-in-charge for carrying out the contract work.

### 13.2 **SPECIAL CONDITIONS**

#### **13.2.1 Safety**

##### **13.2.1.1 Safety Plan**

Before commencing the work, contractor shall submit a "safety plan" to the authorized BHEL official. The safety plan shall indicate in detail the measures that would be taken by the contractor to ensure safety to men, equipment, material and environment during execution of the work. The plan shall take care to satisfy all requirements specified hereunder.

The contractor shall submit "safety plan" before start of work. During negotiations, before placing of work order and during execution of the contract, BHEL shall have right to review and suggest modifications in the safety plan. Contractor shall abide by BHEL's decision in this respect.

#### 13.1.1

The contractor shall take all necessary safety precautions and arrange for appropriate appliances and/or as per direction of BHEL or it's authorized person to prevent loss of human lives, injuries to men engaged and damage to property and environment.

#### 13.1.2

The contractor shall provide to his work force and also ensure the use of Personnel Protection Equipment (PPE) as found necessary and/or as directed and advised by BHEL officials without which permission is liable to be denied.

- Safety helmets conforming to IS 2925/1984 (1990)
- Safety belts conforming to IS 3521/1989
- Safety shoes conforming to IS 1989 part-II /1986(1992)
- Eye and face protection devices conforming to IS 2573/1986(1991), IS 6994 (1973), part-I (1991), IS 8807/1978 (1991), IS 8519/1977(1991).

➤ Other job specific PPEs of standard ISI make as may be prescribed

#### 13.2.3

All tools, tackles, lifting appliances, material handling equipment, scaffolds, cradles, cages, safety nets, ladders, equipment, etc used by the contractor shall be of safe design and construction. These shall be tested and certificate of fitness obtained before putting them to use and from time to time as instructed by authorized BHEL official who shall have the right to ban the use of any item found to be unsafe.

#### 13.2.4

All electrical equipment, connections and wiring for construction power, its distribution and use shall conform to the requirements of Indian Electricity Act and Rules. Only electricians licensed by the appropriate statutory authority shall be employed by the contractor to carryout all types of electrical works. All electrical appliances including portable electric tools used by the contractor shall have safe plugging system to source of power and be appropriately earthed.

#### 13.2.5

The contractor shall not use any hand lamp energized by electric power with supply voltage of more than 24 volts. For work in confined spaces, lighting shall be arranged with power source of not more than 24 volts.

The contractor shall adopt all fire safety measures as per relevant Indian Standards

#### 13.2.6

Where it becomes necessary to provide and/or store petroleum products, explosives, chemicals and liquid or gaseous fuel or any other substance that may cause fire or explosion, the contractor shall be responsible for carrying out such provisions and/or storage in accordance with the rules and regulations laid down by the relevant government acts, such as petroleum act, explosives act, petroleum and carbides of calcium manual of the chief controller of explosives, Government of India etc. The contractor in all such matters shall also take prior approval of the authorized BHEL official at the site.

#### 13.2.7

Proper means of access must be used e.g. ladders, scaffolds, platforms etc. No makeshift access such as oil drums or pallets shall be used. Design of these will be in accordance with relevant standards and certified by competent persons before use.

#### 13.2.8

Temporary arrangements made at Site for lifting , platforms, approach access etc should be properly designed and approved before being put to use.

#### 13.2.9

All excavations and openings must be securely and adequately fenced/barricaded and warning signs erected when considered necessary as per relevant code of practice.

#### 13.2.10

No persons shall remove guardrails, covers or protective devices unless authorized by a responsible supervisor and alternative precautions have been taken

#### 13.2.11

Access ways, means of escape and fire exits shall be clearly marked, kept clear and unobstructed at all times

#### 13.2.12

Only authorized persons holding relevant license will drive and operate site plant and equipments e.g. cranes, dumpers, excavators, transport vehicles etc

#### 13.2.13

Only authorized personnel are allowed to repair, commission electrical equipments.

