



TENDER FOR SUPPLY, INSTALLATION, AND COMMISSIONING OF 100 KWP SOLAR POWER GENERATION SYSTEM

(100 KWP DC GRID-CONNECTED ROOFTOP TURNKEY SOLAR-PHOTOVOLTAIC PROJECT)

at

Entrepreneurship Development Institute of India, Ahmedabad



ENTREPRENEURSHIP DEVELOPMENT INSTITUTE OF INDIA (EDII)

(Via Ahmedabad Airport & Indira Bridge); P.O. Bhat 382 428 - Dist. Gandhinagar Gujarat - India

Phone: +91-79-6910 4900/4999/5000, 161; Fax: +91 79 23969164; Email: admin@ediindia.org ;

Website: www.ediindia.org



INVITES QUOTES FOR THE SUPPLY, INSTALLATION, AND COMMISSIONING OF 100 KWP SOLAR POWER GENERATION SYSTEM

(100 KWP DC Grid-Connected Rooftop Turnkey Solar-Photovoltaic Project)

INTRODUCTION: Entrepreneurship Development Institute of India (EDII), Ahmedabad, was set up in 1983 as an autonomous and not-for-profit Institute with the support of apex financial institutions – the IDBI Bank Ltd., IFCI Ltd., ICICI Bank Ltd., and State Bank of India (SBI). The Government of Gujarat pledged twenty-three acres of land on which stands the majestic and sprawling EDII Campus. EDII has been recognized as the Centre of Excellence by the Ministry of Skill Development and Entrepreneurship, Govt. of India.

EDII MISSION

- To augment the supply of new entrepreneurs through education, training, and research.
- To increase the competitiveness of MSMEs
- To contribute to the dispersal of business ownership and thus expand the social base of the entrepreneurial class
- To institutionalize entrepreneurship development strategy at the national and international level

Relevant Information at a Glance:

SR NO	CONTENTS	DESCRIPTION
1	Description of Works	Supply, installation, and commissioning of 100 KWP Solar Power Generation System <i>(100 KWP DC Grid-Connected Rooftop Turnkey Solar-Photovoltaic Project)</i>
2	Location	Entrepreneurship Development Institute of India, Nr. Village Bhat, Via Ahmedabad Airport & Indira Bridge, Bhat 382428, Dist. Gandhinagar.
3	Possession of Site	Immediately on issuance of Letter.
4	Commencement day of Work	Immediately on issuance of Letter.
5	Earnest Money/ Security Deposit	<p>2% of the total value of the contract in the form of a bank demand draft favoring M/s. Entrepreneurship Development Institute.</p> <p>A. Any Bid submitted without EMD will be summarily rejected.</p> <p>B. The Bidders should submit the EMD along with the technical bid. The EMD should be in the form of Demand Draft in favour of EDI of India, payable at Ahmedabad and the same should be valid for a period of 6 months from the date of submission of the Bid.</p> <p>C. EMD of all unsuccessful Bidders will be refunded by the EDII within 30 Business Days of the Bidder being notified as being unsuccessful without any interest.</p>



		<p>D. The EMD of the Successful Bidder will be released on completion of work without any interest.</p> <p>E. Micro & Small Enterprises registered with National Small Industrial Corporation (NSIC) or equivalent and having single point registration are exempt for payment of EMD to the extent of monetary limit stated in the registration certificate. The Bidder should submit the valid certified copy of NSIC or equivalent registration certificate/ renewal certification. Photocopy of application towards registration / renewal is not acceptable.</p>
6	Performance Bank Guarantee (PBG)	<p>10% of contract value valid for 2 years (only for successful bidder)</p> <p>The Successful bidder is required to submit PBG towards due performance of video walls. The PBG should be valid for 2 years from the date of installation.</p>
7	Time of Completion	Time Limit for completion of work by all means 03 months from the issuance of work order
8	Penalty	If the work is not completed within the aforesaid period , the Institute reserves the right to recover any loss sustained due to delayed delivery by way of penalty. Failure to supply the material within the stipulated period shall entitle Procuring Entity to the imposition of a penalty without assigning any reasons @ 0.5% of the total value of the item covered in order as a penalty per day subject to a maximum of 5% unless an extension is obtained in writing from the Institute on the valid ground before the expiry of the delivery period
9	Date and place for collection of Tender Document	Tender can be obtained from the website of the Entrepreneurship Development Institute of India (https://www.ediindia.org/the-institute/tenders/) from 15.12.2024 from 10.00 am onwards . The duly filled tender document may be submitted along with a Demand Draft of Rs.2,000/- in favour EDI of India . The Tender fee shall be non-refundable
10	Last date of receipt and place of submission of tender document by the bidder	The Tender with a complete set of the tender documents shall be enclosed in a sealed cover super scribed with name of work, Consultant Name and sent through Registered Post/Courier/Hand delivery only, on or before 17:00 hrs. on 06.01.2025 , Late tenders, delayed tenders and ordinary post tenders shall not be opened and considered.
11	Defect liability period	12 months from the date of virtual completion.
12	Query submission Date	Before 20 th December 2024
13	Pre-bid meeting	<p>For the benefit of prospective bidders, a pre-bid meeting has been convened. The interested Bidders shall submit their queries on the email to Administration Department email id: admin@ediindia.org before query Submission Date as mentioned in Control Sheet. Any queries submitted after the Query Submission Date may not be considered by the Bank.</p> <p>Meeting Date: Thursday, 02nd January 2025</p>

