



राष्ट्रीय प्रौद्योगिकी संस्थान दिल्ली

NATIONAL INSTITUTE OF TECHNOLOGY DELHI
(An autonomous Institute under the Ministry of HRD, Govt. of India)

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No.132/JE(C)/NITD/MAINT/2016

Date:- 03.02.2017

NOTICE INVITING TENDER

Name of Work: Supply & Installation of Porta Cabin for Labs at Permanent Campus of NIT Delhi.

On behalf of the Director, NIT Delhi. The Sealed Item rate Tenders from the registered Sole manufacturers in the specialized field of Porta Cabin manufacturing in two bid system is invited for **Supply & Installation of Porta Cabin for Labs at Permanent Campus of NIT Delhi.**

The technical bid shall be opened on date 27.02.2017 at 03.30 PM and shall be received upto 03.00 PM in the Room No. 314 (Estate Office). The qualified tenders in Technical bids shall be considered for opening of Financial Bid. The date and time of opening of Financial Bid shall be intimated accordingly.

Estimated Cost-Rs. 14,77,900.00

Time period for Supply & Installation: Strictly within 20 Days

Schedule of Quantities

S.No.	Item Description	Quantity/area	Rates per Sqft area	Amount (In Rupee)
1.	30feetX 20feet x 11feet Porta Cabin made of PUF panels (Heavy density) contains 02no.s Double side Doors (Including all fittings) with 09 no.s of Sliding Windows (Including all fittings) with false ceiling and including all Electrical fittings & Wirings. As per Technical Specifications	600sqfeet		
2.	30feetX 20feetx11feet Porta Cabin made of PUF panels (Heavy density) contains 02no.s Double side Doors (Including all fittings) with 09 no.s of Sliding Windows (Including all fittings) with false ceiling and central	600sqfeet		

	partition and including electrical wirings and fittings. As per Technical Specifications			
3.	Supply, Installation, Testing & Commissioning of 2KWP Solar Power Plant (Without Batteries)	01no.		
Necessary Taxes/DVAT etc.				
Freight/Cartage (Including loading & Unloading)				
Total INR (In Figure)				
Total INR in Words:				

