



**BHARAT HEAVY ELECTRICALS LIMITED**  
**ELECTRO PORCELAINS DIVISION**  
BANGALORE : 560 012

## **TENDER DOCUMENT**

**(PART-A)**

Consultancy for Electrical works for “Establishment of Solar PV Module Manufacturing facility”

**DEPARTMENT : WORKS ENGINEERING**  
**SECTION : ELECTRICAL**



BHARAT HEAVY ELECTRICALS LIMITED,  
Electroporcelains Division, IISc Post  
Bangalore - 560 012

**PART-A**  
**TENDER**  
**DOCUMENT**

**CONTENTS**

SL. No.	Description	Page Nos (PART-A Doc)
1.0	Notice Inviting Tender	2
1a	Bid Application	3
1b	Bid questionnaire - A	4
1c	Bid questionnaire - B	5
1d	Declaration by Bidder	6
2.0	Instructions to Bidder	7 - 8
3.0	General Terms and Conditions	8 - 9
4.0	Evaluation of Price Bid	10
5.0	Scope of work	10 – 11
6.0	Price Bid Format (Schedule – A) (Part – B)	Enclosed 2 pages separately



BHARAT HEAVY ELECTRICALS LIMITED,  
Electroporcelains Division, IISc Post  
Bangalore - 560 012

**PART-A**  
**TENDER**  
**DOCUMENT**

1.1

**NOTICE INVITING TENDER**

Sealed bids are invited in single stage two part bid for the following works as detailed below:

Sl. No.	Work Description	Tender Enquiry No. / Date	EMD (in Rs.)
1	Consultancy for Electrical works for "Establishment of Solar PV Module Manufacturing facility"	EP/ WEX/29/ELE/2015-16 dt: 30-03-2016	NIL

Contract completion time : 6 months approximately (up to completion of Electrical work).

Last date and time for submission of tender documents : Up to 2-30 PM of 07.04.2016

Date of opening of Tender (part – A) : 3-00 PM of 07.04.2016

**Note :**

1. A set of tender documents can also be downloaded from BHEL websites [www.bhel.com](http://www.bhel.com) and [www.bhelceramics.com](http://www.bhelceramics.com).
2. Contract will be governed by all statutory requirements amended from time to time & General terms & conditions of the contract of BHEL.
3. BHEL reserves the right to reject any or all the tenders without assigning any reasons whatsoever. Decision of BHEL in this regard shall be final & binding to all parties.

Date – 30.03.2016

Name: S. Muralidhara  
Designation: Manager/ WEX  
BHEL-EPD, Bangalore



**PART – A**

**1a. BID APPLICATION**

To

Manager – WEX  
Bharat Heavy Electricals Limited  
Electroporcelains Division,  
IISc Post, Bangalore – 560 012

Dear Sir,

I / We hereby offer to carry out the work.....  
Against Tender Enquiry No..... dated.....

I / We have carefully perused the following documents connected with the above mentioned work and agree to abide with the same.

- |     |                                      |   |            |
|-----|--------------------------------------|---|------------|
| 1.  | Notice Inviting Tender               | } | (Part – A) |
| 2.  | Bid Application                      |   |            |
| 3.  | Bid Questionnaire – A                |   |            |
| 4.  | Bid Questionnaire – B                |   |            |
| 5.  | Declaration by Bidder                |   |            |
| 6.  | Instructions to bidder               |   |            |
| 7.  | General terms and conditions         |   |            |
| 8.  | Evaluation of price bid              |   |            |
| 9.  | Scope of Work                        |   |            |
| 10. | Price Bid Format as per Schedule - A |   | (Part – B) |

I / We further agree to execute all the works referred to in the said documents as per the General terms and conditions.

I / We are in possession of independent PF Code.

I declare that, there was never / is no litigation or charge under investigation / enquiry / trial against me / us, nor conviction in a court of law or suspended or blacklisted by any organization on any grounds.