#### 13.2.14



Gas Cylinders shall be handled and stored as per Gas Cylinders Rules and relevant safe working practices

13.2.15

All wastes generated at Site shall be segregated and collected in a designated place so as to prevent spillage/contamination/scattering at Site, until the waste is lifted for disposal to designated disposal area as advised by BHEL official.

13.2.16

The contractor shall arrange at his cost (wherever not specified) appropriate illumination at all work spots for safe working when natural day light is not adequate for clear visibility.

13.2.17

The contractor shall train adequate number of workers/supervisors for administering "FIRST AID". List of competent first aid administrators should be prominently displayed.

13.2.18

The contractor shall display at strategic places and in adequate numbers the following in fluorescent markings

- Emergency telephone numbers
- Exit, Walkways
- Safe working load charts for wire ropes, slings, D shackles etc
- Warning signs

13.2.19

The contractor shall be held responsible for any violation of statutory regulations (local, state or central) and BHEL instructions that may endanger safety of men, equipment, material and environment in his scope of work or other contractors or agencies. Cost of damage, if any, to life and property arising out of such violation of statutory regulations and BHEL instructions shall be borne by the contractor.

13.2.20

In case of a fatal or disabling injury/accident to any person at construction sites due to lapses by the contractor, the victim and/or his/her dependents shall be compensated by the contractor as per statutory requirements. However, if considered necessary, BHEL shall have the right to impose appropriate financial penalty on the contractor and recover the same from payments due to the contractor for suitably compensating the victim and/or his/her dependents. Before imposing any such penalty, appropriate enquiry shall be held by BHEL giving opportunity to the contractor to present his case.

13.2.21

In case of any damage to property due to lapses by the contractor, BHEL shall have the right to recover cost of such damages from payments due to the contractor after holding an appropriate enquiry.

13.2.22

In case of any delay in the completion of a job due to mishaps attributable to lapses by the contractor, BHEL shall have the right to recover cost of such delay from payments due to the contractor after notifying the contractor suitably and giving him opportunity to present his case.

13.2.23

If the contractor fails to improve the standards of safety in its operation to the satisfaction of BHEL after being given a reasonable opportunity to do so, and/or if the contractor fails to take appropriate safety precautions or to provide necessary safety devices and equipment or to carry out instructions regarding safety issued by the authorized BHEL official, BHEL shall have the right to take corrective steps at the risk and cost of the contractor after giving a notice of not less than seven days indicating the steps that would be taken by BHEL.

13.2.24      **Emergency Response**

BHEL will have an Emergency Response Plan for each Project Site in consultation with the Owner as the case may be, detailing the procedure for mobilization of personnel and equipment, and defining the responsibilities of the personnel indicated, in order to prepare for any emergency that may arise in order to ensure the priorities of

- Safeguard of life
- Protect assets under construction or neighbouring
- Protect environment
- Resumption of normal operations as soon as the emergency condition is called off

All Contractors shall also be part of the Emergency response Plan and the personnel so nominated shall be aware of their duties and responsibilities in an emergency response situation.

#### 13.2.25

At least 5% Contractors supervisors and workmen shall undergo training in administering 'First Aid'. The trained persons should represent for all categories of work and for all areas of work. Adequate number of trained persons should be available for each shift. These first aides shall be included in the emergency response team. Contractor employees and workmen are encouraged to participate in first aid training programmes whenever organized by BHEL.

#### 13.2.26 OCCUPATIONAL HEALTH

Specific occupational health hazards will be identified through the hazard evaluation processes in consultation with BHEL engineers and the necessary prevention/reduction/elimination methods implemented.