Signature & Stamp of Agency/Tenderer

General Conditions of Tender

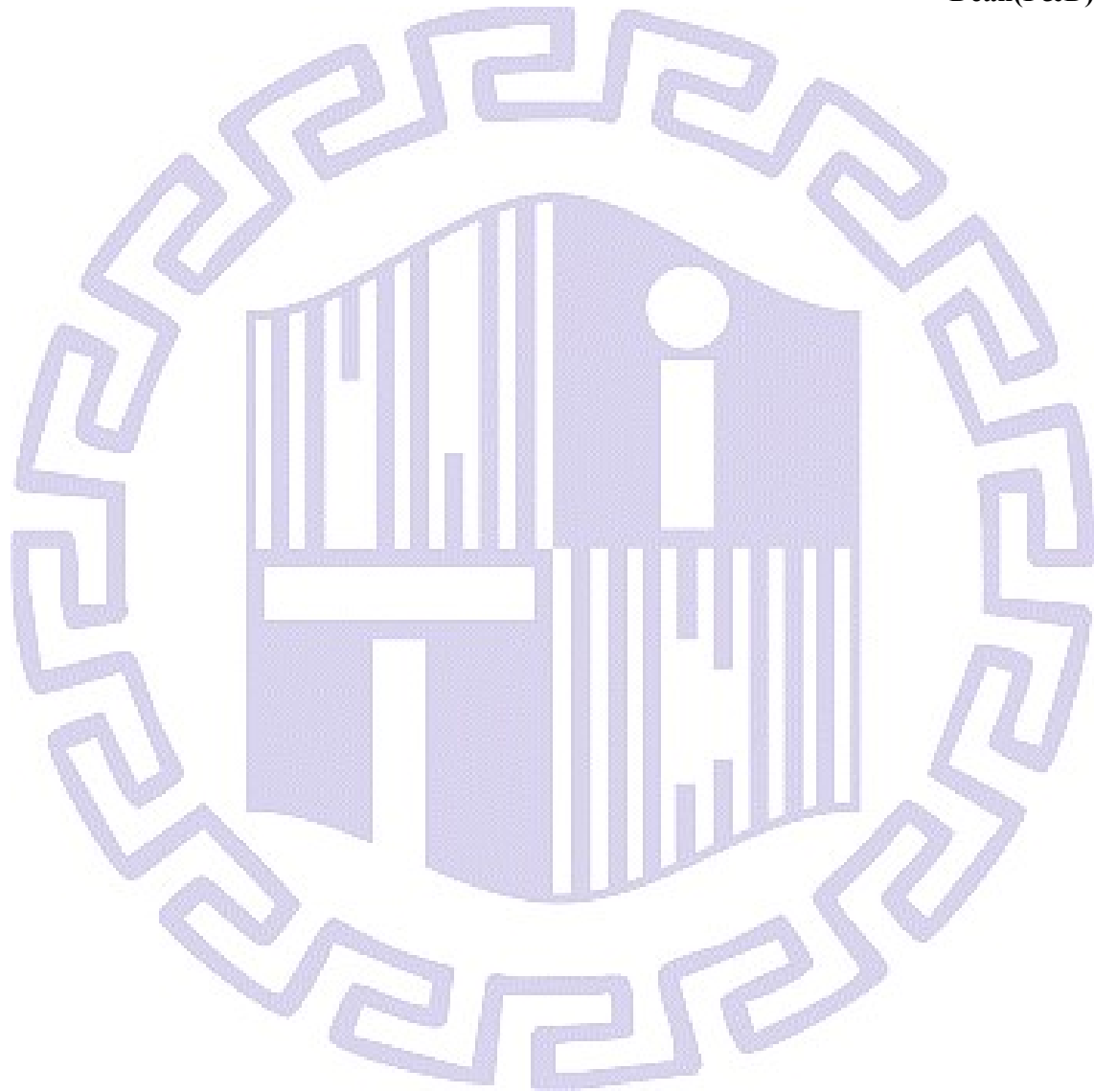
1. The Agency/Tenderers should have completed Successfully/Satisfactorily the similar nature of works amounting to not less than Rs. 40 Lakhs in total in previous three years.
2. The agency should be a manufacturer and certificate of registration should be enclosed with the technical bid.
3. The agency/Tenderer should sign & stamp each and every document of the tender.
4. The strength of Manpower on roll of agency to execute this work should be enclosed with Technical bid.
5. The financial turnover of the agency should not be less than 20 Lakhs in each preceding three years. The balance sheet duly certified by the Chartered Accountant to verify the Turnover shall be enclosed with Technical Bid.
6. The agency should have a registered/Authorised workshop and office in Delhi NCR. The necessary proof to this effort be enclosed with Technical Bid.
7. The Agency should inspect the site before quoting the rates for tender.
8. No any Running payment shall be made to agency.
9. Separate Demand Draft in favour of “**Director NIT Delhi**” amounting to Rs. 500.00 as tender fee (non-refundable) should be furnished along with earnest money.
10. A Demad Draft in Favour of “**Director NIT Delhi**” be drawn amounting to Rs. 30,000.00 as Interest Free Earnest Money Deposit along with the Technical Bid.
11. An amount of 10% of the work value would be withheld as Security Deposit. Which shall be released after Six months of successful Completion of Work.
12. If there is any dispute/doubt, the decision of the Competent Authority, National Institute of Technology Delhi shall be final.
13. The agency should submit drawings for prior approval before manufacturing any of porta cabin part.
14. The freight/cartage charges shall include all loading and unloading of the goods/ materials supplied by the agency.

15. F.O.R. delivery at NIT Delhi Permanent Campus/Location.

16. A penalty of 1% per day upto Max. Of 10% of the tendered amount shall be imposed on the agency for completion of work beyond stipulated date of Completion.

17. Necessary Govt. taxes & cess shall be deducted at the time of settlement of Bills.

Dean(P&D)



TECHNICAL SPECIFICATIONS

Insulated Wall & Ceiling panels details:

Product – Steel fabricated insulated Porta cabin.

Base frame –The Porta Cabin shall be provided with Base Beam.

Floor -The room floor shall be constructed of 19mm thick cement particle board. The floor shall be covered with 1.5mm thick Vinyl flooring sheet.

Wall – The wall cladding of the Porta Cabin shall be made out of PUF insulated sandwich Panels. The panel shall be made out of 0.50mm thick Precoated GI sheet on both side of PUF. Total thickness of the wall shall be 50mm Thick.

Roof –The roof shall be made out of corrugated profiled sheets.

Ceiling – The clear height of ceiling is 11 feet, Ceiling shall be made up of 50mm thick PUF sandwich panels, (appliance white colour)

DOORS – Double Doors:- M.s frame shall be made from pressed steel using CR steel of 1.5mm thick. Door shutter shall be made of suitable M.S frame shall be covered with 0.5mm thick pre-coated sheet both side PUF insulation. With all fittings i.e. 04 no.s of hinges on each panel of door. Handles, Towerbolt, L-drop (sliding Bolt), Door Stopper, Door Closer to be provided for locking.