Signature of Bidder  
Date:



1b. **BID QUESTIONNAIRE - A**

Tender Enquiry No: -  
Date:

**Details of the Bidder**

a) Name and address of the Firm:

b) Name and address of the proprietor:

c) Is any contract being operated under the control of the bidder in BHEL. Yes / No  
(If yes furnish the details) :

	<u>Location/ Address</u>	<u>Value</u>	<u>Date of Completion</u>
1.			
2.			
3.			
4.			

d) Is any relative of bidder employed in BHEL Yes / No

(If yes furnish the detail)  
Name

Staff no

Location / Area

Signature of the Bidder  
Date:



1c. BID QUESTIONNAIRE - B:

01	PAN No.	
02	Service Tax Registration No.	
03	Banker's Name & Address	
04	Bank A/C No.	
05	Have you quoted your rates in figures (Digits) and not in percentage in the Price Bid (Part B)? (Strike out whichever is not applicable)	<b>YES / NO</b>
06	Have you quoted rates for all the activities, as indicated in the price bid (Part – B)? (Strike out whichever is not applicable)	<b>YES / NO</b>
07	Details of Tax Structures as quoted in Price Bid (Part B)	
08	Any other comments	

Note:

- I. Photocopy in support of above wherever applicable should be attached.
- II. Please note that if answer of SI No. 05 & 06 is 'NO' then the bid is liable to be rejected.

*I declare that I have read the tender document completely and have understood the scope of work and terms & conditions governing the contract. I agree to abide by the same and other terms & conditions and guidelines issued by BHEL during the course of execution of the work as per the contract.*

Signature of the Bidder  
Date:



**1d. DECLARATION BY THE BIDDER -B**

I, -----, aged-----Yrs., S/o -----,  
residing at-----  
-----

Hereby declare as follows:

- (i) That my nationality is \_\_\_\_\_.
- (ii) That I am a major and eligible to enter into contract / my firm / my company is competent to enter into an agreement.
- (iii) I shall employ only such personnel who have not been found unfit for employment in Organizations such as Central / state / Public undertaking by the Police Authorities.
- (iv) I shall not employ persons against whom Criminal cases are pending or under investigation.
- (v) I shall also not employ persons found guilty of offences involving moral turpitude for executing work in BHEL contracts.
- (vi) That there are no Criminal cases pending or under investigation against me or my firm or company.
- (vii) I have not been found guilty of offences involving moral turpitude nor any of the company directors / partners of my firm have been found guilty of offences involving moral turpitude.
- (viii) Neither I nor my firm nor my company has been declared insolvent in the past.
- (ix) I have taken due care and efforts to furnish only information which are true in the tender document.
- (x) I shall employ labors who are more than 18 years of age and having sound physical and mental health.
- (xi) I shall keep Photograph / identity proof / residential proof of the labourers to be employed against this tender and arrange for police verification.

[Signature with Name & seal of the Bidder]

Date :  
Place :



## 2.0 INSTRUCTIOINS TO BIDDER

2.1 Tender is a two part bid system. The tender documents consist of Part – A and Part - B as detailed below:

Part 'A': Techno-commercial Bid (To be submitted in sealed cover enabling us to open on 07<sup>th</sup> April 2016 at 3-00 pm)

Part 'B': Price Bid to be quoted as per Tender conditions in the schedule given by BHEL.

2.2 Part 'A' must be duly completed and sealed along with the undertaking in a separate envelope super scribed "**Tender Enquiry No. EP/ WEX/ 29/ELE/ 2015-16, Dated: 30.03.2016, Part 'A' - Techno-commercial Bid**"

**2.3 The bidder must not indicate the price or rate in the PART-A (Techno-commercial bid).**

2.4 Part 'B' must be duly completed with reference to the tender conditions and put in a separate sealed envelope super scribed "**Tender Enquiry No. EP/ WEX/ 29/ELE/ 2015-16, Dated: 30.03.2016, Part 'B' – Price Bid**".

2.5 Tender documents consisting of Part 'A' & 'B' duly sealed in a separate envelopes should be sealed in another envelope and should be deposited in the WEX - Tender Box kept at Reception so as to reach **on or before 15-00 Hrs Dt. 07.04.2016**. Part 'A' of tender form i.e. Techno-commercial Bid will be opened **on Dt. 07.04.2016 at 15.00 hours** the same day in the presence of bidders or their representatives who are present for the tender opening. Bidders who qualify in the Techno-commercial Bid will be intimated to attend the tender opening of part 'B' - price bid at a date to be notified separately. Part 'B' i.e. price Bid will be opened at the specified date in the presence of the bidders or their representative who are notified to attend the tender opening. The tender documents may also be sent either by registered post / Speed Post / Courier/ e-mail so as to reach on or before the said date and time.

