

GOVERNMENT OF NATIONAL CAPITAL TERRITORY OF DELHI
DELHI TECHNOLOGICAL UNIVERSITY
(FORMERLY DELHI COLLEGE OF ENGINEERING) Ph. 27296326
SHAHBAD DAULATPUR: BAWANA ROAD: DELHI-110 042

No. F.DTU/SP/211/12-03/14-15/Project

Dated:

NOTICE INVITING TENDER

E-Tenders along with illustrated literature/leaflets for the supply/execution of item(s)/stores/work detailed below are invited from the Manufacturers or their Authorized Distributors/Suppliers/Channel Partners only **(the bidder should be registered with the Delhi VAT Department and carry a valid Tax Identification Number issued by it to ensure that the delivery of goods is made from Delhi against a sale invoice issued from Delhi)** in two-bids system through 'e' procurement solution only as per the guidelines and terms & conditions given in tender document - details of the NIT along with terms & conditions, specifications etc. can be seen/downloaded at/from the website.

The interested tenderers should upload duly signed tender form and their bids along with scanned copies of all the relevant certificates, documents etc. in support of their technical & price bids - all duly signed - on the: <https://govtprocurement.delhi.gov.in>. latest by **18/11/2015 up to 02.30 P.M.** **An index prepared after pagination of all documents may also be uploaded** The technical bids will be opened online on **18/11/2015 at 3.00 P.M.** {those bidders only whose original instrument of EMD amount is dropped in Tender Box placed in the office of Officer In-charge (S&P) in the presence of the bidders who wish to be present and will also be displayed on the website. For participation in the tender through e-procurement solution, the tenderers are required to have digital certificate and get registered with application Service Provider NIC.

Tender document is also available for viewing on the website of Delhi Technological University, Delhi at www.dtu.ac.in

Yours faithfully,

EMD: Rs. 12,500/-

Officer In-charge (S&P)

| S.NO. | DESCRIPTION | QTY. |
|-------|--|--------|
| 1. | Supply of 5 KW PV System (as per specification) | 01 Set |

*Detailed Technical Specifications on next page...

TECHNICAL SPECIFICATION

| Sr. No. | ITEM DESCRIPTION | Make |
|---------|---|---|
| 1 | Photovoltaic Panels 250 Wp | SunPower/Solar Frontier/Photon/CEL/Microtek etc |
| 2 | PCU (Grid Tied) with MPPT Charge Controller | SMA/Semikron/ABB/Sukam/Microtek etc. |
| 3 | Photovoltaic Panels Structure | Standard make |
| 4 | AJB | Standard Make |
| 5 | DCDB | Standard make |
| 6 | ACDB | Standard make |
| 7 | Cable & Wire | Polycab/Havells/HPL/Microtek etc |
| 8 | Earthing System(Pipe) , lighting Arrestor | Standard make |

Other Technical Details & Eligibility Criterion:

ELIGIBILITY CRITERIA

1. The firm in existence since more than three years and registered under the companies act and rated by MNRE approved rating agencies for PV installations.
2. The products/systems/devices quoted in tender should be as per MNRE standard/specifications.
3. This item is being purchased for the purpose of research; therefore the firm must have experience of execution of **customized research projects** of minimum 2 kW solar PV **in academic institutions** of Delhi/Central Govt. Further, the firm is required to submit the report of satisfactory operation of the PV system from the Principal Investigator of the project/Head of the Department/institution.
4. The firm must have valid DVAT registration. (Pl. attach copy of valid VAT Registration certificate).
5. Tenderer should quote only if he is eligible.

1. SOLAR PHOTOVOLTAIC MODULES

- 1.1 The total solar PV array capacity should not be less than 5 kWp and should comprise of crystalline modules of minimum 250 Wp and above wattage. Module capacity less than minimum 250 watts should not be supplied. The module type must be qualified as per IEC 61215 latest edition for crystalline silicon. SPV module conversion efficiency should be equal to or greater than 15% under STC. Modules must qualify to IEC 61730 Part I and II for safety qualification testing. Certificate for module qualification from IEC or equivalent to be submitted as part of the bid offer. Self undertaking from manufacturer/supplier that the modules being supplied are as per above.
- 1.2 The PV module shall perform satisfactorily in humidity up to 100% with temperature between – 40°C to + 85°C. Since the modules would be used in a high voltage circuit, the high voltage insulation test shall be carried out on each module and a test certificate to that effect provided.
- 1.3 The predicted electrical degradation of power generated not exceeding 20% of the minimum rated power over the 25 year period and not more than 10% after ten years period of the full rated original output (As per MNRE Standards).
- 1.4 Other general requirement for the PV modules and subsystems shall be the following
 - a. Raw materials(solar Cells) and technology employed in the module production processes shall have to be certified and a certificate giving details of major materials i.e. cells,