WINDOWS- Window shall be made out from aluminium section with all fittings i.e. Handles, Tower bolt Etc. with mosquito nets (Nelson make) shall be provided with window.

Painting –After fabrication all the Exposed structure shall be painted with anti corrosive paint/ Primer & Emulsion paint.

AC openings –Space/ Openings for split A.C, windows, Exhaust Fans shall be provided.

Electrical BOQ for each Block Items Porta Cabin – (30X20X11ft.)	
Tube Lights With Switch point Make of Tube light- Philips, Wipro	<u>16 no.s Inside, 4 No.s Outside</u>
16 amp Switch & Sockets	<u>06 No.s</u>
05 Amp Switch & Sockets	<u>06 No.s</u>
Wall Fan (400mm), Fan Switch,Fan Regulator Make of wall Fan- Crompton,Havells, Usha	<u>08 No.s</u>
AC Socket with MCB	<u>04 No.s</u>
Exhaust Fans	<u>02 No.s</u>
Double Door with door closer and door stopper	<u>02 No.s</u>
Windows	<u>09No.s</u>
All above items to be complete with wirings, fitting Fixures, etc.	
<u>All Electrical fittings should be wired/Electrified with Anchor, Havells or equivalent make</u>	

Specifications for Grid connected SOLAR POWER PLANT

DESIGN AND ENGINEERING

Any equipment installed in the plant and the building shall be designed in such a way to allow all required maintenance works to be undertaken by the manufacturer without affecting the regular performance of the remaining equipment located on the same buildings.

PV MODULES

The PV modules shall be guaranteed for 25 Years for performance (first 10 years @ 100%, next 15 years @ 90% and at the end of 25 years @ 80% efficiency)

72 cell module

Power o/p per module: 250 Watt peak

Module efficiency: Greater than or equal to 15%

Operating Temperature: -40 degree Celsius to 75 degree Celsius.

Junction box: IP65 (with surge protection device)

INVERTER

Output power: 2 Kilowatt @UPF

Output Voltage: 230 Volt A.C \pm 5% pure sine wave

Frequency: 50 Hz \pm 0.2 Hz

Efficiency at linear load: Greater than or equal to 85%

Technology: DSP based PWM Technology

Power device: IGBTs cum MOSFETs

Nominal I/P DC Voltage: 48V

Input DC Voltage range: 44V-60V \pm 2%

Overload: 200% for 8 seconds

THD (Linear load): less than or equal to 5%

DATA LOGGING AND MONITORING

Parameters: Internal data log for 7 days for following parameters @ 1hour interval scanning: Date; time; PV Voltage; PV current; PV Power; output voltage AC; Output current AC; Output cum. kWh.

Solar energy generated: Cumulative solar energy kWh measurement.

PC Datalogging: PC GUI based data monitoring and storage.

OTHER SPECIFICATIONS

MPPT tracking feature is mandatory.

Protection: Over current, PV reverse polarity, Reverse current flow, High temperature.

Dielectric strength: 2KV input/output with ground and 1.5KV between input and output after removal all grounds and control cards.

IEC Standard: IEC61683, IEC60068-2-1,2,14,30,31; IEC62093

GRID CONNECTION

Grid connected with net metering facility is required.

Grid input voltage range: WW-155 VAC – 280 VAC \pm 10V and NW- 185 VAC- 265VAC \pm 10V

Charging current: Max. 30Amp \pm 2 Amp (Factory settable)

STRUCTURE

In house Manufactured Hot dip galvanized structural steel coated with 80 micron zinc to be used to withstand a wind speed upto 150 km/hour.

CABLES & ACCESSORIES

All the cables shall be supplied confirming IS 694 and shall be of 650 V/ 1.1 kV grade as per requirement. PVC copper/ Aluminum cables shall be used as per the design requirement.

A.C. SIDE EQUIPMENTS

The system is so designed that Primary source will be solar and secondary source will be grid.

MAKE LIST/BRANDS

Solar Module: NAVITAS, Vikram , Warree

Inverters: Delta, Sungrow, MICROMAX, SUKAM, LUMINOUS, MICROTEK

Cables: Havells, Polycab, Anchor, Finolex

String Combiner Box: Hensel, Onexis

Module Mounting Structure: As per standard

