

ANNEXURE I

A. Capacity Details of Machine (LASER SYSTEM for PERC)

Manufacturing Capacity (Major Machines with Quantity)	Type of Major Machines	Quantity
Machines Supplied during last 2 Years (Year wise with quantity)	Scheduled Supply Period	Actual Supply Period
Outstanding Order Book Position(Type of Machines and Name of Customers)		
Liquidation plan of all machines including BHEL machines under consideration of ordering		

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LASER SYSTEM for PERC – Bid formats – Indian Supplier – Indian Currency**ANNEXURE-II**

Details of the orders executed for last two years from the date of enquiry for the LASER SYSTEM for PERC:

S.No.	Details of the equipment/ system: Model number, capacity and other major details	Details of the customer: Name of the organization, Contact person: Name, E-mail, Phone Number, Fax	P.O. No & Date	Delivery Date	E &C Date		Present condition of the system/ equipment; (In continuous operation since dd/mm/yyyy must be mentioned)	Whether AMC was taken (Yes/ No)
					Start Date	End Date		
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								

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UN-PRICED BID FORMAT FOR LASER SYSTEM for PERC – INDIAN SUPPLIER

Enquiry Description	Enquiry No	Enquiry Date	Vendor's Name and Address	

S. No.	Item Description	Units	Qty	Unit Rate	Currency (INR)	Total	Corresponding reference of item specs./ general terms and conditions to be indicated; Remarks
COL 1	2	3	4	5	6	7	13
			(A)	(B)		C=A*B	
1	Deliverable Items**						
1.1	A Laser system complete in all respects with laser source, optics, beam delivery system, vacuum chuck for holding silicon wafer, particle extraction system, safety interlocks and user friendly HMI/software for safe operation conforming to CE or equivalent standard.	Set up	1	Quoted	Quoted	Quoted	
1.1.1	Vacuum chuck suitable for 156.75 mm X 156.75 mm psq c-Si and sq mc-Si wafers and thickness : 180 ±20 µm having marking field size should be Minimum 170 mm X 170 mm	Set	1	Quoted	Quoted	Quoted	
1.1.2	At least two laser sources to cater all the following combinations, suitable for PERC processing: Pulse duration---Wavelength-----Power a. ns regime---IR -----≥ 15 W b. ns regime---Green -----≥ 15 W c. ps/fs regime---UV, IR and Green---≥ 3 W • Spot size 30-70 or 40-80 microns	Set	1	Quoted	Quoted	Quoted	
1.1.3	Two work stations	Set	1	Quoted	Quoted	Quoted	
1.1.4	Beam delivery unit as mentioned in the specifications	Set	1	Quoted	Quoted	Quoted	
1.1.5	Power meter	Set	1	Quoted	Quoted	Quoted	
1.1.6	HMI and software for recipe driven operation compatible with engineering drawing software. Software controlled Laser power, pulse duration, scan speed etc.	Set	1	Quoted	Quoted	Quoted	
1.2	Accessories			Quoted	Quoted	Quoted	
1.2.1	Spare parts package for one year operation	Set	1	Quoted	Quoted		1.2.1

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1.2.2	Maintenance kit	Set	1	Quoted	Quoted		1.2.7
1.2.3	Complete set of auxiliaries for installation of the set up	Lot	1	Quoted	Quoted		1.2.8
1.3	Spares						
1.3.1	Spares for one year of trouble free operation	Lot	1	Quoted	Quoted	Quoted	
1.4	Other (Misc.) charges						
1.4.1	Packing and Forwarding charges	Lot	1	Quoted	Quoted	Quoted	
1.4.2	SubTotal						
1.4.3	IGST	%	1	Quoted	Quoted	Quoted	
1.4.4	Sub total (EXW Price)						
1.4.5 a	Freight B1	Lot	1	Quoted	Quoted	Quoted	
1.4.5 b	Loading / Un-Loading Charges	Lot	1	Quoted	Quoted	Quoted	
1.4.5 c	Freight B2, for EXW, (BHEL)			BHEL	BHEL	BHEL	
1.4.5 d	Loading / Un-Loading Charges B2 (BHEL)	Lot	1	BHEL	BHEL	BHEL	
1.4.6	Insurance (BHEL)			BHEL	BHEL	BHEL	
1.4.7	Total Price (Delivery to BHEL ASSCP Stores)						
2.0	Pre-despatch inspection at OEM works	Lot	1	Quoted	Quoted	Quoted	
3.0	Erection and Commissioning at site/BHEL ASSCP						
3.1	Erection and Commissioning	Lot	1	Quoted	Quoted	Quoted	
3.2	Demonstration at site of installation	Lot	1	Quoted	Quoted	Quoted	
3.3	Post-installation training	Lot	1	Quoted	Quoted	Quoted	
	GST for Service						

** Items may be quoted in same format only as per actual nomenclature and part numbers with quantity and unit price at appropriate location. All columns to be filled. If any item does not carry any value, it must be mentioned as zero ("0").