Glass, back sheet, their makes and data sheets to be submitted for the modules being supplied by the bidder.

- b. The rated output power of any supplied module shall have tolerance of +/- 3% as per MNRE standard specs.
- c. The peak-power point voltage and the peak-power point current of any supplied module and/or any module string (series connected modules) shall not vary more than 2 (two) per cent from the respective arithmetic means for all modules and/or for all module strings, as the case may be. The rated power of the module specified in “watt Peak” under STC may not have any negative tolerance.
- d. Except where specified, the front module surface shall consist of impact resistant, low-iron and high-transmission toughened glass.
- e. The module frame, if any, shall be made of a corrosion-resistant material which shall be electrolytically compatible with the structural material used for mounting the modules.
- f. The module shall be provided with a junction box with either provision of external screw terminal connection or sealed type and with arrangement for provision of by-pass diode. The box shall have hinged, weather proof lid with captive screws and cable gland entry points or may be of sealed type and IP65 rated.
- g. IV curves at STC and NOCT should be provided. The manufacturing process of the module and Major components of the module – solar cell, front glass, backsheet, encapsulant, sealant, their make and datasheet may be submitted by the bidder.

2. MODULE STRUCTURE

- 2.1 The array structure shall be made of hot dip galvanized MS angles of size not less than 40 mm x 40 mm x 5mm size. The minimum thickness of galvanization should be at least 85 microns. All nuts & bolts shall be made of very good quality stainless steel. The minimum clearance of the lowest part of the module structure and the developed ground level shall be 600 mm.
- 2.2 Leg assembly PV Module mounting structure made of different diameter galvanized tubes may be accepted. The work should be completed with supply, fitting fixing of clamps, saddles, nut & bolts etc. While quoting rate, the bidder may mention the design & type of MMS. The minimum thickness of galvanization should be at least 85 microns. All nuts & bolts shall be made of very good quality stainless steel.
- 2.3 The structure shall be designed to allow easy replacement of any module. Each structure shall have a provision to adjust its angle of inclination to the horizontal as per the site conditions.
- 2.4 The array structure shall be so designed that it will occupy minimum space without sacrificing the output from SPV panels at the same time it will withstand severe cyclonic storm with wind speed upto maximum 150 kmph.
- 2.5 The supplier/manufacturer shall specify installation details of the PV modules and the support structures with appropriate diagrams and drawings. Such details shall include, but not limited to, the following:
 - a) Determination of true South at the site;
 - b) Array tilt angle to the horizontal, with permitted tolerance;
 - c) Details with drawings for fixing the modules/junction/terminal boxes;
 - d) Interconnection details inside the junction/terminal boxes;
 - e) Structure installation details and drawings;
 - f) Electrical grounding (earthing);
 - g) Inter-panel/Inter-row distances with allowed tolerances; and
 - h) Safety precautions to be taken.

3. POWER CONDITIONING UNIT/INVERTERS:

3.1 The Power Conditioning Unit/Inverters must conform to the latest edition of IEC/ equivalent BIS Standards as specified below:

Efficiency Measurements - IEC 61683

Equivalent BIS

Environmental Testing - IEC 60068 2 (1,2,14,30)/Equivalent BIS Std

3.2 The PCUs required shall be of 5 KVA, should convert DC power produced by SPV modules into AC power and adjust the voltage & frequency levels to suit the local grid conditions. The 5 KVA PCU with grid interactive shall feed power to the A.C. load in the DTU.