Notice Inviting Quotes

EDII invites sealed quotations from reputed service providers for the **Supply, installation, and commissioning of 100 KWP Solar Power Generation System (100 KWP DC Grid-Connected Rooftop Turnkey Solar-Photovoltaic Project)**. The **last date for submission of tender is**



06.01.2025 by 16.00 hours. Tenders received after the last date of submission will not be considered. The tender document should be addressed to:-

Sr. Manager (Estate),
Entrepreneurship Development Institute Of India;
(Via Ahmedabad Airport & Indira Bridge); P.O. Bhat 382 428
Dist. Gandhinagar Gujarat – India

Guidelines on Bid submission:

Bids should be submitted in two bidding system (Technical bid and Financial Bid) of the tender document comprises terms & conditions, scope of work, form of tender, form of agreement and bill of quantities, etc.)

1. Bids should be delivered in a single plain sealed envelope (containing the Technical & Financial Bid superscribing with the tender name), bearing the full name, postal address, telephone no., fax no., and e-mail address of the Tenderer. Additionally, it shall bear on top, the following:
 - i) Technical Bid: - should be super scribed with Tender No., the title of the tender i.e. **“Tender for “Supply, installation, and commissioning of 100 KWP Solar Power Generation System (100 KWP DC Grid-Connected Rooftop Turnkey Solar-Photovoltaic Project)”** and word **“TECHNICAL BID”** (prescribed hereinafter).

Documents to be submitted along with Technical Bid

- a. **Profile of Agency**
- b. **Work Experience**
- c. **Certificates like GST, Pancard, Cancelled cheque copy, etc.**
- d. **Vendor Registration form**
- e. **Annual Turn Over documents (minimum 3 years)**
- f. **Profit & Loss Statement (minimum 3 years)**
- g. **Annexure III in the letterhead of your Chartered Accountant**
- h. **Undertaking**
- i. **Proof showing financial stability of your agency**
- j. **Certificate mentioning that your company is not blacklisted by anyone**
- k. **Documents related to the Year of Establishment**

Kindly note loose papers are not accepted. The technical bids are to be kept in a single bundle. Hard-bound copies only shall be accepted.

- ii) Financial Bid: - should be super scribed with Tender No., the title of the tender i.e. **“Tender for “Supply, installation, and commissioning of 100 KWP Solar Power Generation System (100 KWP DC Grid-Connected Rooftop Turnkey Solar-Photovoltaic Project)”** and the word **“FINANCIAL BID”** containing the rate quoted by the party duly signed by an authorized representative. For more details go through Annexure-IV.
- iii) The Bid documents submitted must be without any overwriting, interlineations, corrections, double typing, etc. The Employer or its appointed committees may however,



at its discretion, consider any document with any overwriting or corrections if the same has been duly initialed and dated by the Authorized Representative of the Tenderer.

INTRODUCTION:

Solar Engineering Procurement and Construction (Solar EPC)

Following points may be considered and suitably incorporated in the Tender Document after consulting authorised/certified electrical engineer/personnel.

Solar photovoltaic system or **Solar power system** is one of **renewable energy system** which uses PV modules to convert sunlight into electricity. The electricity generated can be either stored or used directly, fed back into grid line or combined with one or more other electricity generators or more renewable energy source. Solar PV system is very reliable and clean source of electricity that can suit a wide range of applications such as residence, industry, agriculture, livestock, etc.

Major system components

Solar PV system includes different components that should be selected according to your system type, site location and applications. The major components for solar PV system are solar charge controller, inverter, battery bank, auxiliary energy sources and loads (appliances).

PV module converts sunlight into DC electricity.

Solar charge controller regulates the voltage and current coming from the PV panels going to battery and prevents battery overcharging and prolongs the battery life.

Inverter converts DC output of PV panels or wind turbine into a clean AC current for AC appliances or fed back into grid line.

Battery stores energy for supplying to electrical appliances when there is a demand.