#### 13.2.27

All personnel working in an activity with a potential risk to health shall be made aware of all those risks and the actions they must take to reduce/control/eliminate the risk

#### 13.2.28

Safety coordinator shall conduct periodic checks to ensure that every group of workers engaged in similar activities are aware of potential risks to health and the actions required to be taken to mitigate the risk

#### 13.2.29

In order to protect personnel from associated health hazards, the following main areas will be focused

- Issue of approved Personnel Protective Equipment
- Verification that the PPE are adequate/maintained and worn by all staff involved in operations that are potentially hazardous to their health
- Ensure that the personnel deployed are physically fit for the operation/work concerned
- Provide hygienic and sanitary working conditions

#### 13.2.30

Contractor workers employees engaged in noise risk areas shall be issued with hearing protection aids and the use of the same will be enforced. Further, these workers will be educated on the hazards of noise

#### 13.20.31

Contractor workers engaged in dust environment shall be issued with necessary dust protection aids and the use of the same shall be enforced

#### 13.2.32

Workers engaged in exposure to bright light/rays as in welding or radiation shall be issued with eye protection devices and the use of the same shall be enforced

#### 13.2.33

Adequate arrangements shall be made to provide safe drinking water

13.2.34

Health monitoring records on at least sample basis for contractor employees & workmen shall be maintained for persons engaged in specified categories of work. These shall include

- Noise induced hearing loss
- Lung Function test
- Ergonomic Test
- Eye Test for Welders, Grinders, Drivers etc

#### **13.3.1 HYGIENE and HOUSEKEEPING**

13.3.2

Good house keeping and proper hygiene is one of the key requirements of Occupational Health Safety and Environment management. Towards this the contractor shall encourage his workers and supervisors to maintain cleanliness in their area of work.

13.3.3

The Contractor shall arrange to place waste bins/chutes at convenient locations for the collection of scrap and other wastes. The bins shall be clearly marked and segregated for metal, non-metal, hazardous and non hazardous wastes.

13.3.4

BHEL may take up appropriate remedial measures at the cost of the contractors if the contractors fail in good house keeping and if there is an imminent risk of pollution

#### **13.4.1 ENVIRONMENT MANAGEMENT**

13.4.1

BHEL has a sound environmental management system, which is to be maintained and implemented by all the contractors. The system allows for project specific objectives to be set and developed sensitive to client requirements, applicable environmental legislation and BHEL's own objectives and policy. BHEL engineers will assess and monitor the environmental impact of their work and lay out objectives for their minimization. The contractors shall implement the objectives for continual improvement of environmental performance. BHEL shall regularly audit environmental impacts and their improvements.

#### **13.4.2 WASTE MANAGEMENT**

13.4.2.1

The objective of waste management is to ensure the safe and responsible disposal of waste, ensuring that it is correctly disposed of and being able to audit the process to ensure compliance.

13.4.2.2

Chemical wastes if any shall be collected separately and disposed of to BHEL designated refuse yard as per BHEL advice.

13.4.2.3

No dangerous chemicals, noxious waste products or materials will be disposed off on or off site without approval obtained through BHEL.

13.4.2.4

All disposal of wastes generated during construction shall be in accordance with all relevant legislation.

13.4.2.5

Acid and alkali cleaning wastes shall be neutralized to acceptable norms before disposal to the designated area.

13.4.2.6

All necessary measures shall be taken to ensure safe collection and disposal of waste oils. In particular to ensure the prevention of their discharge into surface waters, ground waters, coastal waters or drainages

### **13.5 SUPERVISION**

Contractor must provide at least one full time on site safety coordinator when the manpower engaged is in excess of 50 for the contract activities in the premises. If the manpower is less than 50, the on site safety coordination responsibilities shall be assumed by any one of the contractor's other supervisory staff; however in both the cases, the contractor must specify in writing the name of such persons to the BHEL Engineer in Charge.

#### **13.5.2**

Contractor's safety coordinator or his supervisor responsible for safety as the case may be shall conduct at his work site, and document formal safety inspection and audits at least once in a week. Such documents are to be submitted to BHEL Engineer in Charge for his review and record.

Contractor, supervisor must attend all schedule safety meetings as would be intimated to him by the BHEL Engineer in Charge.

#### **13.5.3**

Before starting work under any contract, the contractor must ensure that a job specific safety procedures/field practices as required over and above the safety permit conditions are prepared and followed. He should also ensure that all supervisors and workers involved understand and follow this procedures /field practices.

#### **13.5.4**

Contractor must ensure that in his work site appropriate display boards are put displaying signs for site safety, potential hazards and precautions required.