3.3 Common Technical Specification:

Control Type: Voltage source, microprocessor assisted, output regulation

Output voltage: Three phase, 440 V ac adjustable up to 480V (+12.5 %, - 20 % V ac)

Frequency: 50 Hz (+0.5 Hz, -0.5 Hz)

Continuous rating: 5 KVA

DC link voltage range: 100 to 300 V Nominal

Power: 5 KVA

Total Harmonic Distortion: less than 3%

Operating temperature Range: 0 to 55 deg C

Housing cabinet: PCU to be housed in suitable switch cabinet, Within IP 20

Power Control: MPPT

3.4 Other important Features/Protections of PCU:

Mains (Grid) over-under voltage and frequency protection

Fool proof protection against Islanding.

Included authentic tracking of the solar array's maximum power operation voltage (MPPT).

Array ground fault detection.

LCD and piezoelectric keypad operator interface Menu driven

Automatic fault conditions reset for all parameters like voltage, frequency and/or black out.

MOV type surge arresters on AC and DC terminals for over voltage protection from lightning-induced surges.

PCU should be rated to operate at 0 -55 deg. Centigrade unless provision for air conditioning is included in PCU Over load capacity (for 10 sec) should be 200% of continuous rating.

3.4.1 The PCU shall be Hybrid One and shall give the preference to feed the Loads from Solar Energy being produced and shall draw the additional power from mains to meet the load requirements in the case load is more than solar energy being produced.

3.4.2 Since the PCU is to be used in solar photo voltaic energy system, it should have high operational efficiency.

3.4.3 The idling current-if no load, must not exceed 2 percent of the full-load current.

3.4.4 In PCU there shall be a direct current isolation provided at the output by means of a suitable isolating transformer.

3.4.5 The PCU shall be capable of operating in parallel with the grid utility service and shall be capable of interrupting line-to-line fault currents and line-to- ground fault currents. The PCU shall be able to withstand an unbalanced output load to the extent of 30 %

3.4.6 The PCU shall have an appropriate display on the front panel to display the instantaneous AC power output and the DC voltage, current and power input. The display shall be visible from outside the PCU enclosure. Operational status of the PCU, alarms, trouble indicators and AC and DC disconnect switch positions shall also be communicated by appropriate messages or indicator lights on the front of the PCU enclosure.

3.5 Electrical safety, earthing and protection

a. Internal Faults: In built protection for internal faults including excess temperature, commutation failure, overload and cooling fan failure (if fitted) is obligatory.

b. Galvanic Isolation: Galvanic Isolation is required to avoid any DC component being injected into the grid and the potential for AC components appearing at the array.

- c. Over Voltage Protection: Over Voltage Protection against atmospheric lightning discharge to the PV array is required. Protection is to be provided against voltage fluctuations in the grid itself and internal faults in the power conditioner, operational errors and switching transients. Earth fault supervision: An integrated earth fault device shall have to be provided to detect eventual earth fault on DC side and shall send message to the supervisory system.
 - e. Cabling practice: Cable connections must be made using PVC Cu cables, as per BIS standards. All cable connections must be made using suitable terminations for effective contact. The PVC Cu cables must be run in GL trays with covers for protection.
 - f. Fast acting semiconductor type current limiting fuses at the main bus- bar to protect from the grid short circuit contribution.
- 3.6 The PCU shall include an easily accessible emergency OFF button located at an appropriate position on the unit.
 - 3.7 The PCU shall include ground lugs for equipment and PV array grounding.
 - 3.8 The PCU enclosure shall be weatherproof and capable of surviving climatic changes and should keep the PCU intact under all conditions in the room where it will be housed. The INVERTER shall be located indoor and should be either wall / pad mounted. Moisture condensation and entry of rodents and insects shall be prevented in the PCU enclosure.
 - 3.9 Components and circuit boards mounted inside the enclosures shall be clearly identified with appropriate permanent designations, which shall also serve to identify the items on the supplied drawings.
 - 3.10 All doors, covers, panels and cable exits shall be casketed or otherwise designed to limit the entry of dust and moisture. All doors shall be equipped with locks. All openings shall be provided with grills or screens with openings no larger than 0.95 cm. (about 3x8 inch).
 - 3.11 Maximum Power Point Tracker (MPPT) Maximum power point tracker shall be integrated in the PCU to maximize energy drawn from the array. The MPPT should be micro processor based to minimize power losses. The details of working mechanism of MPPT shall be mentioned. The MPPT must have provision (manual setting) for constant voltage operation.
 - 3.12 Operation outside the limits of power quality as described in the technical data sheet should cause the power conditioner to disconnect the grid.
 - 3.13 Automatic reconnection after the grid failure is restored. PCU shall have the facility to reconnect the PCU automatically to the grid following restoration of grid subsequent to grid failure condition.
 - 3.14 Inverters should be of very high quality having high efficiency and should be capable of running in isolated mode. The inverter should be completely compatible with the charge controller and distribution panel.
 - 3.15 The inverter shall be designed for continuous, reliable and prime power supply as specified. The inverter shall have high conversion efficiency from 25 percent load to the full rated load. The efficiency of the inverter shall be minimum 90% at full load and more than 80% at partial load (50%-75%).
 - 3.16 The inverter shall have high overload capability. The overload capability of the inverter shall be a minimum of 200% at rated full load.
 - 3.17 The output power factor of the inverter should be of suitable range to supply or sink reactive power.
 - 3.18 The output voltage of the inverter shall be sinusoidal with harmonic distortion less than 3% THD.
 - 3.19 The Inverter shall have internal protection arrangement against any sustained fault in feeder line and lightning in feeder circuit.
 - 3.20 The dimension, weight, foundation details etc. of the inverter shall be clearly indicated in the detailed technical specification and the same should be submitted along with the bid.
 - 3.21 Specifically the inverter should be Single phase static solid state type power conditioning unit. Both AC & DC lines shall have suitable fuses and contactors to allow safe start up and shut down of the system. Fuses used in the DC circuit should be DC rated.