Load is electrical appliances that connected to solar PV system such as lights, radio, TV, computer, refrigerator, etc.

Auxiliary energy sources - is diesel generator or other renewable energy sources.

Solar PV system sizing

1. Determine power consumption demands

The first step in designing a solar PV system is to find out the total power and energy consumption of all loads that need to be supplied by the solar PV system as follows:

1.1 Calculate total Watt-hours per day for each appliance used.

Add the Watt-hours needed for all appliances together to get the total Watt-hours per day which must be delivered to the appliances.

1.2 Calculate total Watt-hours per day needed from the PV modules.



Multiply the total appliances Watt-hours per day times 1.3 (the energy lost in the system) to get the total Watt-hours per day which must be provided by the panels.

2. Size the PV modules

Different size of PV modules will produce different amount of power. To find out the sizing of PV module, the total peak watt produced needs. The peak watt (Wp) produced depends on size of the PV module and climate of site location. We have to consider panel generation factor which is different in each site location. For Thailand, the panel generation factor is 3.43. To determine the sizing of PV modules, calculate as follows:

2.1 Calculate the total Watt-peak rating needed for PV modules

Divide the total Watt-hours per day needed from the PV modules (from item 1.2) by 3.43 to get the total Watt-peak rating needed for the PV panels needed to operate the appliances.

2.2 Calculate the number of PV panels for the system

Divide the answer obtained in item 2.1 by the rated output Watt-peak of the PV modules available to you. Increase any fractional part of result to the next highest full number and that will be the number of PV modules required.

Result of the calculation is the minimum number of PV panels. If more PV modules are installed, the system will perform better and battery life will be improved. If fewer PV modules are used, the system may not work at all during cloudy periods and battery life will be shortened.

3. Inverter sizing

An inverter is used in the system where AC power output is needed. The input rating of the inverter should never be lower than the total watt of appliances. The inverter must have the same nominal voltage as your battery.

For stand-alone systems, the inverter must be large enough to handle the total amount of Watts you will be using at one time. The inverter size should be 25-30% bigger than total Watts of appliances. In case of appliance type is motor or compressor then inverter size should be minimum 3 times the capacity of those appliances and must be added to the inverter capacity to handle surge current during starting.

For grid tie systems or grid connected systems, the input rating of the inverter should be same as PV array rating to allow for safe and efficient operation.

4. Battery sizing

The battery type recommended for using in solar PV system is deep cycle battery. Deep cycle battery is specifically designed for to be discharged to low energy level and rapid recharged or cycle charged and discharged day after day for years. The battery should be large enough to store sufficient energy to operate the appliances at night and cloudy days. To find out the size of battery, calculate as follows:



- 4.1 Calculate total Watt-hours per day used by appliances.
 - 4.2 Divide the total Watt-hours per day used by 0.85 for battery loss.
 - 4.3 Divide the answer obtained in item 4.2 by 0.6 for depth of discharge.
 - 4.4 Divide the answer obtained in item 4.3 by the nominal battery voltage.
 - 4.5 Multiply the answer obtained in item 4.4 with days of autonomy (the number of days that you need the system to operate when there is no power produced by PV panels) to get the required Ampere-hour capacity of deep-cycle battery.
- Battery Capacity (Ah) = $\frac{\text{Total Watt-hours per day used by appliances} \times \text{Days of autonomy}}{(0.85 \times 0.6 \times \text{nominal battery voltage})}$

5. Solar charge controller sizing

The solar charge controller is typically rated against Amperage and Voltage capacities. Select the solar charge controller to match the voltage of PV array and batteries and then identify which type of solar charge controller is right for your application. Make sure that solar charge controller has enough capacity to handle the current from PV array.

For the series charge controller type, the sizing of controller depends on the total PV input current which is delivered to the controller and also depends on PV panel configuration (series or parallel configuration).

According to standard practice, the sizing of solar charge controller is to take the short circuit current (Isc) of the PV array, and multiply it by 1.3

Solar charge controller rating = Total short circuit current of PV array x 1.3

Remark: For MPPT charge controller sizing will be different. (See Basics of MPPT Charge Controller)

Example: A house has the following electrical appliance usage:

- One 18 Watt fluorescent lamp with electronic ballast used 4 hours per day.
- One 60 Watt fan used for 2 hours per day.
- One 75 Watt refrigerator that runs 24 hours per day with compressor run 12 hours and off 12 hours.

The system will be powered by 12 Vdc, 110 Wp PV module.

1. Determine power consumption demands

Total appliance use = (18 W x 4 hours) + (60 W x 2 hours) + (75 W x 24 x 0.5 hours)
= 1,092 Wh/day

Total PV panels energy needed = 1,092 x 1.3
= 1,419.6 Wh/day.