### **13.6 TRAINING & AWARENESS**

#### **13.6.1**

Contractor shall deploy experienced supervisors and other manpower who are well conversant with the safety and environment regulations of the Project. The electricians to be deployed on the job should have wireman license.

#### **13.6.2**

All Supervisors & Workmen of the Contractor shall undergo Fire safety training/ demonstration whenever arranged by BHEL with the help of either Customer's Fire and Safety department or outside faculty so as to acquire knowledge of fire prevention and also to be able to make use of appropriate fire extinguishers.

#### **13.6.3**

Contractor must familiarize himself from BHEL Engineer in Charge about all known potential fire, explosion or toxic release hazards related to the contract. He in turn will ensure that same information has been passed to the supervisors and workmen

#### **13.6.4**

Contractor must ensure that all his supervisors are properly trained and each employee has received and understood from his supervisor necessary training and briefing about the safety requirement. Necessary document as a means to verify that employees have understood the training is to be maintained.

#### **13.6.5**

The contractor supervisors shall also give a small safety briefing to all the workmen under his charge before undertaking any new work and specially understand the safety requirements that are mandatory

### **13.7 REPORTING**

#### **13.7.1**

The contractor shall submit report of all accidents, fires and property damage, dangerous occurrences to the authorized BHEL official immediately after such occurrence but in any case not later than twelve

hours of the occurrence. Such report shall be furnished in the manner prescribed by BHEL and also to meet statutory requirement.

#### 13.7.2

Any injury sustained by any of the contractor's employees within the Project premises must be reported to BHEL supervisor and FIRST AID should be immediately administered. The Contractor shall be responsible for keeping and maintaining proper records of Accidents to his personnel.

#### 13.7.3

Contractor must arrange to immediately investigate, properly document and report any injury, accident or near miss involving any of his employees and take appropriate follow up action. He must furnish within 12 hours of the incident a written report to BHEL Engineer in charge and the Safety Section.

#### 13.7.3

According to the Factory Act and the Employees state Insurance Act & regulation, any person sustaining any injury within the project premises and absenting himself from work for more than 46 hours, his accident report has to be sent to the respective Government Authorities. Therefore contractor shall inform the owner's representative such matter immediately for their needful action.

#### 13.7.4

In addition, contractor shall submit periodic reports on safety to the authorised BHEL official from time to time as prescribed.

#### 13.7.5

Before commencing the work, the contractor shall appoint/nominate a responsible officer to supervise implementation of all safety measures and liaison with his counterpart of BHEL.

### 13.8 AUDIT REVIEW AND INSPECTION

#### 13.8.1

BHEL shall conduct audit on the contractor performance and compliance with the project specific requirements of the Environment and Occupational Health & Safety Management systems. The programme of audit shall cover all activities under the contract but will focus particularly on high-risk activities. The Construction Manager shall decide the schedule of audit. The audit findings shall be communicated to the contractors and necessary remedial action as advised by BHEL Engineers shall be under taken within the stipulated time.

#### 13.8.2

Inspections shall be carried out regularly by the contractors and by BHEL Engineers on activities, facilities, equipment, documentation, to cover the following aspects.

- Compliance with procedures and systems
- Availability, condition and use of PPE
- Condition of maintenance tools, equipments, facilities
- Availability of fire fighting equipments and its condition
- Use of fire fighting equipments and first aid kit
- Awareness of occupational health hazard
- Awareness of safe working practices
- Presence of quality supervision
- Housekeeping

The Safety coordinator shall visit and inspect work sites daily. All unsafe acts, unsafe conditions that have imminent potential for causing harm/injury/damage will be immediately corrected. He shall maintain a daily logbook giving details of unsafe acts or conditions observed and the corrective action taken and recommendations for preventing recurrence. Adequacy of corrective actions will be verified

The contractor shall take remedial measures as per the findings of each inspection

Besides the above, the contractor shall be required to carry out the following inspections