3.22 Inverter shall have arrangement for adjusting DC input current and should trip against sustainable fault in the Distribution system and shall not start till the fault is removed.

3.23 Inverter output have several settings from 3 KVA to 5 KVA so that it can be set at a particular KVA beyond which the inverter shall trip depending on the system load for the purpose of controlling overdrawing from the predetermined load. Inverter should not start under any fault condition and should trip under severe unbalanced condition.

4. AC DISTRIBUTION BOARD (ACDB)

This shall consist of box of suitable powder coated metal casting. One feeder per phase shall be provided in ACDB with MCB of suitable capacity installed at each feeder in the ACDB. **One Electronic Energy Meter, ISI make, Three Phase, of good quality shall be installed in ACDB suitably placed to measure the consumption of power from SPV Power Plant.** Proper rating MCB shall be installed at every feeder (in case of single phase output also, there shall be three feeders) to protect feeders from short circuit current as per requirement of the site. A separate dedicated feeder from conventional/grid line to PCU/Inverter as well as ACDB should also be installed. A separate change over switch of proper rating should be suitably installed in the ACDB to isolate the existing connected load from the SPV system and cater the power to the existing load from conventional/grid line, in case of emergency. ACDB should be connected between PCU and Load.

Proper separation of distribution line of load for operation of other load of the Courts should be made so that there is no overload for the SPV Plant.

5. DC DISTRIBUTION BOARD (DCDB)

This shall consist of box of suitable powder coated metal casting. In this box, a separate arrangement which shall consist of MCCBs of suitable specifications & which can withstand respective flow of current, with the purpose of providing the option for isolating the battery bank & SPV arrays should be made. There shall be copper bus bars of suitable rating. Proper rating HRC fuse & MCCB/Isolator for DC application should be suitably installed in DCDB as battery bank isolator.

6. CABLES

6.1 The length of cable shown is indicative & actual length may vary depending on layout, design & site condition.

6.2 All cables shall be PVC insulated 1100 V grade conforming to IS: 694-1990 or IS: 1554 (Part-I).

6.3 The wiring for module inters connection shall be with hard PVC conduit of BIS approve make. All Tees, Bends etc shall also be BIS approve make hard PVC material

6.4 Cables in the array yard shall be laid direct in ground at a depth of 500 mm in the excavated trenches along the approved route and covered with sand cushion. A continuous single brick protective layer of first class brick shall be placed over the entire length of the underground cable before refilling the trench with loose soil. Alternatively, 6" wide continuous layer of 1." thick concrete cable markers may also be provided as protective cable cover. The cables shall be laid inside class-B, GI pipes of suitable size under road crossings, drains, sewerage lines, entry or exit points of the buildings or where there are chances of mechanical damage.