2.6 The Techno commercial Bid (Part - A) and general terms and conditions shall form part of Techno-commercial offer. **Each page should be duly signed by the bidder as a token of acceptance.**

2.7 Part 'B' – the price Bid (Schedule-A) should not carry any conditions. Price / rate should be quoted in clear terms in the format given by BHEL. Part 'B' Price bid will be opened only in respect of those bidders who are qualified in Techno- Commercial Bid.

2.8 The bidder shall accept all the terms and conditions of the tender.

2.9 The tender forms both Part 'A' & 'B' duly filled in all respects shall be signed on each page by the bidder. Any alteration, erasure or over-writing will render the tender invalid. Alteration neatly carried out and duly attested over with the full signature of the bidder however is permitted.

2.10 Name of the bidder should be written or the contractors seal to be put on the sealed envelope.

2.11 Before making the offer the bidders are advised to carefully go through the terms and conditions, which form part of the agreement.

2.12 All entries in the tender document should be in one Ink. Corrections, over writing, cuttings etc. are not permitted. All the columns in the tender form should be filled without leaving any column blank in any page of the tender. In case any of the columns are left blank, the tender can be rejected.

2.13 For any further details required, tender issuing officer of BHEL/EPD, Bangalore may be contacted in person or through TELEPHONE NOS. **080-22182221 or 2218 2344**.

2.14 BHEL reserves the right to assess the capacity and capability of the parties for pre-qualification. The company also reserves the right to accept or reject any or all the tenders or any part thereof at any stage of process without assigning any reason whatsoever. The company has no obligation to accept the lowest tender. Offer of the Bidder if prima-facie found not comparable with the quantum of work envisaged and the bid is an effort to be L1, then the offer is liable to be rejected. BHEL's decision in this regard shall be final and binding.





- 2.15 **PRICE BID** - The bidders are required to submit their quotation for **all the items listed in Part "B" in the price bid format SCHEDULE-A** given along with the tender documents. The price should be quoted for each activity after careful study of the actual job requirement so that, in case the contract awarded, contractor should not express any difficulties in execution of the contract.
- 2.16 The bidders should note that the Income Tax as applicable will be deducted from the bills of contractor.
- 2.17 **VALIDITY OF RATES** - The rates quoted should be valid for 90 days initially from the date of price bid opening.
- 2.18 BHEL reserves the right to reject any bid, which is technically unacceptable and unworkable. Further BHEL also reserves the right to reject any or all bids without assigning any reasons thereof.
- 2.19 BHEL reserves the right to cancel the contract at the initial stage or during the contract period without assigning any reason to the bidder.
- 2.20 Successful bidders shall enter into an agreement on stamp paper of Rs.100/= as a token of having accepted the rates, terms and conditions of the contract as per the Performa given by BHEL.
- 2.21 Any written communication required to be sent to the contractor in writing shall be sent at the address mentioned on the tender form or to any other address subsequently intimated by contractor in writing to BHEL EPD for the contract purposes.

**3.1 GENERAL TERMS AND CONDITIONS**

**3.2 General.**

- 3.2.1 The bidder shall also mention the PAN Number issued by Income Tax Department, copy the PAN card or PAN number allotment letter shall be submitted along with the bid documents.
- 3.2.2 There should be no litigation or charge under investigation / enquiry / trial against the Bidder, or conviction in a court of law or suspended or blacklisted by any organization on any ground.
- 3.2.3 The opinion / decision of BHEL regarding the bid shall be final and conclusive. BHEL reserves the right to reject any or all the bids at any time without assigning any reason.
- 3.2.4 In case the bidder has a relative employed in BHEL, the authority inviting tender shall be informed of this fact in writing at the time of submission of tender, failing which the tender may be disqualified, or if such fact comes to light subsequently, the contract may be terminated.
- 3.2.5 If the bidder gives wrong information in his tender or creates conditions favorable for the acceptance of his tender, BHEL reserves the right to reject such tender at any stage.
- 3.2.6 BHEL reserves the right to award the contract to one or more contractor simultaneously as deemed fit at the initial stage or during the contract period.