Bharat Heavy Electricals Limited : PSWR : Nagpur  
Tender Specs. No. **BHE/PW/PUR/BRD-RWH/985/OJ**

Sl no	Equipment	Scope of inspection	Inspection by	Schedule
1	Hand tools	To identify unsafe/defective tool	User	Daily
2	Power tools	To identify unsafe/defective tool	User	Daily
3	Fire Extinguishers	To check pressure and any defect	User / Safety Coordinator	Daily Every month
4	Lifting equipment/tackles	To check for defects and efficacy of brakes	User Third party	Daily Every Year
5	PPE	To check for defects	User	Daily

### 13.9 **NON COMPLIANCE:-**

#### 13.9.1

NONCONFORMITY OF SAFETY RULES AND SAFETY APPLIANCES WILL BE VIEWED SERIOUSLY AND THE BHEL HAS RIGHT TO IMPOSE FINES ON THE CONTRACTOR AS UNDER **for every instance of violation noticed:**

Sl. No.	Instance of Violation	Fine (in Rs)
01.	Not Wearing Safety Helmet	50/-
02.	Not wearing Safety Belt	100/-
03.	Grinding Without Goggles	50/-
04.	Not using 24 V Supply For Internal Work	500/-
05.	Electrical Plugs Not used for hand Machine	100/-
06.	Not Slings property	200/-
07.	Using Damaged Sling	200/-
08.	Lifting Cylinders Without Cage	500/-
09.	Not Using Proper Welding Cable With Lot of Joints And Not Insulated Property.	200/-
10.	Not Removing Small Scrap From Platforms	200/-
11.	Gas Cutting Without Taking Proper Precaution or Not Using Sheet Below Gas Cutting	200/-
12.	Not Maintaining Electric Winches Which are Operated Dangerously	500/-
13.	Improper Earthing Of Electrical T&P	500/-
	Major Accident or Accidents causing partial loss of earning to the victim	50,000/- per victim
14	Fatal Accident or Accidents causing permanent loss of earning to the victim	1,00,000/- per victim

Any other non-conformity noticed not listed above will also be fined as deemed fit by BHEL. The decision of BHEL engineer is final on the above. The amount will be deducted from running bills of the contractor. The amount collected above will be utilised for giving award to the employees who could avoid accident by following safety rules. Also the amount will be spent for purchasing the safety appliances and supporting the safety activity at site.

#### 13.10

**CITATION:**-If safety record of the contractor in execution of the awarded job is to the satisfaction of safety department of BHEL, issue of an appropriate certificate to recognize the safety performance of the contractor may be considered by BHEL after completion of the job

### 13.10.1 Memorandum of Understanding

After Award Of Work, Contractors Are Required To Enter Into A Memorandum Of Understanding As Given Below:

#### **Memorandum of Understanding**

**BHEL, PSWR is committed to Health, Safety and Environment Policy (EHS Policy) as given in the booklet titled “ Safe Working Practices” issued to all contractors.**

M/s \_\_\_\_\_ do hereby also commit to the same EHS Policy while executing the Contract Number \_\_\_\_\_

**M/s \_\_\_\_\_ shall ensure that safe work practices not limited to the above booklet are followed by all construction workers and supervisors. Spirit and content therein shall be reached to all workers and supervisors for compliance.**

BHEL will be carrying out EHS audits twice a year and M/s \_\_\_\_\_ shall ensure to close any non-conformity observed/reported within fifteen days.

Signed by authorized representative of M/s-----

Name :

Place & Date:

### 13.10.2

Comprehensive list of National Standards for reference and use wherever applicable in the execution of Civil, Erection and Commissioning Contracts.

