



**SATYENDRA NATH BOSE NATIONAL CENTRE FOR BASIC SCIENCES**

[Funded by the Department of Science & Technology, Government of India]

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Ref. SNB/ENQ/GG(JE)/Solar Light/14-15/527/WP

17.07.2014.

Dear Sir,

Sealed quotations are hereby invited for the following items in two parts (Technical and Commercial bids).

One large envelope containing two smaller envelopes containing Part A: Technical Bid and Part B:

Commercial Bid needs to be submitted separately –

Two smaller envelopes should be super-scribed "**Technical Bid**" / "**Commercial Bid**" as the case may be.

<b>Sl. No.</b>	<b>Name of Item</b>	<b>Qty</b>
1.	Supply, Installation and Commissioning of 50 watt LED based (AC) Solar street lighting system (Retrofit) on the existing street light pole of S N Bose National centre for Basic Sciences including the following items all complete.  A) 200 Watt (peak) solar PV modules. B) Module mounting structure made of appropriate GI Structure and GI pipe and clamp. C) 2 x 100 Ah 12 volt maintenance free battery of reputed maker. D) 150 watt capacity micro inverter with inbuilt charge controller and AC charging provision for battery. E) Copper cable 6 sq mm and 2.5 sq mm. F) 50 watt LED based outdoor type light fittings including lamp. G) Associated civil works. H) 10 Amp. DP MCB	41 sets
Note: ☞ See reverse for layout drawing of the proposed Solar Street Lighting System and Type of detailed work is attached herewith.		
Note: ☞ Attached herewith " <b>Annexure I</b> " (as check list) to be duly filled in by the bidder and should be submitted with the Technical Bid only. Offer received without any of the relevant information / certificate / document asked as per "Annexure I" from sl. nos. 01 to 16 may not be considered. The Centre reserves the right to accept or reject offer of the tenderer. The Centre's decision shall be final and binding on the tenderer. Attached documents should be duly marked.		
<b>Technical bid:</b> should contain complete technical information literature/working manual of the quoted item & authorization certificate of the manufacturer. <b>Price Bid:</b> Should contain F.O.R price up to S. N. Bose Centre including terms & conditions.		