6.5 Cables inside the control room shall be laid in suitable Cable Tray.

6.6 All wires shall conform to IS: 694-1990 (as amended upto date) and should be of 650/1100 volt grade as per requirement. Only copper conductor wires of reputed make shall be used. Cable terminations shall be made with suitable cable lugs & sockets etc, crimped properly and passed through brass compression type cable glands at the entry & exit point of the cubicles. The panels' bottoms should be properly sealed to prevent entry of snakes inside the panel.

6.7 All cable/wires shall be marked with good quality letter and number ferrules of proper sizes so that the cables can be identified easily.

6.8 The terminal end of cables and wires are to be fitted with good quality letter and number ferrules of proper sizes so that the cables can be identified easily.

(TO BE SUBMITTED ALONG WITH TECHNICAL BID)

TENDER NOTIFICATION NO: -----

Phone No:- 27871018

UNDERTAKING

The Registrar,
Delhi Technological University,
Bawana Road,
Delhi-110042

We the undersigned (herein after called as Contractor/Vendors/Suppliers) hereby offer to execute supply of items as per specification against which we have quoted over rates and for which this tender may be accepted at the rates stated there in and subject to the terms & conditions set forth for such items as may be ordered by the Registrar, Delhi Technological University or officer acting on his behalf.

Date this _____ **Day of** _____

Signature of Contractor _____

Address _____

Guidelines/Procedure to be followed in introduction of 'e'-procurement solution:

1.Payment of cost of Tender documents: The collection of cost of Tender documents is dispensed away with, as there is no physical supply of tender documents and also to have absolute anonymity of bidder participating in e-procurement solution. The bidders can view/download the tender documents from the: <https://govtprocurement.delhi.gov.in> .

2.Submission of bids: The bidders who are desirous of participating in 'e'- procurement shall submit their price bids in the standard formats prescribed in the Tender documents, displayed at : <https://govtprocurement.delhi.gov.in>. The bidder should upload the scanned copies of all the relevant certificates, documents etc. in the: <https://govtprocurement.delhi.gov.in> in support of their price bids. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity and copies thereof may also be submitted in the office of the Officer In-charge (S&P), DTU along with original EMD before the specified date & time. In the event of the specified date for physical submission of EMD along with copies of bid documents is declared a holiday, the same will be received up to the appointed time on the very next working day. However, documents of the bidders downloaded online or requisitioned subsequently only will form the basis for deciding the tender.

3.Payment of Bid Security (Earnest Money Deposit): The EMD shall be in the form of the **BG/Fixed Deposit Receipt** of a scheduled bank issued in favour of Registrar, Delhi Technological University, Delhi and the zerox copy thereof is to be scanned and uploaded along with the bid, and the original shall be sent to DTU so as to reach before the date & time of closing of the bids; failing which bid will be rejected. The Bid Security (EMD) of unsuccessful bidders will be discharged immediately after finalization of the order/contract without any interest. However, firms registered with NSIC etc., are exempted from submitting EMD provided such registration includes the item(s) they are offering are manufactured by them and not for selling products manufactured by other companies.

4.Price Bid Opening: The Price Bids of only technically qualified bidders (whose bids satisfy the prescribed technical specifications/parameters and have also submitted all requisitioned documents & EMD) will be opened online at the specified date & time and will subsequently be evaluated to determine the lowest bidder. The result will be displayed on the: <https://govtprocurement.delhi.gov.in> which can be seen by all the bidders who participated in the tenders. There shall not be any negotiation normally. However, in exceptional cases, negotiations can be held with the lowest evaluated responsive bidder only. Counter offers tantamount to negotiations and shall be treated at par with negotiations.

5.Processing of Tenders: The concerned officer/officers will evaluate and process the tenders as done in the conventional tenders and will communicate the decision to the bidder online.

6.Payment of Performance Security: The successful tenderer shall furnish a Bank Guarantee/FDR of the value of 05% of the basic cost of the item for a period of 60 days beyond the warranty period from a nationalized bank to ensure the satisfactory performance of item supplied. The performance guarantee is to be submitted at the time of installation / demonstration of equipments. In case the performance of the item is not found satisfactory, the amount of Performance Security will be forfeited & credited in university account.

