Annexure – I

PR No.: 12300471, Dated: 11.09.2016
Item : Junction Box
Qty. : 262,000 Numbers

	A. PRE-QUALIFICATION CRITERIA	**Bidder's Confirmation** (Please indicate deviations, if any)
1	The offer shall be quoted only by the original Junction Box manufacturers for SPV module. However OEMs can also quote through their authorized channel partners/ dealers / representatives with a valid authorization certificate.	Manufacturing Plant Location: (Complete Address & Contact Details)
2	Vendors should have a minimum of 1000,000 (One million) Numbers per annum production capacity for Junction Box.	Annual in-house manufacturing capacity for PV Junction boxes:.....Nos. Vendors should provide Documentary evidence for demonstrating their plant capacity published by the way of published annual reports, licenses, third party certification etc...
3	Vendors should have supplied Junction Box of minimum 300,000 (Three hundred thousand) numbers per annum to reputed SPV Module manufacturers. The reputed module manufacturer should have manufactured module of rating 250 Wp or above and shall be IEC certified in the last three years.	Vendors should provide copies of purchase order/ contracts/ delivery documents, performance certificate etc. from their customers viz., PV module manufacturers for supply of JB.
	BHEL RESERVES THE RIGHT FOR INDEPENDENT VERIFICATION OF THE CLAIMS MADE FOR CONFORMANCE TO THE PRE-QUALIFICATION CRITERION. BIDDERS TO ENSURE PROVIDING AUTHENTIC CERTIFICATES / DOCUMENTATION AND CREDENTIALS IN ORDER TO QUALIFY FOR BHEL TENDER PROCESS.	
	B. TECHNICAL	
1.	Junction Box offered shall comply with BHEL Technical Specification No. PS 901 02 0005, Rev. 02.	Acceptable/Not Acceptable
2.	Certificate of conformance to the specification shall be provided with each lot mentioning BHEL Purchase Order number and quantity supplied.	Acceptable/Not Acceptable
3.	Supplier has to replace defective item found during opening of the package at the time of actual use at BHEL.	Acceptable/Not Acceptable
	C. Price Basis	
1.	Price is to be quoted on per Number basis.	Acceptable/Not acceptable

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JUNCTION BOX FOR PV MODULE

1.0 Item : Junction Box with Cover and MC Connectors.

2.0 Application : For Interconnecting PV modules & Power Evacuation

3.0 Rated Current : 12 A min

4.0 Rated Voltage : 1000 VDC min

5.0 Degree of Protection : IP 67

6.0 Certification : TUV / UL Approved

7.0 Temperature Range : -40^0 C to + 85^0 C

8.0 Junction Box Construction

i. Number of Terminals : Four terminals

ii. Number of diode &Type : Three By-pass schottky Diode /Axial mounted.

iii. By pass diode Connection : Soldered

iv. Bus Bar string width & Connection: 6 to 8 mm and Soldering to Junction box.

v. No. of Glands : 2 No's to suit 4 Sq. mm Copper Cable.

vi. Connecting Cable Length : Two No's of 4 Sq.mm copper cable with Tin Coated of 100cm min for each polarity excluding the MC Connectors.

vii. Type of Connectors : MC- 4 Compatible clip on type.

9.0 Housing Material : PPE / PPO (Black Color)

10.0 Contact Terminal : Copper – Tin plated

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3rd Issue	SPV Eng.	RKP	NAR	CNP	20.09.16

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NOTE:

The Junction Box shall be TUV/ UL Certified to the standard (or as Amended latest) as follows:

Junction Box: EN 50548:2011 +A1
Connectors : EN 50521:2008 +A1
Cables : 2PFG 1169/08.07

Test Certificate to be provided along with the offer for the following documents

1. Raw material used for Junction box and MC connector.
2. Raw material grade and the source.
3. By pass diode with Electrical Data sheet.
4. Test Report on Temperature rise of By –Pass diode with Junction box.

INSPECTION AT BHEL:

1. Visual Inspection, Dimensional & Diode Polarity check.
2. Single Sampling Plan as per IS:10673-1983, Special Inspection Level S-4, AQL 1.0

PACKING CONDITIONS:

1. The cable shall be wound and tied, the junction boxes shall be packed in carton box. Each carton shall have manufacturers label containing:
   I. Manufacturers Name
   II. Lot No
   III. Quantity
2. Final packing box shall have a label containing BHEL Purchase Order No. & date and Specification No. - BHEL / PS-901-02-0005.
3. Each lot must be accompanied with Test Certificate.

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