

PROCEDURE FOR SUBMISSION OF SEALED TENDERS

Bids shall be submitted latest by 14:00 hrs. on due date in a sealed cover separately with bidder's seal super scribed with "Tender Enquiry No. & due date of opening" in two separate envelopes(i.e. Techno-commercial bid & Price bid) which will be put in a common third envelope super scribed with "Tender Enquiry No. & due date of opening", for each bid submitted independently, as follow:

PART – 1: Techno – Commercial Bid

PART – 2: Price Bid

The offer should be submitted in a sealed cover as mentioned in above and it should reach in tender box named EPD kept in reception by 14:00 hrs. on due date addressed to:

EPD TENDER BOX
Bharat Heavy Electricals Ltd
Electro Porcelains Division
PB No: 1245, Science Institute Post
Bangalore – 560012

TENDER ENQUIRY NO : 8581JB DT 21.06.2019

TENDER DUE DATE : 27.06.2019

OR

OFFERS CAN BE SUBMITTED THRU EMAIL ON BELOW MAIL IDs –

PART – 1: Techno – Commercial Bid – EMAIL AT technicalbid-epd@bhel.in

PART – 2: Price Bid – EMAIL AT pricebid-epd@bhel.in

Tender due (27.06.2019) & RFQ no 8581JB to be mentioned in subject of email.

TECHNICAL & COMMERCIAL BID – PART “1”**(A) Scope of work**

Please refer scope of work attached with enquiry.

- Material to be supplied as per drawing/specification only. Any assumption or approximate or deviation should be brought out in the separate deviation sheet only. If you have not quoted as per our drawing/specification, your offer is liable for rejection.

(B) Bid Opening

Part-1 (Techno-Commercial Bids) only will be opened at 14:30 hrs on due date in the presence of bidders who may like to be present or their representatives. **Date & Time for opening of Part-2: Price Bid / Online Bid will be intimated separately to the shortlisted technically & commercially qualified bidder.**

Price bid of unsuccessful vendors will be returned either by post or by courier.

(C) Delivery Term

The price quoted should be on **F.O.R. BHEL-EPD-STORES / DAP-BHEL EPD BANGALORE BASIS.**

In case of foreign bidders, material has to be transported by air to Bangalore Airport & by road from airport to BHEL EPD Bangalore.

Any deviation to above, offer shall be liable for rejection.

(D) Delivery Period: -

Material to be delivered within 15 days from the date of PO. Date of receipt of material at EPD shall be considered as delivery date.

(E) Terms of Payment

45 days credit after receipt & acceptance of material at BHEL EPD Stores. Offers with advance payments shall be rejected. However credit period can be reduced on loading as below. Bidders opting LC, usance period shall be 120 days from the date of receipt of documents at bank. All LC charges shall be in beneficiary's account.

(G) Loading

Interest @ (SBI MCLR rate+6%) per annum will be loaded for the differential credit period (Specified credit period offered by supplier) and the differential amount (amount of payment specified-amount of payment asked for in the offer stage-wise). In case, the delivery basis stipulated by the Tender is different from that sought for, loading for the corresponding elements viz: freight, insurance etc. shall be made as per prevailing BHEL contract rates existing as on the date of tender opening. No deviation is allowed regarding delivery and payment terms. This is for ranking purpose only.

(I) Late Delivery Charges

In case of delayed delivery, late delivery charges @ 1% per week up to a maximum of 10% will be levied on the defaulting quantity for the delayed period as per the corresponding PO. In case vendor not accepting 10% late delivery charges, difference will be loaded on the quoted price.

(L) Other Conditions

Test certificate, Guarantee Certificate and Instruction Book are to be supplied along with the supply.

(M) Arbitration

Settlement of dispute, if any arises, at any time between the BHEL and the vendors upon or in relation to or in connection with the vendor, the same shall be referred to the sole arbitration of the head of BHEL unit or to person appointed by him. The award of the arbitrator shall be final and binding on both BHEL and the vendor.

(N) Legal Jurisdiction

In case of any legal proceedings, area of jurisdiction will be Bangalore in case of EPD.

(O) Validity of Rates

Bid, including Prices, should be valid at least for 90 days from the opening of price bid or till the completion of supply whichever is later.

(Q) Deviations

A separate sheet indicating deviations in technical specification, commercial terms and conditions to be enclosed in part – '1' (i.e. Techno-Commercial Bid) of the offer. If there are no deviations same has to be certified and duly signed by the vendor.