7. Participation of Bidders at the time of opening of bids: Bidders have two options to participate in tendering process at the time of opening of Bids:

(i). Bidders can come at the place of opening of bids (electronically) as done in the conventional tender process.

(ii). Bidders can visualize the process online.

8.Participation Financial Rules for e-procurement: The e-procurement system would be applicable for purchase of goods, outsourcing of services and execution of work as prescribed in GFRs.

OFFICER IN-CHARGE (S&P)
DELHI TECHNOLOGICAL UNIVERSITY,
SHAHBAD DAULATPUR, BAWANA ROAD, DELHI - 110 042

TERMS AND CONDITIONS

Procedure for submission of bids: The bidders who are desirous of participating in 'e'- procurement shall submit their technical and price bids in the standard formats prescribed in the Tender documents, displayed at: <https://govtprocurement.delhi.gov.in>. The bidder should upload the scanned copies of all the relevant certificates, documents etc. after page-numbering all documents and tender document and prepare an index thereof in the: <https://govtprocurement.delhi.gov.in>. in support of their price bids. The bidder shall sign on all the statements, documents, certificates, uploaded by him, owning responsibility for their correctness/authenticity and copies thereof may also be submitted in the office of the Officer In-charge (S&P), DTU along with original EMD. However, documents of the bidders downloaded online or requisitioned subsequently only will form the basis for deciding the tender.

1. Manufacturers (OEMs) or their Authorized Distributors/Suppliers/Agents/Channel Partners only should submit their bids. **The bidder should be registered with the Delhi VAT Department and carry a valid Tax Identification Number issued by it to ensure that the delivery of goods is made from Delhi against a sale invoice issued from Delhi.**
2. ALTERATION IN THE SPECIFICATION.
 - (i) The specifications mentioned/issued with this form of tender must not be altered by the Suppliers.
3. INCOMPLETE TENDERS
4. The Bidder is expected to examine all instructions, forms, terms and specifications in the bidding documents. Failure to furnish all information/documents, as asked for in the NIT, or submission of a bid not substantially responsive to the NIT in every respect, will be at the Bidder's risk and may result in rejection of its bid.
5. CANCELLATION OF TENDER/ CONTRACT/ IN PART OR IN FULL IN CASE OF DEFAULT IN CONTRACT/SUPPLY:

If the Supplier, in the opinion of the Institute, fails or neglects to comply with any of the terms & conditions forming, part of the order issued, the head of institute shall without prejudice to any other right or remedies under the contract, has the right to cancel the contract /order by giving 15 days notice in writing to the Suppliers/firms without being liable to pay compensation for such cancellation.
6. Tender shall be uploaded as per guidelines indicated for e-procurement solution.
7. Demonstration of equipments has to be arranged by the suppliers, if desired by the institute. The technical committee may visit production facility if so desired for sample verification.
8. The quotation should be valid for a period of one year from the date of opening of the tender.
9. Rates are to be quoted in INR (Rupee terms) only and any revision thereof is not allowed after the tenders have been opened.
10. The delivery period should be clearly mentioned against each item, incase, the items are not readily available, ex-stock offer will be preferred.
11. Rates should be quoted F.O.R Institution. Any additional tax/duties namely Custom Duty (against Custom Duty Exemption Certificate)/Excise Duty etc., if applicable for, should be mentioned clearly in the technical bid.
12. Consignment will not be insured at the Institute/University Cost.
13. **Bidder, if is not the Original Equipment Manufacturer (OEM), must submit OEM's or their Distributor's Authorization to quote/sell the product(s).** Preference will be given to quotation pertaining to indigenous products. However, where suitable substitutes are not available and item need to be imported the following clarification/information should be given.
 - o Whether the item will be imported by the intended tenderers against its own import license or university will have to provide Custom Duty Exemption Certificate (CDEC).
 - o Name and address of the foreign supplier, make & model of the offered product and authorization to sell from OEM or their Distributor/ Authorized Chanel Partner.
 - o Delivery period including information about mode of dispatch and possible duration (after dispatch) for receipt of item at the port.
 - o Whether the item required any special preparation for installation. In case yes, full details should be given regarding operation maintenance of the items.
 - o In case of costly/sophisticated items whether the tenderers will arrange any special training regarding operation / maintenance of the items.