IS No	YEAR	Amd upto	DESCRIPTION
IS 10204	1982		PORTABLE FIRE EXTINGUISHERS MECHANICAL FOAM TYPE
IS 10245	1994		SPECIFICATION FOR BREATHING APPARATUS
IS 10291	1982		SAFETY CODE FOR DRESS DRIVERS IN CIVIL ENGINEERING WORKS
IS 10658	1983		HIGHER CAPACITY DRY POWDER FIRE EXTINGUISHERS (TROLLEY MOUNTED)
IS 10662	1992		COLOUR TELEVISION
IS 10667	1983		GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR PROTECTION OF FOOT AND LEG
IS 11037	1984		ELECTRONIC FAN REGULATORS
IS 11057	1984		INDUSTRIAL SAFETY NETS
IS 11451	1998		RECOMMENDATION FOR SAFETY AND HEALTH REQUIREMENT RELATING TO OCCUPATION EXPOSURE TO ASBESTOS
IS 1169	1967		PEDESTAL FANS
IS 1179	1967		SPECIFICATION FOR EQUIPMENT FOR EYE AND FACE PROTECTION DURING WELDING
IS 11833	1986		DRY POWDER FIRE EXTINGUISHERS FOR METAL FIRES
IS 11972	1987		CODE OF PRACTICE FOR SAFETY PRECAUTION TO BE TAKEN WHEN ENTERING A SEWAGE SYSTEM

IS No	YEAR	Amd upto	DESCRIPTION
IS 1287	1986		ELECTRIC TOASTER
IS 13063	1991		STRUCTURAL SAFETY OF BUILDINGS ON SHALLOW FOUNDATIONS ON ROCKS
IS 13385	1992		SPECIFICATIONS FOR FIRE EXTINGUISHERS 50 LITRE WHEEL MOUNTED WATER TYPE (GAS CARTRIDGES)
IS 13386	1992		SPECIFICATIONS FOR FIRE EXTINGUISHERS 50 LITRE MECHANICAL FOAM TYPE
IS 13415	1992		CODE OF SAFETY FOR PROTECTIVE BARRIERS IN AND AROUND BUILDINGS
IS 13416	1992		RECOMMENDATIONS FOR PREVENTIVE MEASURES AGAINST HAZARDS AT WORKING PLACE PART 1 TO PART 5
IS 13430	1992		CODE OF PRACTICE FOR SAFETY DURING ADDITIONAL CONSTRUCTION AND ALTERATION TO EXISTING BUILDINGS
IS 13849	1993		PORTABLE FIRE EXTINGUISHERS DRY POWDER TYPE ( CONSTANT PRESSURE)
IS 1446	1985		CLASSIFICATION OF DANGEROUS GOODS (FIRST REVISION)
IS 1476	1979		REFRIGERATORS
IS 1641	1988		CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS (GENERAL); GENERAL PRINCIPLES OF FIRE GRADING AND CLASSIFICATION
IS 1642	1989		CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS- DETAILS OF CONSTRUCTION
IS 1643	1988		CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS (GENERAL); EXPOSURE HAZARD
IS 1646	1997		CODE OF PRACTICE FOR FIRE SAFETY OF BUILDINGS (GENERAL); ELECTRICAL INSTALLATIONS
IS 1904	1986		CODE OF PRACTICE FOR DESIGN AND CONSTRUCTION OF FOUNDATIONS IN SOIL
IS 1905	1987		STRUCTURAL SAFETY OF BUILDINGS MASONARY WALLS
IS 2082	1985		ELECTRICAL GEYSERS
IS 2171	1985		PORTABLE FIRE EXTINGUISHERS DRY POWDER TYPE (CARTRIDGE)
IS 2309	1989		PRACTICE FOR THE PROTECTION OF BUILDINGS AND ALLIED BUILDINGS AGAINST LIGHTENING
IS 2312	1967		EXHAUST FANS
IS 2361	1994		SPECIFICATION FOR BUILDING GRIPS - FIRST REVISION
IS 2418	1977		TUBULAR FLUORSCENT LAMPS IS 2418 (FT-1)
IS 2750	1964		STEEL SCAFFOLDINGS
IS 2762	1964		SAFE WORKING LOADS IN KGS FOR WIRE ROPE SLINGS
IS 2878	1986		FIRE EXTINGUISHERS CARBON DIOXIDE TYPE (PORTABLE AND TROLLEY MOUNTED)
IS 2925	1984		SPECIFICATION FOR INDUSTRIAL SAFETY HELMETS
IS 3016	1982		CODE OF PRACTICE FOR FIRE PRECAUTIONS IN WELDING AND CUTTING OPERATIONS- FIRST REVISION
IS 3315	1974		DESERT COOLERS
IS 3521	1989		INDUSTRIAL SAFETY BELTS AND HARNESS
IS 368	1983		IMMERSION WATER HEATERS
IS 3696	1991		SAFETY CODE OF SCAFFOLDS AND LADDERS PART 1 TO 2
IS 3737	1996		LEATHER SAFETY BOOTS FOR WORKERS IN HEAVY METAL

