

**Ref. No.:** 14-VII/SKS(2461)14PB/T-93

**IMPORTANT INSTRUCTIONS FOR THOSE VENDORS WHO ARE  
APPLYING IN RESPECT OF LIMITED + WEB TENDER ENQUIRY AFTER  
DOWNLOADING FROM NPL WEBSITE.**

Interested manufacturers/ their authorized vendors having capability of proper supply/installation of required items as per enquiry can also submit their offer directly on the basis of website tender in the manner prescribed in such tender enquiry uploaded on NPL website [www.nplindia.org](http://www.nplindia.org).

In such cases, the tenderer has to **attach invariably a copy of the enquiry downloaded from the NPL website** duly stating in covering letter that the enquiry is downloaded by them and also **attached VENDOR DECLARATION FORM** as per annexure 'A'; failing which the offer not be considered.

**VENDOR’S DECLARATION FORM**

*[The interested vendor shall fill in this form and should submit along with tender document without fail. This should be done on the letter head of the firm]*

1. Vendor’s Legal Name :

2. Vendor’s actual or intended Country of Registration :

3. Vendor’s Legal Address in Country of Registration :

4. Vendor’s Authorization Representative Information

Name :

*Designation* :

Address :

Telephone/Fax numbers:

Email Address :

**5.** Please provide following details in reference  
of firm, as applicable

TIN NO. :

PAN NO. :

TAN NO. :



**CSIR-NATIONAL PHYSICAL LABORATORY**  
(Council of Scientific & Industrial Research)  
**Dr. K. S. Krishnan Marg, Near Pusa Campus,**  
**New Delhi-110 012.**

From : Director  
CSIR-National Physical Laboratory

<b>Tender No.:</b>	14-VII/SKS(2461)14PB/T-93	<b>Date:</b>	30.01.2015
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To

Airmail/Email

Dear Sirs,

We are interested to purchase the following items from the reputed Indian/Foreign Manufacturers or their Sole Authorized Dealers/Distributors/Agents. Kindly send us the Quotations/Performa invoice in closed/sealed covers with wax/cello tape/ company seal indicating minimum delivery period. The sealed envelope containing your quotation super scribed with our reference no., Due Date of Tender and addressed to Director, NPL should reach this office latest by **19.02.2015 upto 5.00 PM (IST)**. The quotations will be opened on **20.02.2015 at 2.30 P.M (IST)**. Onwards in the presence of supplier's representative who wish to present themselves at that time.

<b>Sr. No</b>	<b>Name of item</b>	<b>Qty.</b>	<b>SB/ TB)</b>
1	<b>Solar Grade Single Crystalline Silicon Wafer as per the specifications for details please see Annexure -I</b>	<b>As per Annexure -I</b>	SB*
	<b>Note:</b> 1. A Price reasonability certificate may be submitted stating that you will not sell the item less than the quoted price to NPL. 2. All the bidders should quote price for each and every item alongwith consolidate price.		

➤ *Please see reverse of the page for terms & conditions*

Yours faithfully,

\*  
SB: Single Bid  
TB: Two Bid

**Section Officer (S&P)**

**Encl : Annexure -I**

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E-MAIL: [spo@nplindia.org](mailto:spo@nplindia.org)/ [purchase@nplindia.org](mailto:purchase@nplindia.org)  
Telefax: 011-45608645, Fax: 91-11-45609310