2. Size the PV panel

2.1 Total Wp of PV panel capacity needed = 1,419.6 / 3.4
= 413.9 Wp

2.2 Number of PV panels needed = 413.9 / 110
= 3.76 modules



Actual requirement = 4 modules

So this system should be powered by at least 4 modules of 110 Wp PV module.

3. Inverter sizing

Total Watt of all appliances = 18 + 60 + 75 = 153 W

For safety, the inverter should be considered 25-30% bigger size.

The inverter size should be about 190 W or greater.

4. Battery sizing

Total appliances use = (18 W x 4 hours) + (60 W x 2 hours) + (75 W x 12 hours)

Nominal battery voltage = 12 V

Days of autonomy = 3 days

Battery capacity = $\frac{[(18 \text{ W} \times 4 \text{ hours}) + (60 \text{ W} \times 2 \text{ hours}) + (75 \text{ W} \times 12 \text{ hours})]}{(0.85 \times 0.6 \times 12)} \times 3$

Total Ampere-hours required 535.29 Ah

So the battery should be rated 12 V 600 Ah for 3 day autonomy.

5. Solar charge controller sizing

PV module specification

$P_m = 110 \text{ Wp}$

$V_m = 16.7 \text{ Vdc}$

$I_m = 6.6 \text{ A}$

$V_{oc} = 20.7 \text{ A}$

$I_{sc} = 7.5 \text{ A}$

Solar charge controller rating = (4 strings x 7.5 A) x 1.3 = 39 A

So the solar charge controller should be rated 40 A at 12 V or greater.

SCOPE OF WORK:

Design, engineering, testing at manufacturers works, inspection, procurement, supply, transportation to Site, unloading at site, handling, storage, associated civil works, services, permits (material related), insurance at all stages, construction, erection, installation, testing (pre-grid and post grid), completion, commissioning, performance testing, trial run, training of EDI personnel and final completion of Solar Power generation station. The Solar power station shall have a generating total capacity of 100 KWp (the "Project"). This will be treated as maximum DC side installed capacity of modules. The generated power shall be at 415 V AC 50 Hz voltage level in three (3) phase. The bidder shall provide comprehensive operation & maintenance of the plant for a period of Five(5) years from the date of successful completion of trial run.

Solar PV System Specification	:	On-Grid Rooftop
Plant Capacity	:	100 KW DC
Module Technology	:	Half Cut Topcon
Mounting Structure Technology	:	RCC Fix Tilt
Project Scheme	:	Turnkey Rooftop EPC
Solar PV Modules	:	$P_{mx} \geq 580 \text{ Wp}$, Half Cut TOPCON
Module Mounting Structures- Flush Mount	:	Aluminum
Inverter	:	Outdoor Type Inverter, Min 98% Efficiency



DC Solar Cables	:	Solar Grade (better than FRLS), Halogen free, UV & Weather Resistant
AC LT Cables	:	Aluminum Core, XLPE Insulated, Inner PVC Sheathed, Galvanized Steel Strip Armored Cables
Earthing System	:	Chemical, Maintenance Free Type
Lighting Arrestor	:	As per Industry Standards
MCB/MCCB's	:	Over-current and earth fault protection
Remote monitoring system	:	Web-based remote monitoring system with data logger
MCB/MCCB	:	L&T, ABB, Schneider, or equivalent
AC Cables	:	Polycab, RR Cable
DC Solar cables	:	Polycab, RR Cable

- All the make should be as per the DSCOM guidelines
- All the clearance approval is to be done by your end.
- Warranties of Solar modules, inverters, module mounting structures, and other BOS are to be mentioned.
- The AMC charges for a minimum of 3 years to a maximum of 5 years need to be mentioned.

PLANT EQUIPMENT AND ASSOCIATED WORKS - The equipment and materials for total capacity 100 KWp (peak) Grid Interactive Solar PV Power Plant with associated system (Typical) shall include but not be limited to the Supply, Erection, and Testing & Commissioning of the following:

CIVIL WORKS

- Cleaning of Roof.
- Requisite foundation and structures wherever required.
- Requisite cable routings(s) through cable contours/ UV resistance HDPE Pipes wherever required.
- Civil & Electrical work for mounting the inverter etc
- Fabrication, supply & erection of cable holders, support, brackets and accessories.
- Galvanized steel, rigid/ UV resistance flexible conduits and accessories, cable pipes, lugs, glands, terminal blocks, galvanized sheet steel junction boxes, cable fixing clamps, nuts and bolts etc. as required.
- Supply of necessary materials for field grounding system etc.
- Suitable drainage arrangements wherever necessary.
- Any other items not specifically mentioned in the specification but which are required for erection, testing and commissioning and satisfactory operation of the solar power plant are deemed to be included in the scope of the specification unless specifically excluded.