Bharat Heavy Electricals Limited : PSWR : Nagpur  
Tender Specs. No. **BHE/PW/PUR/BRD-RWH/985/OJ**



IS No	YEAR	Amd upto	DESCRIPTION
			INDUSTRIES
IS 374	1979		CEILING FANS INCLUDING REGULATORS
IS 3764	1992		EXCAVATION WORK - CODE OF SAFETY
IS 3786	1983		METHOD FOR COMPUTATION OF FREQUENCY AND SEVERITY RATES FOR INDUSTRIAL INJURIES AND CLASSIFICATION OF INDUSTRIAL ACCIDENTS
IS 3935	1966		CODE OF PRACTICE FOR COMPOSITE CONSTRUCTION
IS 4014	1967		CODE OF PRACTICE FOR STEEL TUBULAR SCAFFOLDING
IS 4081	1986		SAFETY CODE FOR BLASTING AND RELATED DRILLING OPERATIONS
IS 4082	1977	1996	STACKING AND STORAGE OF CONSTRUCTION MATERIALS AND COMPONENTS AT SITE
IS 4130	1991		DEMOLITION OF BUILDINGS - CODE OF SAFETY PART 1 TO 2
IS 4138	1977		SAFETY CODE FOR WORKING IN COMPRESSED AIR (FIRST REVISION)
IS 4155	1966		GLOSSARY OF TERMS RELATING TO CHEMICAL AND RADIATION HAZARDS AND HAZARDOUS CHEMICALS
IS 4209	1967		CODE OF SAFETY FOR CHEMICAL LABORATORY
IS 4120	1980		FOOD MIXERS
IS 4262	1967		CODE OF SAFETY FOR SULFURIC ACID
IS 4756	1978		SAFETY CODE FOR TUNNELING WORK
IS 4912	1978		SAFETY REQUIREMENTS FOR FLOOR AND WALL OPENINGS, RAILINGS AND TOE BOARDS
IS 5121	1969		SAFETY CODE FOR PILING AND OTHER DEEP FOUNDATIONS
IS 5182	1969	1982	METHODS FOR MEASUREMENT OF AIR POLLUTION
IS 5184	1969		CODE OF SAFETY FOR HYDROFLUORIC ACID
IS 5216	1982	2000	RECOMMENDATIONS ON SAFETY PROCEDURES AND PRACTICE IN ELECTRICAL WORK PART I AND II
IS 555	1979		TABLE FANS
IS 5557	1995		INDUSTRIAL AND SAFETY LINED RUBBER BOOTS ( SECOND REVISION)
IS 5916	1970		SAFETY CODE FOR CONSTRUCTION INVOLVING USE OF HOR BITUMINOUS MATERIALS
IS 5983	1980		SPECIFICATION FOR EYE PROTECTORS - FIRST REVISION
IS 6234	1986		PORTABLE FIRE EXTINGUISHERS WATER TYPE ( STORED PRESSURE)
IS 692	1994		CRITERIA FOR SAFETY AND DESIGN OF STRUCTURES SUBJECTED TO UNDERGROUND BLASTS
IS 6994	1973		SPECIFICATION FOR SAFETY GLOVES
IS 7155	1986		CODE OF RECOMMENDED PRACTICE FOR CONVEYOR SAFETY (PART 1 TO 8)
IS 7205	1974		SAFETY CODE FOR ERECTION OF STRUCTURAL STEEL WORK
IS 7293	1974		SAFETY CODE FOR WORKING WITH CONSTRUCTION MACHINERY
IS 7323	1994		GUIDELINES FOR OPERATIONS OF RESERVOIRS
IS 7812	1975		CODE OF SAFETY FOR MERCURY