Actual taxes/ rates as applicable at the time of placement of Purchase Order

Note:

1. In case any Taxes/ Duties exempted, a self-declaration for the same may be attached to the offer along with support document.

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LASER SYSTEM for PERC – Bid formats – Indian Supplier – Indian Currency

2. The current procurement is under Government of India funded project. Concessional taxes/duties, if any, available to BHEL as on date of price bid opening shall be taken into account for evaluating landed cost.
3. Hence All offers shall be evaluated at concessional rates of duties in case the registration certificate is renewed or Government of India funded project concessions available, if any, on or before opening of price bid date or otherwise it shall be evaluated with quoted/prevaling rates as on date of price bid opening for landed cost comparison. However, all suppliers have to accept Concessional taxes/duties in case if the same is available to BHEL as on date of dispatch.
4. Suppliers are requested to quote on FOR BHEL ASSCP Stores, Gurugram. In case of EXW, Please specify the Works address.
5. This Un-Price bid format should be submitted along with Techno-Commercial Bid.
6. Unit rate of spares shall have validity of 5 years post stipulated warranty period.
7. Basic equipment value is defined as price of equipment with accessories and auxiliaries (if any), excluding spares
8. Rates to be quoted in figures with corresponding words.
9. Vendor's undertaking: I/We have read and understood the NIT (Notice Inviting Tender) terms and conditions.

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UN-PRICED BID FORMAT –PRE-DESPATCH INSPECTION (PDI)
CHARGES AT OEM WORKS

(PDI) charges* (per day basis)	For three BHEL Engineer (To be quoted as % of basic equipment value)	Currency
1st day	Quoted	Quoted
2nd day	Quoted	Quoted
3rd day	Quoted	Quoted
4th day	Quoted	Quoted
5th day	Quoted	Quoted

* Rows may be added/ deleted as required, according to training schedule

NOTE:

- Basic equipment value is defined as price of equipment with accessories and auxiliaries (if any), excluding spares
- Travel and hospitality for BHEL engineers will be to BHEL's account.
- Detailed training at OEM works / factory has to be provided by factory engineer to BHEL officials on working of all modes of the equipment along with the accessories.
- Training should also be provided on safety features, task to be performed in case of emergency, etc.
- Detailed training schedule must be submitted along with the bid.
- All Offers shall be evaluated for the training charges quoted for the total no. of days. However, payment shall be released on actual no. of days of training undergone by BHEL Engineer(s) at supplier's works.
- The above training charges at actuals, shall be released after completion of E&C along with 20% supply value stage payment.
- Rates to be quoted in figures with corresponding words.
- Vendor's undertaking: I/We have read and understood the NIT terms and conditions.

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ANNEXURE-VI

UN-PRICED BID FORMAT
SERVICE ANNUAL MAINTENANCE CHARGES (AMC)
(NON COMPREHENSIVE TYPE, SPARES EXCLUDED)

AMC charges after stipulated Warranty for	To be quoted as % of Basic Equipment Value	Currency
1 st Year	Quoted	Quoted
2 nd Year	Quoted	Quoted
3 rd Year	Quoted	Quoted

NOTE:

- a) Basic equipment value is defined as price of equipment with accessories and auxiliaries (if any), excluding spares.
- b) During AMC service, 2 routine visits per a year, each visit shall include general service and maintenance, calibration (if any), etc. and breakdown visits (as and when required) have to be made for ensuring continuous operation of the system/ machine
- c) The service personnel should report within 3 days for attending the problem during emergency visit as a part of AMC.
- d) All software upgrades have to be provided free of cost during AMC period.
- e) The AMC charges will be paid on half-yearly basis after completion each half year of the AMC service period and with submission of service report along with the original invoice as per the terms and conditions of Letter Order during AMC period. These charges will be paid within 30 days from date of submission of service report and original invoice.
- f) If during the AMC period there is any breakdown of the equipment for a duration beyond 7 days from the date of reporting, AMC period will be extended by that duration. This should be complied by the vendor
- g) AMC Order(s) may be placed after expiry of standard warranty quoted at the unit rate(s) quoted. The AMC charges Quoted shall be firm and valid for the period quoted.
- h) AMC Charges quoted for the total number of years shall be considered for landed cost comparison.
- i) Rates to be quoted in figures with corresponding words.
- j) Vendor's undertaking: I/We have read and understood the NIT terms and conditions.