SOLAR PV PLANT

The system shall consist of (but not be limited to) the following equipment:

- Suitable Nos. of Crystalline silicon Solar PV Modules. The minimum size of each Module shall not be less than 250 Wp.
- Solar Panel Mounting Structures
- DC Combiner Box /Array Junction boxes / DCDB



- d. String Inverter/Power Conditioning Unit (Inverter) with automatic synchronizing between solar Power and Incoming Grid with priority on Solar Power.
- e. TUV certified Dc Cables, AC cable accessories and cable support system
- f. Earthing system with necessary earthing conductors for primary and secondary connections.
- g. Lightening Arrestors
- h. Inspection / Incidental Services
- i. Pre & Post Commissioning Test
- j. Trial Run Test & Performance Guarantee (PG) test
- k. Comprehensive O&M for Five years

ELECTRICAL WORKS

- a. AC Distribution Board Protective Relays & Control Panel (if needed)
- b. AC & DC Power Cables with accessories
- c. Earthing System
- d. Metering System
- e. Circuit Breakers
- f. Lighting /Surge Arrestor

Grid interactive system including all equipment required for the same such as but not limited to breakers, isolators, lightning arrestor, panels, protection equipment, cables, proper earthing as per statutory requirements and comply to CERC/GERC Grid code which is recently issued.

Metering of outgoing energy.

Fire protection and fire-fighting equipment of proper type. On roof top as well as near the inverter.

Any other material and services (whether specifically mentioned in the document or not) require to full fill the stated scope of work shall be deemed to be included in the scope of the work on turnkey basis.

ENGINEERING DATA & DRAWINGS

Engineering drawing, data etc. of Solar Power Plant and its associated electrical & mechanical auxiliary systems includes preparation of single line diagrams and installation drawings electrically outs, erection key diagrams, electrical and physical clearance diagrams, design calculations for structure load to be provided under this contract, are covered under Bidders scope of work shall be prepared by the contractor and got approved from the owner before start of the job and the same should be submitted to owner in three copies.

Successful bidder shall furnish operation and maintenance manual in two (02) sets prior to start of O&M period.

TRAINING OF EMPLOYERS PERSONNEL

The bidder shall provide training to at least six personnel of EDII for a minimum period of one week at site for erection, testing, commissioning and O&M.

TERMINAL POINTS & EXCLUSIONS



The terminal point under the scope of this assignment shall be line isolator of 415V Three phase Four wire 50 Hz feeder near to SPV Plant.

All materials & services (whether specifically mentioned in this document or not) required to full fill the stated scope of work shall be deemed to be included in the scope of the bidder.

OTHER SCOPE

Testing, maintenance and condition monitoring of equipments.

Mandatory spares & supply for Five (5) years

Any other equipment / material required to complete the Solar Power Plants.

Receipt, unloading, storage, erection, testing and commissioning of all supplied material.

Materials and accessories, which are necessary or usual for satisfactory and trouble free operation and maintenance of the above equipments

OTHER TERMS

Availability for every day inspection by EDI as per requirement may be ensured.

Bidder will install Suitable Communication System (mobile phone) to his authorised single point contact person.

The Bidder shall arrange deployment of manpower and required consumable during commissioning.

All equipment & item which are not specifically mentioned but are required for completion of work including commissioning, operation & maintenance of Solar Photovoltaic Power Plant, in every respect and for safe and efficient operation and guaranteed performance.

Submission of following documents drawings data design and engineering information to EDI or its authorized representative for review and approval

- (i) Detailed technical specification of all the equipments.
- (ii) Design criteria.
- (iii) Design calculations with details on structural load.
- (iv) General arrangement an assembly drawings.
- (v) Schematic diagram for entire electric system
- (vii) Quality assurance plans.

All drawings shall be fully corrected to agree with the actual "as built" site conditions and submitted to EDI (both in soft and hard copy) after commissioning of the project for record purpose.

Preparation and supply of detailed Operation, System and Maintenance manual of Power Plant.



Adequate insurance coverage of manpower during EPC period up to commissioning. Including all the worker's accidental insurance must be obtained by the bidder.

The bidding company shall be responsible for all the required activities for the successful running, optimum energy generation & maintenance of the Solar Photovoltaic Power Plant for Five years covering:

- i) Deputation of Engineering and supporting personnel.
- ii) Successful running of Solar Power Plant for optimum energy generation for first three months
- iii) Monitoring controlling, troubleshooting maintaining of records, registers.
- iv) Supply of all spares, consumables and fixing / application.
- v) Supply & use of consumables such as grease oil etc. throughout the maintenance period as per recommendations of the equipment manufacturers.
- vi) Conducting periodical checking, testing over hauling and preventive action.
- vii) General up keeping of all equipment, However, Periodic cleaning of Solar PV Panels shall be done by EDI.