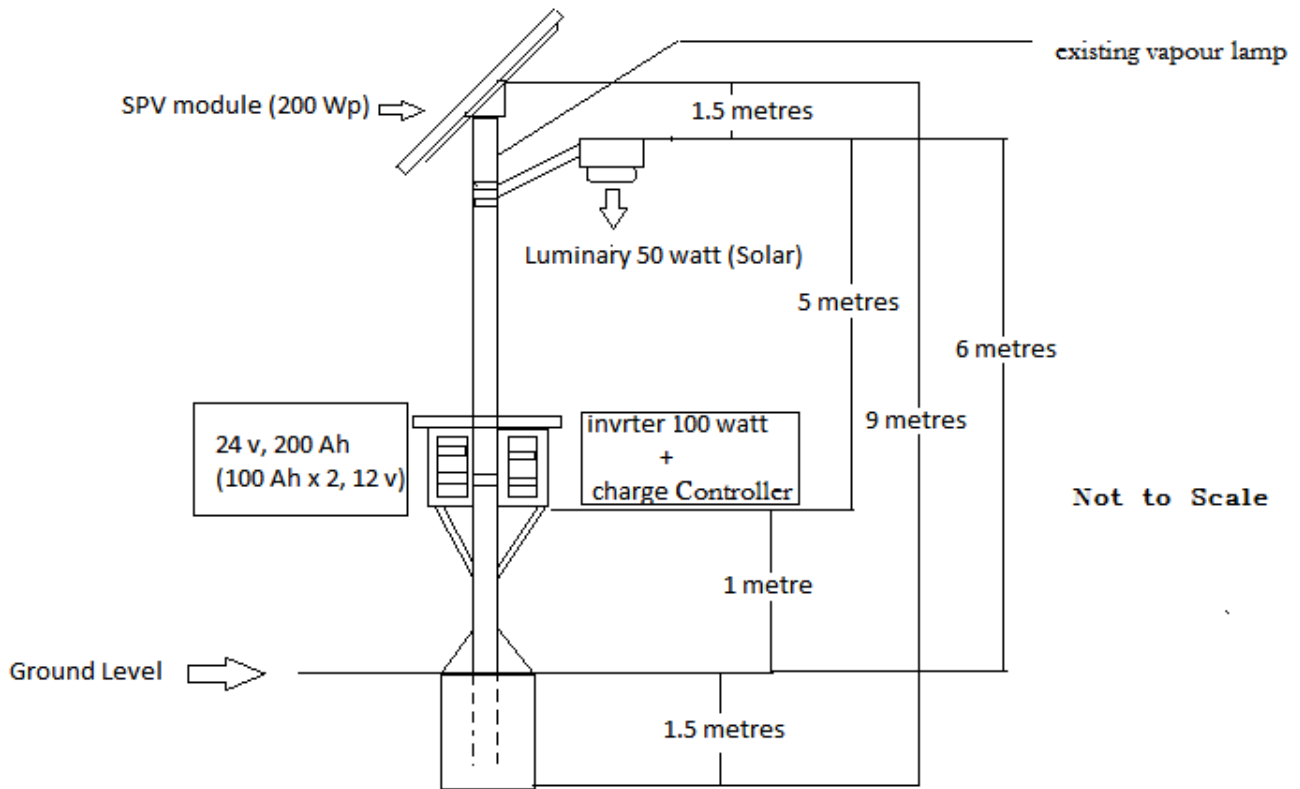
**Note:**

- 1) The quoted price should be inclusive of supply, installation, testing & commissioning etc. all complete.
- 2) Validity should be for 90 days from the date of submission.
- 3) Minimum two (02) years standard onsite replacement warranty is to be provided from the date of commissioning.
- 4) Delivery period should be mentioned in the quotation.
- 6) Our ref. no. should be mentioned on top of the quotation envelope.
- 7) Quotation for the above item should reach this office by **31<sup>st</sup> July, 2014**.

Thanking you,  
Yours faithfully,

S. K. Singh  
AR (Purchase)

## Schematic Diagram of the Solar Street Lighting System



The proposed 50 watt LED based solar street lighting system at the S N Bose Institute Campus

**A. Name of work:** *Supply, Installation and Commissioning of 50 watt LED based (AC) Solar street lighting system (Retrofit) on the existing street light pole of S N Bose National centre for Basic Sciences.*

**B. Items to be installed (Specifications):**

1. 200 Watt (peak) solar PV modules with crystalline solar cells confirming to SEC/IEC61215, 61703 – 2
2. Suitable galvanized structure to hold the solar module at the top of the pole. The structure should withstand a wind pressure of 200 km/ hour (minimum). The module should face south at an inclination angle approx. 15 degree.
3. 2 x 100 Ah, 12 volt, sealed maintenance free battery suitable for solar application having long life. Battery manufactured by only reputed manufacturer shall be acceptable.
4. 150 watt capacity micro inverter with 24 V, DC input 230 V, 50 C/S AC output to operate a 50 watt LED lighting system. The inverter should have an inbuilt charge controller (PWM). The inverter should have a provision to charge the battery from mains in case the battery voltage goes down to a pre determined voltage. (Say less than 21 volt).
5. 6 sq mm copper cable for connecting the Module and charge controller and Battery and Battery to the Inverter.
6. 2.5 sq mm copper cable for connecting inverter output and the lighting fixture.
7. 50 watt LED based outdoor type lighting fixture complete with LED's and casing and proper fixing arrangement and dusk to dawn controller.
8. Necessary civil work as required.

**C. Total number of system to be installed:** 41 sets

**D. Installation and commissioning:**

The installation work should be done without disturbing the existing lighting system. The solar street light will work independently. In case of low battery during monsoon the battery should get charge from mains. Engineering drawing and technical specification of all the items should be submitted to S N Bose centre for approval.

**E. General Terms & Conditions:**

- 1) The bid should be submitted in two bid system each of which is to be submitted in separate envelope. Main envelope should contain the "**Technical Bid**" mentioning the detailed technical specification and terms & condition, except price and the "**Price Bid**" should be enclosed in another envelope containing price of the quoted item in the prescribed format only. Both the envelopes should be separately sealed and sent in a large envelope which should be marked with tender reference number and name of the equipment. Separate bid with applicable EMD should be submitted for each of the items in the technical bid.
- 2) The Tenderer should have high technical, financial reputation with sufficient experience and capable enough for satisfactory supply of similar type of equipment to actual users. Documentary evidence should be submitted in this respect with the technical bid.
- 3) Technical offer should be complete in all respect indicating detailed technical specifications of the offered items, make, model, duties, taxes, delivery period, gross and net weight of the consignment, together with the descriptive leaflet/catalogue/pamphlet/manufacturer's brochure, etc.
- 4) **The offer shall remain valid at least for a period of 90 days. The period starts from the date of closing of tender submission.**
- 5) The Institute shall not be responsible for delay, loss or non-receipt of the tender through post/Air Mail
- 6) The aforesaid Open Tender is being issued with no financial commitment and purchaser reserves the right to change / vary any item or items thereof at any stage.
- 7) No tenderer shall be entitled for any compensation what so ever for rejection/non consideration of their tender.
- 8) Invitation of tender does not constitute any right or claim for issue of purchase order to the tenderer.
- 9) Only Price Bids will be opened in presence of the technically qualified bidders or their authorized representatives who choose to attend on the date and time informed to them after opening of technical bids and its evaluation by the Centre internally.