## TERMS & CONDITIONS

1. Your prices/rates must be FOB basis up to international Airport including inland freight/ P&F/documents etc.
2. Freight and insurance will be arranged by NPL.
3. The mode of dispatch to be followed by you must be indicated and tentative size and weight of consignment may also be indicated in the quotation.
4. **PERIOD OF DELIVERY:** The delivery period is the essence of supply; hence it must be indicated specifically in the quotation. Please note that delivery period in case of sight payment, will be determined from the date of Order acknowledgement, which has to be submitted within 21 days of the placement of purchase order. In the case of supplies against LC payment the date of delivery will commence from opening of clear LC.
5. All bank charges in the exporting country will be on the exporters account.
6. The blue/catalogue/pamphlets/literature and Instruction Manual must be attached along with your quotation/performs invoice.
7. The shipment through courier services will not be accepted in normal circumstances.
8. The shipment must be affected through our consolidation agent. The details of our consolidation agent will be indicated in our order.
9. ~~**Earnest Money Deposit (EMD):** EMD in the form of BG (as per annex. 'c') OR FDR/ Bank Draft of a scheduled bank pledged in the name of Director, NPL, New Delhi valid for 180 days for Rs. /- must be submitted alongwith the offer. EMD shall be refunded without any interest at the earliest after finalization of Purchase. Please note that BG/EMD may be forfeited if a bidder withdraws or amends or impairs or derogates its bid during the period of bid validity.~~
10. (a) The payment against imports shall be made through irrevocable L/C, which shall be released on presentation of complete and clear shipping documents OR 100% Payment shall be released through Wire Transfer/TT upon technical acceptance of material.  
(b) The payment against indigenous supplies shall be made direct to the suppliers through RTGS only after receipt of the stores in good condition and technical acceptance by us.
11. **AUTHORIZATION OF INDIAN AGENTS & INDIAN REPRESENTATIVE:**
  - a. In case there is involvement of an /Indian agent/representative in any form as mentioned at (b) below, an authority letter / copy of agreement from the principal manufacturer must be submitted with the quotation.
  - b. Where quoting party/Indian representative claims to be the subsidiary or branch office or an authorized representative of the principal foreign manufacturer/supplier in India, then a copy of approval from RBI/Ministry for operating business in India as Subsidiary/Branch/Liaison office or Joint-Venture may be submitted with offer.
12. **COMMENCEMENT OF WARRANTY PERIOD:** The warranty period of an item shall commence from the date of satisfactory installation/commissioning/demonstration at the project site in National Physical Laboratory, New Delhi. The warranty period and validity of Performance Guarantee shall be extended for the period of delay in satisfactory installation and delay in warranty services.
13. ~~**INSTALLATION:** The equipment should be installed/commissioned and demonstrated, by the supplier at the lab immediately but in any case within **two month** after receipt of the item in the lab and the same will be put under operation to the satisfaction of our technical expert/Scientist who will test the performance of the equipment. No separate charges for installation etc. will be paid to the party beyond the quoted prices.~~
15. **PENALTY CLAUSE:** In case of delay in supply on part of the supplier, a penalty @ 0.5% per week subject to maximum 10% of Order/FOB value will be charged for delayed period.
16. **DISPUTE SETTLEMENT:** *The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute arising between them under or in connection with the Contract. If, after twenty-one (21) days, the parties have failed to resolve their dispute or difference by such mutual consultation, then either the Purchaser or the Supplier may give notice to the other party of its intention to commence arbitration, as hereinafter provided, as to the matter in dispute, and no arbitration in respect of this matter may be commenced unless such notice is given. Any dispute or difference in respect of which a notice of intention to commence arbitration has been given in accordance with this Clause shall be finally settled by arbitration. Arbitration may be commenced prior to or after delivery of the Goods under the Contract.*  
*The dispute settlement mechanism/arbitration proceedings shall be concluded as under:*
  - (a) *In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Director General, Council of Scientific & Industrial Research and if he is unable to unwilling to act, to the sole arbitration of some other person appointed by his willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order.*
  - (b) *In the case of a dispute between the Purchase and a Foreign supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules.*  
*The venue of the arbitration shall be the place from where the purchase order or contract is issued.*

*Notwithstanding any reference to arbitration herein,*

  - (a) *The parties shall continue to perform their respective obligations under the contract unless they otherwise agree; and*
  - (b) *The purchase shall pay the Supplier any monies due the Supplier.*

## Silicon wafers required for solar cells fabrication

Specifications:

S. No.	Specifications	Quantity
1.	<p><b>Solar grade single crystalline silicon wafers (CZ):</b></p> <ul style="list-style-type: none"> <li>• Diameter : 6"</li> <li>• Thickness : <math>200 \pm 20 \mu\text{m}</math></li> <li>• Orientation : <math>\langle 100 \rangle</math></li> <li>• <b>Dopant : Boron</b></li> <li>• <b>Type : P</b></li> <li>• Resistivity : 1.0 – 3.0 Ohm-cm</li> <li>• Oxygen concentration : <math>&lt; 1 \times 10^{16} \text{ atoms/cm}^3</math></li> <li>• Carbon concentration <math>&lt; 3 \times 10^{16} \text{ atoms/cm}^3</math></li> <li>• Minority carrier lifetime : bulk lifetime: <math>10 \pm 2 \mu\text{sec}</math> on virgin wafer</li> <li>• TTV : <math>\leq 40 \mu\text{m}</math></li> <li>• Wafer surface: Clean and free of visible stains.</li> <li>• Compatible with HF:HNO<sub>3</sub> – based acidic texturing or NaOH / KOH saw damage removal.</li> </ul>	4000
2.	<p><b>Solar grade single crystalline silicon wafers (CZ):</b></p> <ul style="list-style-type: none"> <li>• Diameter : 6"</li> <li>• Thickness : <math>200 \pm 20 \mu\text{m}</math></li> <li>• Orientation : <math>\langle 100 \rangle</math></li> <li>• <b>Dopant : Phosphorus</b></li> <li>• <b>Type : N</b></li> <li>• Resistivity : 1.0 – 3.0 Ohm-cm</li> <li>• Oxygen concentration : <math>&lt; 1 \times 10^{16} \text{ atoms/cm}^3</math></li> <li>• Carbon concentration <math>&lt; 3 \times 10^{16} \text{ atoms/cm}^3</math></li> <li>• Minority carrier lifetime : bulk lifetime: <math>10 \pm 2 \mu\text{sec}</math> on virgin wafer</li> <li>• TTV : <math>\leq 40 \mu\text{m}</math></li> <li>• Wafer surface: Clean and free of visible stains.</li> <li>• Compatible with HF:HNO<sub>3</sub> – based acidic texturing or NaOH / KOH saw damage removal.</li> </ul>	1000