(R) Clarifications sought by BHEL during Technical & Commercial evaluation

In case BHEL asks for any clarification, the vendor has to submit the same within the specified date otherwise the offer will be evaluated considering the clarifications, if any received as on the specified date. No grace period or late submission is allowed.

Risk & Cost Clause Risk & Cost Clause, in line with Conditions of Contract may be invoked in any of the following cases:

Contractor/ supplier's poor progress of the work vis-à-vis execution timeline as stipulated in the Contract, backlog attributable to contractor/ supplier including unexecuted portion of work/ supply does not appear to be executable within balance available period (#) considering its performance of execution.

Withdrawal from or abandonment of the work by contractor before completion of the work as per contract. Non completion of work/ Non-supply by the Contractor/ supplier within scheduled completion/delivery period as per Contract or as extended from time to time, for the reasons attributable to the contractor/ supplier.

Termination of Contract on account of any other reason (s) attributable to Contractor/ Supplier.

Assignment, transfer, subletting of Contract without BHEL's written permission resulting in termination of Contract or part thereof by BHEL.

Non-compliance to any contractual condition or any other default attributable to Contractor/ Supplier.

RISK & COST

Risk and Cost against Balance Work:

Risk & Cost Amount= $[(A-B) + (A \times H/100)]$

Where,

A= Value of Balance scope of Work/ Supply (*) as per rates of new contract

B= Value of Balance scope of Work/ Supply (*) as per rates of old contract being paid to the contractor/ supplier at the time of termination of contract i.e. inclusive of PVC & ORC, if any.

H = Overhead Factor to be taken as 5

In case (A-B) is less than 0 (zero), value of (A-B) shall be taken as 0 (zero).

*(Balance scope of work/ supply)

Difference of Contract Quantities and Executed Quantities as on the date of issue of Letter for 'Termination of Contract', shall be taken as balance scope of Work/ Supply for calculating risk & cost amount.

Contract quantities are the quantities as per original contract. If, Contract has been amended, quantities as per amended Contract shall be considered as Contract Quantities.

Items for which total quantities to be executed have exceeded the Contract Quantities based on drawings issued to contractor from time to time till issue of Termination letter, then for these items total Quantities as per issued drawings would be deemed to be contract quantities.

Substitute/ extra items whose rates have already been approved would form part of contract quantities for this purpose. Substitute/ extra items which have been executed but rates have not been approved, would also form part of contract quantities for this purpose and rates of such items shall be determined in line with contractual provisions.

However, increase in quantities on account of additional scope in new tender shall not be considered for this purpose.

NOTE: Incase portion of work is being withdrawn, contract quantities pertaining to portion of work withdrawn shall be considered as 'Balance scope of work/supply' for calculating Risk & Cost amount.

LD against delay in executed work/supply in case of Termination of Contract

LD against delay in executed work/supply shall be calculated in line with LD clause of the contract for the delay attributable to contractor/ supplier. For this purpose, contract value shall be taken as Executed Value of work/supply for the purpose of limiting maximum LD value.

Method for calculation of "LD against delay in executed work/supply" is given below.

1. Let the time period from scheduled date of start of work till termination of contract excluding the period of Hold (if any) not attributable to contractor/ supplier= T1
 2. Let the value of executed work/supply till the time of termination of contract= X
 3. Let the Total Executable Value of work/supply for which inputs/fronTS were made available to contractor/ supplier and were planned for execution till termination of contract = Y
 4. Delay in executed work/supply attributable to contractor/supplier i.e. $T2 = (1 - X/Y) \times T1$
 5. LD shall be calculated in line with LD clause of the Contract for the delay attributable to contractor/ supplier taking "X" as Contract Value and "T2" as delay attributable to contractor/ supplier.
- Note: Incase portion of work/supply is withdrawn, no LD shall be applicable for portion of work/supply withdrawn.

PRICE BID – PART “2”

Please refer price format attached with enquiry.

Packing, forwarding, insurance charge (transit risks), taxes & duties (GST) etc. if extra applicable are to be stated clearly with amount. If included in the price, it must be stated clearly. GST will be reimbursed only if the relevant valid documents are furnished.

(S) Price Impact

In case, out of techno-commercial discussion has any price implication, only corresponding price impact is to be submitted by the vendor in a sealed cover within the specified date.

