

Shyama Prasad Mukherji College for Women  
Punjabi Bagh (w) , New Delhi - 110026

30.1.2019

CORRIGENDUM

NOTICE INVITING PROPOSAL FOR THE INSTALLATION  
OF 150 KWP ROOF TOP SOLAR PHOTOVOLTAIC SYSTEM

In continuation with our earlier notice no. SPMC/2019/1224 dated 28.1.2019 , Vendors must adhere to the following instructions before submitting the bids. Submission of bids date and time shall remain the same as per the earlier notice i.e. 6<sup>th</sup> February 2019 .

**INSTRUCTION TO BIDDERS**

1. The Bid forms containing the Terms and Conditions, scope of work, makes of materials and financial bid form, **should be returned in original along with the technical bid document, intact, after filling up the same and duly signing in full with stamp, on each page**, failing which the bid shall be liable for rejection. In the event of the space on the terms and conditions / specifications of items/proforma being insufficient for the required purpose, additional pages may be added. Each such additional page must be numbered consecutively, bearing the bid number and be duly signed and stamped by the bidder. In such cases, reference to the additional pages must be made in the bid Form. If any modification of the schedule is considered necessary, you should communicate the same by means of separate letter.

2. **PROCEDURE FOR SUBMISSION OF BIDS:**

The tender should be submitted in „TWO BID“ SYSTEM:-

1) **PART -1 TECHNICAL BID:**

Technical Bid alongwith tender documents (duly signed on each page) to be submitted to SPMC. The Technical Bid to be kept in a sealed envelope super-scribed with “ Technical bid for Survey, Design, engineering, supply, transportation, unloading, storage, installation and commissioning of 150 KWP Solar PV based power project for SPMC

- Board resolution/ Authorization letter for signing of the bid document from the bidder be submitted.
- Prices / Costs of the items **should not be** indicated anywhere in the Technical Bid. This should be followed meticulously failing which the bid is liable to be rejected.
- EMD of Rs. 1.00 Lakh be submitted with the bid in the form of Demand Draft/FDR/ Bank Guarantee.

2) **PART -II FINANCIAL BID:** Price Bid form to be submitted strictly as per the given format **only**, failing which the offer is liable for rejection (renaming or changing format of BOQ sheet will not be accepted).

The financial Bid to be kept in a sealed envelope super-scribed with “ Financial bid for Survey, Design, engineering, supply, transportation, unloading, storage, installation and commissioning of 150 KWP Solar PV based power project for SPMC.

Both technical and financial bids should be kept in a main envelope super-scribed with “ Bid for Survey, Design, engineering, supply, transportation, unloading, storage, installation and commissioning of 150 KWP Solar PV based power project for SPMC.

The cover should also be sealed and addressed to the

**Principal**

Shyama Prasad Mukherji College for Women,  
(University of Delhi)  
Punjabi Bagh(W), New Delhi-110026



**Note: Incomplete form or non-submission of required documents may result into rejection of your offer and no Communication shall be done for submission of documents.**

**3) LATEST HOUR FOR RECEIPT OF THE TENDER:**

Your tender must reach this office not later than the date and time notified in the Tender Notice stated In the TENDER DOCUMENT. Any tender received after that shall be rejected. In the event of the stipulated date of opening of the tender being declared a closed holiday for Govt. offices, the date of opening of the tender(s) will be the next working day.

**4) OPENING OF TENDER:**

The Price/Financial bids of the bidders whose technical bids are found technically suitable only will be opened later. **The decision of the evaluation committee on technical suitability shall be final.**

**5) PRICES:**

- a. Prices/Financial bid are to be quoted in Indian Rupees and must be meaningful and measurable in the context.
- b. **Price must be quoted in bid form failing which the same is liable to be rejected.**
- c. **Allocation of work may or may not be distributed on L1 price.**

**6) Security Deposit:** EMD of successful bidders shall be refund after successful installation & commissioning of the project.

**7) EARNEST MONEY**

1. The tender must be accompanied by a sum of Rs. 1,00,000/- (Rupee One lacs only) as Earnest Money in the form of deposit receipts, pay orders, demand drafts or Bank Guarantee failing which the tender shall be summarily rejected. These forms of earnest money could be any of the Nationalized Banks or by a scheduled bank.
2. Bank Guarantee should be valid for a period 180 days from the date of bid submission.

**8) Performance Bank Guarantee :** Successful bidder shall submit PBG of Rs. 4,00,000/- (Rupee Four lacks only) valid for 5 years after placement of LOI with in 10 days from the LOI.