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PRICE BID FORMAT FOR LASER SYSTEM for PERC –INDIAN SUPPLIER

Enquiry Description	Enquiry No	Enquiry Date	Vendor's Name and Address	

S. No.	Item Description	Units	Qty	Unit Rate	Currency (INR)	Total	Corresponding reference of item specs./ general terms and conditions to be indicated; Remarks
COL 1	2	3	4	5	6	7	13
			(A)	(B)		C=A*B	
1	Deliverable Items**						
1.1	A Laser system complete in all respects with laser source, optics, beam delivery system, vacuum chuck for holding silicon wafer, particle extraction system, safety interlocks and user friendly HMI/software for safe operation conforming to CE or equivalent standard.	Set up	1				
1.1.1	Vacuum chuck suitable for 156.75 mm X 156.75 mm psq c-Si and Sq mc-Si wafers and thickness : 180 ±20 µm having marking field size should be Minimum 170 mm X 170 mm	Set	1				
1.1.2	At least two laser sources to cater all the following combinations, suitable for PERC processing: Pulse duration---Wavelength-----Power a. ns regime---IR -----≥ 15 W b. ns regime---Green -----≥ 15 W c. ps/fs regime---UV, IR and Green---≥ 3 W • Spot size 30-70 or 40-80 microns	Set	1				
1.1.3	Two work stations	Set	1				
1.1.4	Beam delivery unit as mentioned in the specifications	Set	1				
1.1.5	Power meter	Set	1				
1.1.6	HMI and software for recipe driven operation compatible with engineering drawing software. Software controlled Laser power, pulse duration, scan speed etc.	Set	1				
1.2	Accessories						

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1.2.1	Spare parts package for one year operation	Set	1				1.2.1
1.2.2	Maintenance kit	Set	1				1.2.2
1.2.3	Complete set of auxiliaries for installation of the set up	Set	1				1.2.3
1.3	Spares						
1.3.1	Spares for one year of trouble free operation	Lot	1				
1.4	Other (Misc.) charges						
1.4.1	Packing and Forwarding charges	Lot	1				
1.4.2	SubTotal						
1.4.3	IGST	%	1				
1.4.4	Sub total (EXW Price)						
1.4.5 a	Freight B1	Lot	1				
1.4.5 b	Loading / Un-Loading Charges	Lot	1				
1.4.5 c	Freight B2, for EXW, (BHEL)			BHEL	BHEL	BHEL	
1.4.5 d	Loading / Un-Loading Charges B2 (BHEL)	Lot	1	BHEL	BHEL	BHEL	
1.4.6	Insurance (BHEL)			BHEL	BHEL	BHEL	
1.4.7	Total Price (Delivery to BHEL ASSCP Stores)						
2.0	Pre-despatch inspection at OEM works	Lot	1				
3.0	Erection and Commissioning at site/BHEL ASSCP						
3.1	Erection and Commissioning	Lot	1				
3.2	Demonstration at site of installation	Lot	1				
3.3	Post-installation training	Lot	1				
	GST for Service						

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PRE-DESPATCH INSPECTION (PDI) CHARGES AT OEM WORKS

PDI charges* (per day basis)	For three BHEL Engineers (To be quoted as % of basic equipment value)	Currency
1st day		
2nd day		
3rd day		
4th day		
5th day		

* Rows may be added/ deleted as required, according to PDI schedule

SERVICE ANNUAL MAINTENANCE CHARGES (AMC), (NON COMPREHENSIVE TYPE, SPARES EXCLUDED)

AMC charges after stipulated Warranty for	To be quoted as % of Basic Equipment Value	Currency
1st Year		
2nd Year		
3rd Year		

NOTE FOR ANNEXURE – IV:

1. Rates to be quoted in figures with corresponding words.
2. Vendor's undertaking: I/We have read and understood the NIT terms and conditions

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