(T) Price Evaluation

Prices shall be considered on total landed cost basis (cost to BHEL). Landed cost shall be worked out on price quoted including freight, excise duty, and sales tax after taking out CENVAT and VAT benefit, as applicable. The comparative statement shall be worked out **on landed cost basis (ITEM WISE)**. The comparative statement of the prices prepared on the reference date shall remain firm throughout the execution period. Any change in duty & tax structure during execution of the contract will not be considered for re-ranking of vendors.

- The lowest price received against BHEL tender need not be commercially lowest price (L1).
- BHEL reserves the right/option to refloat the tender if L1 price is not the lowest acceptable price to BHEL.
- Kindly note that if you are registered under MSMED Act 2006, confirm the same in your quotation and submit the latest valid certificate for micro, small & medium enterprises (MSME) and for the SC/ST ownership, if any, for availing benefits as per the act.
- BHEL wishes to **encourage the participation of micro and small scale enterprises (M&SE).**
- In case L1 vendor is not a micro & small enterprises, 15% purchase preference will be given to the other M&SE for ordering up to 20% of the tender quantity, provided the MSE matches the L1 price. In case of more than one such M&SEs, the share of 20% will be distributed proportionately.
- 4% of our total procurement is earmarked for procurement from micro and small enterprises owned by SC/ST. in the event there is no participation from such micro and small scale enterprises. The same shall be met through other M&SEs.

(U) For this procurement, Public Procurement (Preference to Make in India), order no. P-45021/2/2017-B.E.- II DT 15.05.2017 & 28.05.2018 & subsequent orders issued by respective Nodal Ministry shall be applicable even if issued after issue of this NIT but before finalization of contract/PO/WO against this NIT.

In the event of any Nodal Ministry prescribing higher or lower percentage of purchase preference and/or local content in respect of this procurement, same shall be applicable.

(V) ETHICS IN BUSINESS DEALINGS & FRAUD PREVENTION POLICY

The Bidder along with its associate/collaborators/sub-contractors/sub vendors/ Consultants/ service providers shall strictly adhere to BHEL Fraud Prevention

Policy displayed on BHEL website <http://www.bhel.com> and shall immediately bring to the notice of BHEL Management about any fraud or suspected fraud as soon as it comes to their notice."

ANNEXURE 'J'**Acceptance Certificate**

We hereby accept all terms and conditions of the above tender.

Signature

With name, Designation & seal of the firm

Place:

Date:

ANNEXURE 'K'

Essential Criteria of Techno-Commercial offer(to be submitted by vendor after dully filled up along with techno-commercial offer i.e part-1

ADDRESS OF THE FIRM:

<u>SL.NO</u>	<u>PARAMETER</u>	<u>BHEL SPEC/REQUIREMENT</u>	<u>VENDOR OFFER</u>
1	Name of Contact person	TO BE MENTIONED	
2	E-mail ID	TO BE MENTIONED	
3	Mobile number	TO BE MENTIONED	
4	Land line number	TO BE MENTIONED	
5	Fax number	TO BE MENTIONED	
6	Delivery Term	APPLICABLE AS PER NIT	
7	Payment terms	APPLICABLE AS PER NIT	
8	Late Delivery	APPLICABLE AS PER NIT	
9	Delivery period	APPLICABLE AS PER NIT	
10	Offer validity	APPLICABLE AS PER NIT CLAUSE	
11	Tax and Duty Structure	GST %	
12	GST NO.	SUPPLIER GST NO.	
13	HSN CODE	JUNCTION BOX	
14	MSME – UDYOG ADHAAR MEMORANDUM (UAM)	COPY TO BE ENCLOSED	
15	Compliance to Technical Specification (Junction Box Specification No. - PS- 901-02-0013, Rev.-00, clause no. 6.2 & 8.5 are not applicable for this requirement)	NO: PS-901-02-0013 REV.00	

SIGNATURE OF THE BIDDER WITH SEAL



BHEL-EPD

ELECTRIC & PHOTOVOLTAIC DIVISION

BENGALURU - 560012, INDIA

Purchase Specification

Group : Photovoltaic Module

SPEC. NO: PS-901-02-0013

REV. 00

JOB NO.-STD.

PAGE 01 OF 04

JUNCTION BOX FOR PV MODULE

1.0 ITEM

: Junction Box with cover, Cables and MC Connectors.