- Nature of assurance for the supply of spares after the warranty period.
14. The payment will be made within 30 days after the successful demonstration/installation of the equipment and fulfilling of other obligations (like training etc., if any) as per the purchase/work order, against a Bill/Invoice; containing therein details of goods delivered/services performed. Rejected items/goods should also be removed within 30 days after which no responsibility will be accepted by University.
 15. In the event of the item(s) being imported product(s), Custom Duty Exemption Certificate (CDEC) will be issued by the University on the written request of the supplier; who, in turn, will furnish copies of relevant Customs Related Documents namely Airways Bill, Packing List, TR-6 challan etc. along with Bill/Invoice.
 16. Conditional quotations and/or incomplete quotations in any respect will be rejected.
 17. In case you cannot quote for one or more of the items asked for in the tender the word "NOT QUOTED" (in the rate column) should be indicated.
 18. The specification of the item quoted by the firm should confirm to the University specifications. Confirmation, in this respect should be specifically mentioned in the tender. Where the tenderer feels that the specification of the item not fully given or differ, from the specification of the item mentioned by the university, the exact specification of such item should be attached with the tender indicating the item quoted.
 19. The Firm is required to link the University specifications with catalogues & leaflets/literature and also **mention Make and the Model for each item**. Detailed features, for compliance of specification should be provided on specification sheet & appropriate reference i.e. page no. & para of literature, leaflet wherefrom the relevant information has been checked, should be indicated.
 20. **EARNEST MONEY:-** EMD should be attached with the technical bid. The EMD shall be in the form of the **BG/Fixed Deposit Receipt** of a scheduled bank issued in favour of Registrar, Delhi Technological University, Delhi. Zerox copy thereof is to be scanned and uploaded along with the bid, and the original instruments shall be sent to DTU so as to reach before the date of closing of the bids. Failure to furnish the original instrument before the closing of the bid, will entail rejection of bid and blacklisting. **If the tenderer after acceptance of the tender refused to take up the purchase order, his Earnest Money will be forfeited.** Any tender received without / less Earnest Money deposit shall be summarily rejected.
 21. The Purchase Order/Contract will be awarded to the successful Bidder whose bid has been determined to be responsive and has been determined to be the lowest evaluated bid, provided further the Bidder is determined to be qualified to execute the Order/Contract satisfactorily.
 22. There shall not be any negotiation normally. However, in exceptional cases, negotiations can be held with the lowest evaluated responsive bidder only. Counter offers tantamount to negotiations and shall be treated at par with negotiations.
 23. The Competent Authority reserves the right to reject any or all the tenders and annual the bidding process at any time prior to award of Contract, without assigning any reason, without thereby incurring any liability to the affected Bidder or Bidders, and his decision will be final.
 24. The supplies shall have to be made within the period specified in the purchase order failing which the order shall be cancelled and the Earnest Money will be forfeited. However, in exceptional circumstance and, on written request, from the supplier/tenderer, extension of date for supply of the material will be considered. Extension in supply period is at the sole discretion of the competent authority.
 25. Service manuals, wherever available/ required, should be provided along-with the Equipments.
 26. The University reserves the right at the time of award of PO/Contract to increase or decrease the quantity of goods and services originally specified in the Schedule of Requirements without any change in unit price or other terms and conditions. Further, the quantities in the PO/Contract may be enhanced by 30% within the delivery period.
 27. In the case of purchase of may items against one tender, which are not inter-dependent or where compatibility is not a consideration, comparison would be made on the basis of prices quoted by the firms for identifying the lowest quoting for each item.
 28. **WARRANTY:** All products must have a minimum of One Year Warranty. A Warranty Certificate should invariably be supplied along with the item at the time of delivery. If after delivery, acceptance and installation and within the guarantee and warranty period, the operation or use of the goods proves to be unsatisfactory, the supplier shall rectify the defects, errors or omissions by repair or by partial or complete replacement on free of cost basis.
 29. The Competent Authority reserves the right to levy liquidated damages up to 2% of the value of the order for delayed supply. If the supply is delayed beyond the extended period, the University reserves the right even to cancel the order and forfeit the EMD of the firm/ tenderer.