**TERMS AND CONDITIONS**

**A. ELIGIBILITY CONDITIONS:**

**Bidder must fulfill following criteria:-**

1. The bidder should have experience of executing at least cumulative capacity of 100 KWp Grid Connected SPV Power Plant .
2. The bidder should have experience of executing of at least one Single project of 50kWp Grid Connected SPV Power Plant.

**Financial Capability Experience:-**

1. Firm should have a minimum turnover of Rs.40 Lakhs in last three financial years.

**Bidder should submit following documents along with Technical bid :-**

1. Bankers Report.
2. Balance sheet for last two years (i.e 2016-17 & 2017-18)..
3. Photocopy of GST/service tax registration No., TIN no., PAN no.
4. Declaration that firm is not blacklisted by any government department/ PSU.



## **B. SCOPE OF WORK**

Survey, Design, engineering, supply, packing and forwarding, transportation, unloading, storage, installation and commissioning of 150 KWP Solar PV based power project under Opex model and interconnection to LT/HT (415V/11 KVA) switchyard on turnkey basis at rooftop of Shyama Prasad Mukherjee College, Delhi. Contractor shall provide comprehensive operation & maintenance of the plant for a period of 25 year from the date of successful completion and commissioning of project.

The solar power generating plant is intended to be synchronized with LT/HT buses at various points of load centers. All the equipment required to complete the grid connection with the existing system shall form the scope of work.

- a) Providing Engineering Drawings, Technical data, Structures Calculation, Modules layout drawing, Mounting Structures layout drawing, AC/DC cable Calculation, Layout drawing of AC/DC Cables, Drawing of Lighting Arrestor & Earthing System, operation manuals, catalogues, spare parts list, etc. for said equipment as erected at site.
- b) Insurance of complete work governed by the Contract including the said equipment from the time of dispatch from the manufacturer's factory till the issue of Acceptance Certificate.
- c) Unpacking, checking for damage/shortage, cleaning and erection at site.
- d) Operation and maintenance for 25 years as per schedule
- e) Approval of all drawings from consultants appointed by SPMC is in the scope of contractor.
- f) If there are varying or conflicting provisions in the documents forming part of the contract, SPMC shall be deciding authority with regard to the intentions of the provisions and decisions of SPMC shall be final and binding on the contractor.
- g) Any calculations, designs, drawings, schedules, information data progress charts etc. required by the SPMC in connection with the contract, shall be furnished by the Contractor at his own expenses. The contractor will not be required to furnish drawings, designs and calculations etc for basic designs and employment schedules provided by the Purchaser in case no modification/ deviation is proposed by the contractor for a particular basic design/employment schedule.
- h) All designs and drawings submitted by the contractor shall be based on a thorough study and shall be such that the customer is satisfied about their suitability.

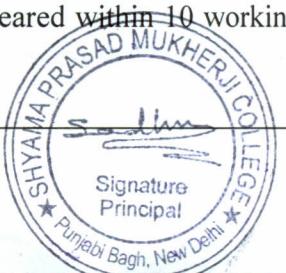
i) The quantity of the SPV system can be increased or decreased depending upon the requirements and design approval.

## **C. PLANT PERFORMANCE EVALUATION**

The successful bidder shall be required to meet minimum guaranteed generation with Performance Ratio (PR) at the time of commissioning and related Capacity Utilization Factor (CUF) as per the GHI levels of the location during the O&M period. PR should be shown minimum of 75% at the time of inspection for initial commissioning acceptance to qualify for release of payment. Minimum CUF of 15% should be maintained for a period of 5 years for fulfilling one of the condition for release of PBG. The bidder should send the periodic plant output details to SPMC for ensuring the CUF. The PR will be measured at Inverter output level during peak radiation conditions. PBG shall be forfeited in case Average CUF falls below 15% during period of 5 years. Minimum guaranteed generation need to be maintained, in case the generated units falls below the 90 percent of minimum guaranteed generation, penalty equivalent to saving corresponding to the loss of generation shall be imposed.

## **D. Payment Term:**

- a) Power purchase agreement shall be signed between the successful bidder and SPMC for a period of 25 years. Monthly invoice shall be generated for the claim of the payment against the generated units. Payment for the generated units shall be paid at the rate of bid quoted by bidder.
- b) Invoice shall be generated on first day of every month and the same shall be cleared within 10 working days. Detailed PPA shall be signed with the successful bidder.