2.0 APPLICATION

: For Interconnecting PV Modules & Power Evacuation

3.0 TECHNICAL SPECIFICATIONS:

Sl No.	Description	Parameter
3.1	Rated Current of Junction Box (A)	≥ 15
3.2	Rated Voltage of Junction Box (V DC)	≥ 1500
3.3	Dielectric Strength / Insulation voltage / Breakdown strength (in oil medium) (kV)	≥ 8
3.4	Impulse voltage (kV)	≥ 12
3.5	Degree of Protection (IP)	IP 67 or better
3.6	Diode Technical properties	
a)	Type	Schottky Diode
b)	Rated Current of Diode (A)	≥ 20
c)	Rated Voltage of Diode (V)	≥ 45
d)	Max. Reverse current of Diode (A)	30 (less than 30 is not allowed)
3.7	Junction Box Construction	
a)	Number of Busbar Terminals	Four
b)	Number of Diodes	Three
c)	By pass Diode Connection	Soldered
d)	Bus Bar dimensions connecting with Junction Box Terminals	Width : 6 to 8 mm Thickness : 0.5 mm
e)	Bus Bar Connection method	Soldering to Junction box Terminals
f)	Connecting Cable Details	Two No's of 4 Sq.mm copper cable Tin Coated of 120 cm minimum length (excluding the MC Connectors) for each polarity.
g)	Type of Connectors	MC- 4 Compatible clip on type.
h)	Cable gland	With provision of glands to ensure junction box housing & cable to have stress free interface.
3.8	Operating Temperature	- 40 ⁰ C to + 85 ⁰ C
3.9	Housing Material	PPE / PPO (Black Color)

Revision (00):

Issued By

Prepared By

Checked By

Approved By

Date

SPV Eng.

RKP

AKS

SKG

23.05.19

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ELECTRIC & PHOTOVOLTAIC DIVISION
BENGALURU – 560012, INDIA
Purchase Specification
Group : Photovoltaic Module

SPEC. NO: PS-901-02-0013

REV. 00

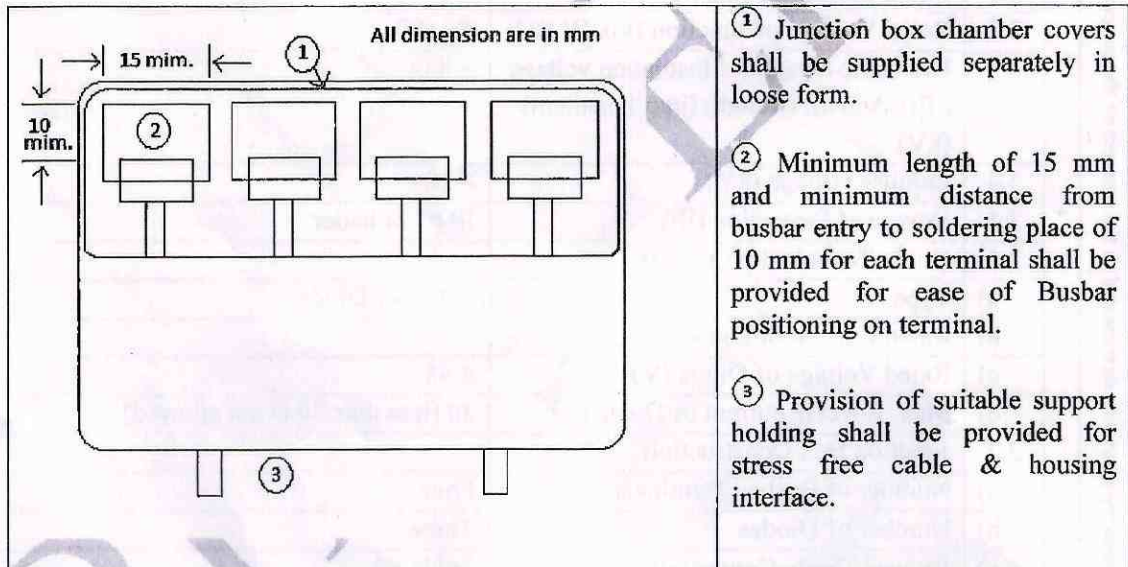
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3.10	Contact Terminal	Base Material Copper as per IS-191:2007 and grade Electrolytic Tough Pitched (ETP) with Tin Plating
3.11	Pollution degree	2
3.12	Application Class	Class A
3.13	Protection Class	Class II