30. PERFORMANCE SECURITY DEPOSIT:- The successful tenderer shall furnish Performance Security Deposit of the value of 05% of the basic cost of the item in the shape of Bank Guarantee/FDR etc. from a nationalized bank pledged to Registrar, DTU, for a period of 60 days beyond the warranty period to ensure the satisfactory performance of item supplied. The performance guarantee is to be submitted at the time of installation / demonstration of equipments. In case the performance of the item is not found satisfactory and/or the Supplier fails to complete its obligation under the contract/purchase order, the amount of Performance Security will be credited in University account.
31. DEFAULT: - In the event of default and unsatisfactory service of the contractor/Supplier firm, the DTU will be at liberty to repair/get the item serviced from other party at the cost of supplier/contractor/ tenderer.
32. In case of software items, the suppliers should ensure that:-
 - o Legal software is supplied in original sealed pouches / P. K. T.
 - o A license agreement is enclosed with it.
 - o A registration card is available for software.
33. FAILURE AND TERMINATION: - If the Contractor / Supplier fails to deliver the stores or any installment thereof within the period fixed for such delivery or at any time repudiates the contract before the expiry of such period, DTU may without prejudice to the right of the purchaser recover damages for breach of the contract.
34. The technical & financial bids of only those bidders will be opened who fulfill the eligibility criteria and whose documents are found in order. If any of the date earmarked for opening of technical or financial bids happens to be a holiday, the bids will be opened on the very next working day.
35. For any query/clarification in r/o technical aspect of the enquiry, **HOD (Electrical Engineering.)**, DTU may be contacted.
36. Notwithstanding the provisions relating to extension of time, penalty and cancellation of tender/contract for default, the vendor shall not be liable for forfeiture of its performance security/ liquidated damages or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of Force Majeure (i.e. an event or situation beyond the control of the vendor that is not foreseeable, is unavoidable, and its origin is not due to negligence or lack of care on the part of the vendor; such as wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes etc.). If the performance in whole or in part or any obligation under the contract is prevented or delayed by any reason of force-majeure for a period exceeding 60 days, either party may at its option terminate the contract by sending a written notice without any financial repercussions on either side.
37. Disputes, if any, arising out of this tender shall be subject to exclusive jurisdiction of Courts of Delhi/New Delhi only.

OFFICER IN-CHARGE (S&P)
DELHI TECHNOLOGICAL UNIVERSITY,
SHAHBAD DAULATPUR, BAWANA ROAD, DELHI - 110 042

CHECK LIST OF DOCUMENTS TO BE SENT WITH TECHNICAL BID.

| S.No. | Particulars of documents | Page no. | No. of pages |
|-------|---|----------|--------------|
| 1. | Proof of EMD (mention amount with instrument number and date) | | |
| 2. | Proof of PAN no. (mention no.....) | | |
| 3. | Proof of VAT/Sales Tax Registration No and VAT Return copy of fourth quarter for last three financial year date of tender. | | |
| 4. | Brochure/Leaflets/Technical Information, including Make & Model, Imported/Indian of the item(s) | | |
| 5. | UNDERTAKING as per page no. 7 of Tender Document, duly signed. | | |
| 6. | Detailed Technical specifications, Terms & Conditions and Delivery period etc. to be submitted on firm's letter head | | |
| 7. | Authorization Certificate from Original Equipment Manufacturer (OEM) or their Distributor to quote/sell the product, in case the Bidder is not the OEM. | | |
| 8. | Warranty Certificate from manufacturer or authorised dealer of manufacturer. | | |
| 9. | P.Os Copies having executed similar items/order copy with at least 3 financial yrs. date of tender. | | |
| 10. | Satisfactory report from PI to be submitted. | | |

Note: All copies of above documents should be duly signed and stamped by the tenderer before uploading.

Signature of tenderer:

Name:

Name of firm:

Telephone No.....

INDEX

| S. no. | Particulars of documents | No. of pages |
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Pagination must be completed properly .

Supply of 5KW PV System in Electrical Engg. Deptt.