**MAKES OF MATERIALS**  
**AND ADDITIONAL TECHNICAL SPECIFICATIONS**

S.NO	EQUIPMENTS	MAKE
1	Solar Modules	Vikram, Adani, Renewsys, REC
2	Solar Inverter	Delta, SMA, ABB, Fronius
3	Remote Monitoring	SMA, Delremo, Webdyn Machine Pulse
4	Structures	Hot Dipped Galvanized / Cold Rolled Iron
5	DC Cables	Seichem, KEI, Havells
6	AC Cables	Polycab, Havells, KEI
7	Junction Box	Hensei, Doux
8	Metering	L&T/Schneider
9	MC 4 Connectors	Phoneix contact, Tuv300 Certified
10	PVC Conduits	Prakash Conduits, Doux,
11	SPD Devices	Phoneix, Schneider
12	Earthing Pits (Conductive Concrete based)	Marconite
13	Earthing Cable	Polycab, Havells/KEI
14	Lightning Arrestor (ESE based)	LPI (Australia)
16	DC FUSE	L&T/Schneider
17	DC Switchgear	L&T/Schneider
18	AC Switchgear	L&T/Schneider
19	Weather Monitoring Sensors	Reinwise

- i. The plant shall be completely in shadow free zone. Drawings and simulation details shall be submitted for approval. Generation reports as per PV Syst shall be submitted.
- ii. CEIG approval, if any, shall be in the scope of the vendor.
- iii. Net metering shall be taken care by the Vendor. Costs pertaining to meter, application form and liasoning requirements should be factored in the bid.
- iv. Before ordering final BOM, it shall be submitted for approval.
- v. All the drawings, schematics and calculations shall be submitted to SPMC for approval before execution. Drawings shall be submitted in both CAD and PDF version.
- vi. Structural load calculations for the system load shall be given for each rooftop.
- vii. Wherever the electrical panels are exposed to outdoor conditions, IP 65 rated enclosures shall be used.
- viii. Integration with the building panel shall be through a separate switch placed next to the building panel. Vendor shall install the switch in a proper enclosure with necessary termination glands. Connection from the switch shall be made to the bus bar of the building's panel.
- ix. Cable trays used for the cable routing and handling shall be covered from the top by putting up covers.
- x. Lightning protection drawings as per the covered radius of the building shall be submitted along with the earthing details for approval.
- xi. Earthing strips shall be connected through welding only. Earth pits design shall be submitted for the number of earth pits and fault calculations. LA, AC side, DC side, each would have minimum 2 nos. Of earth pits with the separate down conductors for each earth pit. Soil resistivity test of the site shall be carried out for the necessary calculation purpose.
- xii. Solar plant shall be synchronized with DG set, synchronization scheme shall be submitted for approval.
- xiii. The online monitoring system shall be handed over to SPMC for the necessary review of the performance of the plant..



## BID FORM

### ANNEXURE 1

Tender No: ( SPMC//2019/SPVPP/150KWP/1224) for  
"TENDER FOR ROOFTOP SOLAR PHOTOVOLTIC SYSTEM FOR SHYAMA PRASAD MUKHERJI COLLEGE

To:

Principal  
Shyama Prasad Mukherji College for Women,  
(University of Delhi)  
Punjabi Bagh(W), New Delhi-110026

Gentlemen and/or Ladies:

Having examined the bidding documents including addenda's if any, the receipt of which is hereby duly acknowledged, we, the undersigned, offer for "**TENDER FOR ROOFTOP SOLAR PHOTOVOLTIC SYSTEM FOR SPMC**" In conformity with the said bidding documents for the unit price rate in

figure: \_\_\_\_\_ In Words:

( \_\_\_\_\_ )

We undertake, if our bid is accepted, to complete delivery of all the work specified in the Contract within 2 months from LOI.

Our bid is valid up to \_\_\_\_\_, 2019 and it shall remain binding upon us and may be accepted at any time before the expiration of this validity.

Until a formal contract is prepared and executed, this bid, together with your written acceptance thereof in your notification of award shall constitute a binding contract between us.

We understand that you are not bound to accept the lowest or any bid you may receive.

Date:

Signature \_\_\_\_\_

Name:

Duly authorized to sign Bid  
for and on behalf of (In the Capacity of),

Seal:

**Note: This bid form should be duly filled, signed and dated and sealed. Bid form not duly filled will not be considered for evaluation**