**3.3 STATUTORY REQUIREMENTS:**

The bidder will be required to comply with all the statutory provisions such as PF, Service Tax, etc. The Income Tax as applicable will be deducted from the bill of contractor.

The contractor shall submit the documentary evidence of payment on account of submission of statutory payments made to the concerned agencies before clearance of bill..

- 3.3.1 The bidder shall comply with the provisions of Employees Provident Fund and Miscellaneous Act 1952, Industrial Disputes Act, 1947, Employers Liability Act 1938, Inter State Migrants Workmen (Regulation of employment and conditions of Service) Act 1979 and or any other Laws and Rules that may be applicable from time to time to the workers engaged by him. The bidder, when required by the Company shall produce the registers and records for verification and comply with other directions issued by the company for compliance of the statutory provisions.
- 3.3.2 The Bidder shall fully indemnify the loss if any caused to BHEL due to any default or non-observance of any of the laws, or any omission or commission or inability on the part of the Bidder or his representative.
- 3.3.3 The Bidder shall, keep and produce for inspection at all times, forms, registers and other records required to be maintained under various statutes in order go through them by the Company whenever required.



- 3.3.4 The Bidder shall produce to the Company, the documentary proof of payment of the said statutory dues. Non-observance of the provisions will be construed as default by the Bidder in making such payment, and payment of his bill will be deferred.

**3.4 FAILURE TO COMPLY WITH CONTRACT**

- 3.4.1 Notwithstanding anything contained in any other clause, BHEL reserves the right to terminate the contract due to any failure on the part of the Bidder in discharging his obligations under the contract or in the event of his becoming insolvent or going into liquidation. The decision of the BHEL about the failure on the part of the Bidder shall be final and binding on the bidder.
- 3.4.2 In the event of any failure on the part of the bidder, BHEL shall have the right without prejudice to any other right or remedies, to get the work done through any other agency and the Bidder shall be liable to compensate BHEL for any losses on this account. The additional cost, loss, if any incurred by BHEL will be recovered from the bills, security deposits, other dues as well as directly from the bidder.
- 3.4.3 The cancellation of contract may be either whole or part of the contract at BHEL's option. However the contractor shall continue to operate that part of contract which has not been terminated.
- 3.4.4 The decision of BHEL regarding interpretation of any terms and conditions set forth in the agreement shall be final and binding on the contractor.

- 3.5 Earnest Money Deposit(EMD) and Security deposit is not applicable.

**3.6 PAYMENT TO THE CONTRACTOR**

The payment to the contractor will be done after Successful completion of the work:

Payment will be made by E – Payment only and for which the bidders are to provide the following information along with their offers in their letter head duly signed:

1. Bank Name, 2. Bank Address, 3. Bank Phone, 4. IFSC Code (NEFT), 5. Bank Account Number, 6. PAN, 7. Service Tax Number, 8. TIN, 9. E-mail ID, 10. Cancelled Cheque

**3.7 SUB-CONTRACTING**

The contractor shall not sub-contract or transfer or assign the contract in full or in part or any part thereof to any other person or firm or company.

The contract will be governed by the Laws of India for the time being in force and as amended or made from time to time.

All disputes shall be settled in accordance with the Laws of India for the time being in force and as amended from time to time.

**3.8 LEGAL JURISDICTION:**

In respect of all matters arising out of or pertaining to the contract, the cause of action thereof shall be deemed to have arisen only at Bangalore, where BHEL - EPD is situated. All legal proceedings pertaining to the above matters or dispute shall be instituted only in courts having territorial jurisdiction over the place where BHEL-EPD is situated and no other court shall have the jurisdiction.

**3.9 DUTIES AND RESPONSIBILITIES OF THE CONTRACTOR:**

- 3.9.1 The duties and responsibilities and obligation of the contractor including statutory responsibilities mentioned in this document is indicative and not exhaustive. Contractors are required to confirm with the concerned authorities for proper and complete compliance.
- 3.9.2 Contractor to ensure that the employees deployed in the premises of BHEL are physically and mentally fit and do not have any criminal records.

**3.10 ARBITRATION:**

- 3.10.1 If at any time, any question, dispute or difference on matter connected with this work order should arise, the same shall be referred for arbitration to a person nominated in this behalf by Head of Unit, BHEL Electroporcelains Division, Bangalore, the award shall be final and binding on both parties.