Submission of periodical reports to EDI on the energy generation & operating conditions of the solar farm.

Continuous monitoring the performance of the Solar Power Plant and regular maintenance of the whole system including Modules, inverters, cables are necessary for extracting and maintaining the maximum energy output from the Solar Power Plant.

Any replacement required, for inverters, cables, junction boxes or any other component during the entire course of Five years free of cost replacement.

Grid Tied Inverter:

Grid Tied Inverter consists of an electronic Inverter along with associated control, protection and data logging devices. The system shall incorporate a uni-directional inverter and should be designed to supply the AC power to the grid. The power conditioning unit shall adjust the voltage & frequency levels to suit the Grid. All three phases shall be supervised with respect to rise/fall in programmable threshold values of frequency. GRID TIED INVERTER shall conform to the required IEC standards. Bidders are free to select Central / String Outdoor type inverters, based on their system design. The inverters will be mounted near the modules or on the roof. The AC wire will have to be taken to the ground floor of the building to mount the electrical panel.

GENERAL REQUIREMENTS

- Each Inverter shall be compliant with IEEE Standard 929-200 or equivalent.
 - The efficiency of the inverter shall be equal to or more than 95% at 75% load as per IEC 61683. The bidder shall specify the conversion efficiency at different load say 25%, 50%, 75% and 100% in his offer.
 - The GRID TIED INVERTER shall have internal protection arrangement against any sustained fault in the feeder line and against lightning in the feeder line
 - The GRID TIED INVERTER shall have the required protection arrangements against earth
- leakage faults.



- Specifically, the GRID TIED INVERTER should be three phase power conditioning unit using static solid state components. DC lines shall have suitably rated isolators to allow safe start up and shut down of the system.
- The GRID TIED INVERTER shall have provision for galvanic isolation. Each solid state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the inverter.
- The GRID TIED INVERTER shall have anti islanding protection.
- The GRID TIED INVERTER must have the feature to work in tandem with other similar GRID TIED INVERTER's and be able to be successively switched "ON" and "OFF" automatically based on solar radiation variations during the day. Bridging shall be carried out amongst a pair.
- The GRID TIED INVERTER front panel shall be provided with a display (LCD or equivalent) of all important parameter such as DC input voltage, DC input current, AC input voltage, AC input current, AC output power, frequency etc.
- Nuts & bolts and the GRID TIED INVERTER enclosure shall have to be adequately protected taking into consideration the atmosphere and weather prevailing in the area.
- Dimension and weight of the GRID TIED INVERTER shall be indicated by the bidder in the offer.
- Power consumption by GRID TIED INVERTER during operation & standby condition should be mention by bidder in the offer.
- The GRID TIED INVERTER shall include appropriate self protective and self diagnostic feature to protect itself and the PV array from damage in the event of GRID TIED INVERTER component failure or from parameters beyond the GRID TIED INVERTER's safe operating range due to internal or external causes. The self-protective features shall not allow signals from the GRID TIED INVERTER front panel to cause the GRID TIED INVERTER to be operated in a manner that may be unsafe or damaging. Faults due to malfunctioning within the GRID TIED INVERTER, including commutation failure, shall be cleared by the GRID TIED INVERTER protective devices.
- It should have Local LCD (Liquid crystal display) and keypad for system control, monitoring instantaneous system data, event logs and data logs and changing set points. Control and read-out should be provided on an indicating panel integral to the Inverter. Display should be simple and self explanatory display to show all the relevant parameter relating to GRID TIED INVERTER operational data and fault condition in form of front Panel meters / LED's or two line LCD Display.

MAXIMUM POWER POINT TRACKING:

Maximum power point tracker shall be integrated in the inverter to maximize energy drawn from the Solar PV array. The MPPT should be microprocessor based to minimize power losses. The details of working mechanism of MPPT shall be mentioned by the bidder in his offer. The MPPT must have provision for constant voltage operation. The MPPT unit shall confirm to IEC 62093 for design qualification. This shall be demonstrated during testing / inspection and incorporated in the test report.