IS No	YEAR	Amd upto	DESCRIPTION
IS 7969	1975		SAFETY CODE FOR HANDLING AND STORAGE OF BUILDING MATERIALS
IS 8089	1976		CODE OF SAFE PRACTICE FOR LAYOUT OF OUTSIDE FACILITIES IN AN INDUSTRIAL PLANT
IS 8091	1976		CODE OF PRACTICE FOR INDUSTRIAL PLANT LAYOUT
IS 8095	1976		ACCIDENTS PREVENTION TAGS
IS 818	1968	1997	CODE OF PRACTICE FOR SAFETY AND HEALTH REQUIREMENTS IN ELECTRIC AND GAS WELDING, AND CUTTING OPERATIONS
IS 8448	1989		AUTOMATIC LINE VOLTAGE CORRECTOR (STABILISER)
IS 8519	1977		GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR BODY PROTECTION
IS 8520	1977		GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR EYE, FACE AND EAR PROTECTION
IS 875	1987		STRUCTURAL SAFETY OF BUILDING: LOADING STANDARD PART 1 TO 5
IS 8807	1978		GUIDE FOR SELECTION OF INDUSTRIAL SAFETY EQUIPMENT FOR PROTECTION OF ARMS AND HANDS
IS 8978	1985		INSTANTANEOUS WATER HEATERS
IS 8989	1978		SAFETY CODE FOR ERECTION OF CONCRETE FRAMED STRUCTURES
IS 940	1989		PORTABLE FIRE EXTINGUISHERS WATER TYPE ( GAS CARTRIDGE)
IS 9457	1980		SAFETY COLOURS AND SIGNS
IS 9679	1980		CODE OF SAFETY FOR WORK ENVIRONMENTAL MONITORING
IS 9706	1997		CODE OF PRACTICE FOR THE CONSTRUCTION OF AERIAL RPEWAYS FOR THE TRANSPORTATION OF MATERIAL
IS 9759	1981		GUIDELINES FOR DEWATERING DURING CONSTRUCTION
IS 9815	1989		SERVO MOTOR OPERATED LINE VOLTAGE CORRECTOR (SERVO STABILISER)
IS 9944	1992		RECOMMENDATIONS ON SAFE WORKING LOAD FOR NATURAL AND MAN-MADE FIBRE ROPE SLINGS
IS 996	1979		SINGLE PHASE ELECTRIC MOTORS
ISO 3873	1977		SAFETY HELMET

#### **14.0 LIQUIDATED DAMAGES**

The bidder is to clearly understand that timely deployment of the services complete with equipment and crew is very vital to this contract. Therefore deployment of crane with all necessary attachments, components and O&M crew specified in the work order shall be made within the time limit prescribed in the contract. In case of delay in deployment beyond the period specified in the order, BHEL will have no obligation to accept the crane and reserves the right to levy liquidated damages @ 0.5% (half percent) of the Order Value for each week of delay or part thereof, subject to a maximum of 5% of the Order Value.

In exceptional cases where the reasons for delay in deployment of crane at the project site are beyond the control of the contractor (e.g., Natural Calamities, Riot, Strike and Force Majeure conditions) extension of delivery date may be granted by BHEL on merit. Documentary evidences supporting the reasons of such delay are to be produced by the contractor.

#### **15.0 GENERAL**

- In case any contradiction between “General Condition of Contract “& Special Condition of Contract” of this tender specification, the provision of “Special Condition of Contract” shall prevail.
- In case of contradiction between Quoted Unit Rate and total amount, the quoted unit rate shall be taken as correct and total amount recalculated for the for intended order quantity.
- In case of contradiction between Rate in Figure and Rates Words, the lesser of the two shall be considered as correct.
- In case BHEL finds that any bidder has furnished incorrect information, the offer is liable for rejection.