- 3.10.2 In any matter pertaining to law, the agreement shall be subject to limits of local jurisdiction.



**4.1 EVALUATION OF PRICE BID:**

- (i) Rate must be quoted for the activity mentioned in the price bid Proforma as the job would be awarded to successful bidder on Turnkey basis.
- (ii) Bidder are advised to quote their rates as exact value and not in percentage. Quoting rates in percentage will lead to disqualification.
- (iii) Evaluation of the L-1 bidder shall be computed on overall basis for each work separately (Grand Total Price indicated in the schedule).
- (iv) In the event of two or more bidders becoming L1, the selection of the bidder for the purpose of awarding contract will be on the basis of LOTTERY to be held in presence of representatives of L1 bidders.
- (v) The rates quoted by the bidder should be workable and comply with all statutory requirements.
- (vi) If there will be any deviation between quoted rate and calculated amount based on quoted rate, the rate quoted in the prescribed format will be considered as final.

**IMPORTANT NOTE:**

- (vii) No prices to be filled up in Part A (Technical bid format). All prices are to be filled up only in price bid (Part B) only.
- (viii) The commercial terms and all tax structure shall be given with Technical bid. Non – acceptance of our commercial terms may lead to rejection of your offer.
- (ix) During technical scrutiny, our Works Engineering department may ask further clarification. The technical reply may be sent directly to the concerned person. But additional or revised price bid, if any due to technical changes or price negotiation must be sent in separate sealed cover to Works Engineering department only.

**5.1 SCOPE OF WORK:**

**A) H T Distribution System**

1. Preparation of layout drawing for installation of VCB's & Transformers,
2. Preparation of schematic and layout drawing for HT cable distribution system with layout including cable routing.
3. Providing specification of HT cables and cable jointing kits required for HT distribution system
4. Estimation for procurement of HT cables, cable jointing kits and other accessories indicating the quantity required for HT distribution system

**B) L T Distribution System for Main Equipment & Utilities**

1. Preparation of schematic and layout drawing for LT distribution system including cable routing for Solar PV Module manufacturing viz., Automated Module manufacturing line, air compressors, air-conditioning system, raw material stores including automated storage and retrieval system, finished goods storage yard, testing laboratory, shop lighting, associated offices etc.
2. Preparation of schematic and dimensional drawing for LT Power distribution panels with UPS supply as per system requirement in consultation with BHEL and respective equipment manufacturers.
3. Sizing and Design along with drawing for Power distribution panel & General Arrangement.
4. Providing specification of LT cables and other associated materials required for LT distribution system
5. Estimation for procurement of LT cables and other associated materials required for LT distribution system
6. Specification and Estimation for control panel and wiring for both power, control and instrumentation

**C) Earthing System**

1. Providing Specification of Earth pit and layout drawing for installation
2. Preparation of schematic and layout drawing for earthing system
3. Estimation for Earth pits and Connecting Earth to individual machines/Equipments

**D) Lighting System**

1. Providing lighting design for SPV shop and LED light fitting matrix in false ceiling, considering operational needs
2. Providing schematic and layout wiring diagram for lighting circuit



3. Schematic and General Arrangement Drawing for control distribution panel for false ceiling LED lights
4. Specification of materials required for wiring
5. Estimation for wiring materials and Distribution and control Panels

**E) Labour contract for wiring works**

1. Estimation for labour works required for execution of above works

**F) Supervision**

1. Supervision of works being executed for the scope detailed above

**G) Safety and Protection System**

1. Suggest the requisite safety and protection system to be incorporated in both HT and LT distribution system, suitably incorporated in the schematic, general arrangement and distribution design

**H) Relevant Standards**

1. The consultant shall incorporate relevant BIS standards, codes, guidelines and general industry practices while providing information as above

Note: (i) Bidders are advised to meet the Engineer In charge, visit the work spot and understand the scope of work clearly before quoting.  
(ii) Taxes and duties may be quoted separately in the space provided in the Price Bid Format, otherwise the rate quoted will be considered inclusive of all taxes and no clarification in this regards will be entertained further.

**6.0 PRICE BID FORMAT**

**Refer Schedule – A – (Part – B) Price Bid Format.**