The Inverter must have following features:

- a. Inverter must be from a reputed company
- b. IP 65



- c. Dual MPPT preferable.
- d. Inverter must have SEC(Solar Energy Center ,India) certification
- e. No load loss < 1% of rated power and maximum loss in sleep mode shall be less than 0.05%
- f. Overload capacity for 10 sec of 150% of continuous rating
- g. Sinusoidal current modulation with excellent dynamic response.
- h. Optional VAR control.
- i. Unit wise & integrated Data logging.
- j. Output of the inverter must be 415 V, 50 Hz Three Phase Four wire
- k. Frequency Range 47.3 to 52.7
- l. Inverter Efficiency at least 95%
- m. Power factor shall be 0.95 lagging at 25% rated output.
- n. The high voltage and power circuit of GRID TIED INVERTER shall be separated from low voltage and power circuit. All internal wiring will be copper conductor with flame resistant insulation.
- o. Protection against
 - Over-under current
 - Over voltage & under voltage,
 - Over and under frequency
 - Sync loss
 - Over temp.
 - Line to line fault
 - DC bus over voltage
 - Cooling Fan failure (If provided)
 - Short circuit
 - Protection against lightning
 - Protection against earth fault.
 - Surge voltage induced at output due to external source.
- a. Set point pre-selection for VAR control
- b. integrated protection in the DC and three phase system
- c. Insulation monitoring of the PV array
- e. Ground fault detector – which is essential for large PV generators in view of appreciable discharge current with respect to ground.
- f. Over voltage protection against atmospheric lightning discharge to the PV array is required.
- g. The power conditioner must be entirely self-managing and stable in operation. A self-diagnostic system check should occur on start up. Functions should include a test of key parameters on start up.
- h. The inverter capacity must be match with KW of solar plant.
- i. The inverter must have a free replacement warranty for Five years from date of operation and must have a spare part availability guarantee for next 10 years.
- j. Required number of spares must be provided.
- k. Bidder Must Produce Following Certificates along with tender.**
 1. **IEC 61683 for Efficiency Measurement**
 2. **IEC 60068 2 (6,21,27,30,75,78) for Environmental Testing**
 3. **Test Report From SEC (Solar Energy center, MNRE)**
 4. **Certificate Confirms Anti –islanding Protection: VD E 0126-1-**



1/IEC 60255.5-

5. **For Safety: IEC 62103, EN50178, IEC62109-1, IEC 62109-2**
6. **Confirms EMC: IEC/EN 61000-6-2 and IEC/EN 61000-6-3**

EARTHING

Earthing system shall be in accordance with IS: 3043 and IEEE 80, Indian Electricity Rules, Codes of practice and regulations existing in the location where the system is being installed. The earthing system shall be designed with consideration of the earth resistivity of the project area. The earth resistivity values shall be measured prior to designing the earthing system.

Each array structure of the PV plant, LT power system, all electrical equipment and GRID TIED INVERTER. All junction boxes, ACDB & DCDB etc. shall be grounded properly as per IS 3043 - 1987. All metal casing / shielding of the plant shall be thoroughly grounded in accordance with Indian electricity act / IE Rules. The entire earthing system should be made with G.I flat of adequate cross-section as per design. Minimum 3 meter long, 40 mm diameter perforated GI pipe / chemical earthing electrodes including accessories shall be provided along with brick masonry enclosure with cast iron cover plate with pad-locking arrangement, water pipe arrangement for periodical watering of the earthing electrode stations.

The applicant should submit the earthing system design calculations along with the system layout for EDI approval. Prior to the installation of the system.

LIGHTNING AND OVERVOLTAGE PROTECTION

The design of the lightning protection scheme shall be in accordance with IS:2309 – 1989 (Reaffirmed – 2005), Edition 3.1 (2006-01)

The sizing of the main conductor, down-comers and the test links, etc shall be as per the IS standard.

POWER & CONTROL CABLES

CABLE SPECIFICATIONS

- Irrespective of utilization voltage and current rating all type of power cables shall be minimum of 1100 volts grade PVC insulated conforming to IS 1554 / IS 694 for working voltage less than 150 V control cable shall be of minimum 500 V grade, the control and power cable has to be laid separately. All LT XLPE cables shall confirm to IS: 7098 Part I & II.
- Only terminal cable joints shall be accepted. No cable joint to join two cable ends shall be accepted. All cable/wires shall be marked with good quality letter and number ferrules of proper sizes so that the cables can be identified easily.
- The cables shall be adequately insulated for the voltage required and shall be suitably colour coded for the required service. Bending radii for cables shall be as per manufacturer's recommendations and IS: 1255. Cables shall also confirm to IEC 60189 for test and measuring methods.
- All HT XLPE Cables Shall confirm IS: 7098 PART-3 & IEC -60287, IEC-60332.
- All wires used on the LT side shall conform to IS and should be of appropriate voltage



grade. Only copper conductor wires of reputed make shall be used.