4.0 NOTES:

4.1 Indicative Diagram & construction feature of the junction box is given below.



4.2 Solder material lump of suitable quantity on Junction box terminal to be provided for soldering type.

4.3 Polarity (+ve) & (-ve) shall be printed / marked on junction box cable entry point / cables / MC Connector.

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COPY RIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in anyway detrimental to the interest of the company.		5.0 PACKING CONDITIONS: 5.1 Before packing, the junction box cables shall be neatly wound and tied, the junction boxes & corresponding lids shall be packed in suitable carton box with total weight not exceeding 30 Kg per box. 5.2 Each carton shall have manufacturers label containing: a) Manufacturers Name b) Junction box type / Model No. c) Lot No. d) Quantity 5.3 Final packing box shall have a label containing BHEL Purchase Order No. & date and Specification No. - BHEL / PS-901-02-0013.																		
		6.0 EVALUATION OF JUNCTION BOXES: 6.1 For initial evaluation of the Junction Box technical offer, bidders have to provide <u>one (01)</u> five (5) nos. of free samples of each type along with technical offer. In the event the offered Junction Boxes are not acceptable, bidders will be provided opportunity to offer alternative Junction boxes which meets BHEL specification & requirements. 6.2 Successful bidders have to provide hundred (100) nos. of selected junction boxes and transport through air freight free of cost for IEC / IS certification. Bulk supplies to commence only after approval & clearance from BHEL. — Not APPLICABLE.																		
		7.0 TEST CERTIFICATE / REPORTS / COC: 7.1 The Junction Box shall be Type Tested for the parameter described in section 3.0 Clause from 3.1 to 3.6 and 3.8 to 3.13 from TUV / UL & Certified to the latest standards given below :																		
		<table border="1" style="width: 100%;"> <thead> <tr> <th>Sl.No</th> <th>Item / Description</th> <th>For 1.5 kV System</th> </tr> </thead> <tbody> <tr> <td>01</td> <td>Junction Box</td> <td>IEC 62790</td> </tr> <tr> <td>02</td> <td>Connectors</td> <td>IEC 62852</td> </tr> <tr> <td>03</td> <td>Cables</td> <td>IEC 62930 / EN 50618</td> </tr> </tbody> </table>							Sl.No	Item / Description	For 1.5 kV System	01	Junction Box	IEC 62790	02	Connectors	IEC 62852	03	Cables	IEC 62930 / EN 50618
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02	Connectors	IEC 62852																		
03	Cables	IEC 62930 / EN 50618																		
		7.2 Test Certificate to be provided along with the offer for the following documents a) Raw material used for Junction box and MC connector along with its grade & source. b) By-Pass diode with Electrical Data sheet. c) Test Report on Temperature rise of By-Pass diode with Junction box.																		
		<table border="1" style="width: 100%;"> <tr> <td style="width: 20%;">Revision (00):</td> <td style="width: 15%;">Issued By</td> <td style="width: 15%;">Prepared By</td> <td style="width: 15%;">Checked By</td> <td style="width: 15%;">Approved By</td> <td style="width: 20%;">Date</td> </tr> <tr> <td></td> <td>SPV Eng.</td> <td>RKP <i>[Signature]</i></td> <td>AKS <i>[Signature]</i></td> <td>SKG <i>[Signature]</i></td> <td>23.05.19</td> </tr> </table>							Revision (00):	Issued By	Prepared By	Checked By	Approved By	Date		SPV Eng.	RKP <i>[Signature]</i>	AKS <i>[Signature]</i>	SKG <i>[Signature]</i>	23.05.19
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COPY RIGHT AND CONFIDENTIAL The information on this document is the property of Bharat Heavy Electricals Limited. It must not be used directly or indirectly in anyway detrimental to the interest of the company.		7.3 Certificate of Compliance (COC) shall be provided for the parameter described in Section 3.0, clause 3.7, Section 4.0, clause 4.1 to 4.3, Section 5.0, clause 5.1 to 5.3. 8.0 INSPECTION CRITERIA : 8.1 Visual Inspection, Dimensional & Properties evaluation. 8.2 Single Sampling Plan as per ISO: 2859-1 / IS: 10673-1983, Special Inspection Level S-4, AQL 1.0 8.3 BHEL reserves the right for pre-dispatch inspection at vendor works by BHEL or BHEL nominated agency. 8.4 BHEL at its discretion may waive the pre-dispatch inspection at vendors work based on review of submitted vendor inspection reports. However, the vendor responsibility is not absolved till the material is finally inspected and accepted at BHEL. Rejections if any at BHEL, vendor is liable to replace with good quality materials at vendor cost confirming with this purchase specification. 8.5 Vendor to submit Manufacturing Quality Plan – MQP for review & approval on receipt of purchase order. <i>(Not Applicable)</i>														
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