



ಭಾರತ್ ಹೆವಿ ಎಲೆಕ್ಟ್ರಿಕಲ್ಸ್ ಲಿಮಿಟೆಡ್
भारत हेवी इलेक्ट्रिकल्स लिमिटेड

Bharat Heavy Electricals Limited

(A Government of India Undertaking)

ELECTRONICS DIVISION

P.B.No 2606, Mysore Road, Bangalore - 560 026

An ISO 9001, ISO 14001 & OHSAS 18001 Company

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Addendum 04 to RFQ : LKKSCPV001 Dt.24.11.2015 Due Dt.


23.12.2015 for Turnkey multicrystalline solar cell line

Due Date of offer submission- extended to 13.01.2016
Corrigendum in technical specs (corrigenda attached).

All other terms and conditions of RFQ remains unchanged.

Additional General Manager
SC&PV/MM

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 A4-11	PURCHASE SPECIFICATION GROUP: PHOTOVOLTAICS	Spec. No	PS-439-331
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**ADDENDUM TO TECHNICAL SPECIFICATION
FOR
TURNKEY MULTICRYSTALLINE SILICON SOLAR CELL LINE FOR
3000 CELLS PER HOUR GROSS CAPACITY
AT
ELECTRONICS DIVISION, BHEL, MYSORE ROAD, BANGALORE, INDIA 560026**

REVISION DETAILS: (01) Addendum as per page 2 of 2.	PREPARED SC		DATE 21.12.2015
	APPROVED SR	ISSUED ENGG	

 भारत भारती एल BHEL A4-11	PURCHASE SPECIFICATION GROUP: PHOTOVOLTAICS	Spec. No	PS-439-331
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ADDENDUM TO TECHNICAL SPECIFICATION

The following are the revisions in the Technical Specification for turnkey multicrystalline silicon solar cell line.		
S.No.	Item	Supplier Confirmation (Yes / No)
1.	All the process equipments offered including printing (metallisation) and solar cell tester-sorter shall be suitable for processing multi crystalline silicon solar cells of size 156 x 156-mm with 3, 4 and 5 busbar configurations.	
2.	Average efficiency of solar cells ($\geq 17.5\%$) shall be proved for multi crystalline silicon solar cells of size 156 x 156-mm with 3, 4 and 5 busbar configurations during site acceptance test (SAT) at BHEL, Bangalore.	
3.	One set of tools and fixtures each shall be provided for testing of 156 x 156 mm size multicrystalline silicon solar cells with 3, 4 and 5 busbar configurations.	
4.	BHEL will provide Compressed Dry Air (CDA) with Atmospheric Dew point $\leq -40^\circ\text{C}$.	
5.	The POCl_3 bubbler system for diffusion shall be designed for 1.5 Litre capacity quartz bubbler containers suitable for a filled volume of 1 Litre of POCl_3 .	
6.	Location of Chemical Delivery System (CDS) shall be in the ground floor of building no. 18. Wet bench equipments like Acid texturing, Wet Junction isolation & PSG removal, Graphite boat cleaning shall be located in the first floor of building no. 18. Necessary piping from ground floor to first floor for chemical delivery of all chemicals to respective wet bench equipments to be done by the vendor.	
7.	Location of ARC gas cabinets (Silane, Ammonia and N_2O gases) shall be in line with the existing gas cabinets towards east (behind building no. 16). PECVD ARC equipments shall be located in the first floor of building no. 18. Necessary piping for delivery of all above gases to ARC equipments to be done by the vendor.	

All other details remain same as per Specification PS-439-331 Rev. 00.

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