- 10) The Centre will not be responsible for any inaccessibility of the downloading facility for any reason whatsoever and in that case the tenderer(s) should contact to the tendering authority to verify the fact in case of confusion.
- 11) If any information furnished by the tenderer is found incorrect or false at a later stage he shall be liable to be debarred from awarding the contract.
- 12) A copy of full tender document is to be submitted along with technical bid duly signed & stamped on all pages as an acceptance of all terms & conditions mentioned in tender documents.
- 13) Payment term: a) 50% should be released after satisfactory delivery of materials at site.  
b) Balance 50% may be release after successful installation, testing & commissioning.
- 14) Vendors are requested to submit an Earnest Money Deposit (EMD) amount of Rs.38, 000/- (Thirty Eight Thousand) in the form of Demand Draft in favour of "S. N. Bose National Centre for Basic Sciences", payable at Kolkata. Bid without EMD will not be considered and shall be rejected. EMD should be enclosed with the technical bid only.
- 15) 10% of certified bill value will be retained as Security Deposit and the same shall be refunded without interest after expiry of warranty period (i.e. 24 months) subject to satisfactory operation and maintenance by the vendor.
- 16) EMD of unsuccessful bidder will be refunded without interest after opening of the Commercial bids of the technically qualified vendors. In case of successful bidder EMD will be retained as performance guarantee, which will be adjusted with security deposit and returned without any interest after warranty period.
- 17) EMD will be liable to be forfeited if the vendor withdraws or found anything wrongful in the tender documents at any point of time after submission of bids.
- 18) Centre reserves the right to reject any or all bids without assigning any reason thereof.
- 19) Warranty: The items will be covered under comprehensive onsite replacement warranty for a period of 24 months from the date of commissioning of the system at the Centre.
- 20) Annexure – I of the tender document should be filled up, sealed & signed and submitted with the technical bid along with all relevant documents mentioned therein.

**F. Maintenance:**

The Street light should be maintained by installer for a period of two years free of cost. Thereafter the centre will enter into AMC.

**G. Qualification of Bidder:**

Bidder should be a reputed manufacturer of any of the following item.

- a) Solar PV modules.
- b) Battery (SMF).
- c) Inverter.
- d) LED Luminaries.

**Site Visit:** Bidders are advised to visit the site before submission of quotation to get clear idea of the requirement. For further query please contact Mr.Ganesh Gupta (JE) over phone or in person on any working day during office hours of the Centre.

**H. Signature:** Bidders are requested to duly seal & sign on all the pages submitted as tender documents.

***The bidder should have adequate experience in installation of solar PV System, particularly street lights (Documentary proof on the above should be required).***

### Annexure I

- The following form should be submitted with the technical bid duly filled and signed.
- **Relevant documents must be enclosed with the technical bid as per Sl. no. 01 to 16.**

S/N	PARTICULARS	Yes/No	REMARKS
01	Technical bid & Price bid duly sealed & signed enclosed in separate envelopes as instructed.		
02	<u>Contents of Technical bid</u> (a) Technical details as per specification enclosed with technical bid ⇨ (b) Technical Compliance Statement to be prepared in a separate sheet (and any deviation should be mentioned specifically) ⇨ (c) Literature/Manual of the offered item ⇨ (d) Current Authorization Certificate from the Principal Manufacturer ⇨ (e) Name, address, email & ph. no. of users in India. ⇨ (f) Copy of P.O. and installation certificate with the same specification from at least one user ⇨		
03	Delivery charges on F.O.R basis up to S. N. Bose Centre, Kolkata for indigenous items with detailed break-up of cost		
04	All applicable tax (VAT/CST/Sales/Service tax) should be mentioned		
05	Whether the price quoted is without excise duty, as the centre is fully exempted from payment of excise duty against DSIR certificate.		
06	Copy of Trade License, VAT, PAN, Service Tax Registration no. enclosed with the technical bid.		
07	02 years Standard warranty from the date of installation to be mentioned		
08	Acceptance of payment terms		
09	Delivery/installation time from the date of PO to be mentioned		
10	Enquiry no. should be mentioned on top of all quotation envelopes		
11	Validity of Quotation should not be less than 90 days from the date of submission		
12	Maintenance procedure of the offered item to be mentioned		
13	Contact details of after sales service centres in Kolkata to be mentioned		
14	Bank details of the beneficiary to be mentioned		
15	In case of any defect found after receipt of material or in case of any deviation from the specifications or in case of any operational defect found during the warranty period, any part or the entire material is to be replaced by the supplier at no extra cost to the Centre.		
16	Whether your company has been blacklisted by any Central/State Govt. organization.		

**Note:** Offer received without any of the relevant information / certificate / document asked in the above sl. nos. 01 to 18 may not be considered. The Centre reserves the right to accept or reject offer of the tenderer. The Centre's decision shall be final and binding on the tenderer. Attached documents should be duly marked.

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Seal & Signature of the bidder  
with date