- All cables shall be supplied in the single largest length to restricting the straight-
- through joints to the minimum number.
- The size of each type of cable selected shall be based on minimum voltage drop; however the maximum drop shall be limited to 2%. Due consideration shall be made for the de-rating of the cables with respect to the laying pattern, while sizing the cables.
- Data sheets of individual cable sizes shall be submitted for approval by EDI. Drum numbers and drum length details shall be submitted with each consignment.
- The size of the cables between array interconnections, array to junction boxes, junction boxes to PCU etc shall be so selected to keep the voltage drop and losses to the minimum.
- Cable should be laid in RIGID UV PROTECTED PVC pipes in open areas.
- All DC/LT cables must be made from bright annealed 99.97% pure tinned copper class conductors class 5.
- Insulation must be halogen-free compound, cross linked
- **Bidder Must Produce Following Certificates along with tender:**
 1. DKE/VDE AK 411.2.3 for DC wires
 2. Flame resistance VDE 0482-3321-2/IEC 60332-1-2 for DC wires
 3. Cooper Standard IEC 60288 cl.5 for DC wires
 4. Low Temp resistance EN 60811-1-4/EN 50305 for DC cables
 5. Insulation resistance EN 50395 For DC cables
 6. TUV 2 PFG 1169/08.07 must for DC cables
 7. IEC 60189, IS 694 /IS 1554 ,IS/IEC 69947 For ALL cables

CABLE ENDS

Cable end terminations and joint kits shall comply with the latest version of the relevant IS standard.

The cable ends shall be terminated with adequate size copper lugs and sockets etc, single/double compression cable glands. Cable glands shall be of robust construction capable of clamping cable and cable armour (for armoured cables) firmly without injury to insulation. The metallic glands shall be earthed at two locations. Suitable lock type crimping lugs shall be used for cable end terminations. Where cables are raising from ground, suitable PVC pipe guarding shall be provided for cable raising with sealing of the guarding PVC pipe including a suitable clamp.

EARTHING

Earthing system shall be in accordance with IS: 3043 and IEEE 80, Indian Electricity Rules, Codes of practice and regulations existing in the location where the system is being installed. The earthing system shall be designed with consideration of the earth resistivity of the project area. The earth resistivity values shall be measured prior to designing the earthing system.

METERING SYSTEM

One (1) no. Class 1 accuracy Energy Meter shall be provided outgoing feeder



Meter shall be suitable for interfacing for synchronizing the built-in clock of the meter.

TRIAL RUN

SPV Plant site shall be deemed to be successfully erected & commissioned after submission of relevant commissioning certificate from Electrical Engineer , consultant of EDI. During the trial operation, SPV plant shall perform trouble-free operation for cumulative 72 hours during which functionality of all plant components shall be demonstrated and the system shall be in Generating mode.

WARRANTY

The successful bidder shall provide a warranty covering mechanical structure, electrical works including GRID TIED INVERTER / inverters / maximum power point tracker unit / distribution boards / digital meters / switch gear and overall workmanship of the solar power plants / system against any manufacturing / design / installation defects for a period of Five(05) years.

The warranty period shall commence from the date of successful completion of trial run.

INSURANCE:

The insurance of the project till commissioning of the project is in bidder's scope.

TAKING OVER:

Upon successful completion of all the facilities pertaining to the scope of work contractor shall approach EDI in writing for "final take over" of the plant. On receipt of such request, EDI shall issue to the contractor a taking over certificate as a proof of the final acceptance of the system. Such certificate shall not relieve the Contractor of any of his obligations which otherwise survive, by the terms and conditions of the Contract after issuance of such certificate.

SPECIFICATION FOR O & M CONTRACT:

- a. The successful bidder shall provide comprehensive Operation and maintenance of SPV Plant along with grid connecting system for a period of Five (5) years form date of completion of trial run. After O&M period, EDI may at its discretion decide to extend the existing O&M contract on mutually acceptable terms & conditions or undertake the O&M of the SPV Plant on its own.
- b. The bidder shall be responsible for supply of all spare parts, repairs / replacement of any defective equipment(s) at his own cost as required from time to time during the O&M period.
- c. The bidder shall be responsible for all the required activities for the successful running, optimum energy generation etc.
- d. Deputation of engineering and supporting personnel
- e. Ensure, successful running of SPV Plant for optimum energy generation.
- f. Monitoring, controlling, troubleshooting, maintaining of records, registers.
- g. Supply of all spares, consumables and fixing / application of the same.
2. Normal and preventive maintenance of the plant such as cleaning of module surface, tightening of all electrical connections



3. Conducting periodical checking, testing, over hauling and preventive action.
4. Submission of periodical reports to the owner on the energy generation & operating conditions of the SPV plant.
5. The operator shall record monthly energy output of each array and transformer and reports shall be prepared on performance of SPV plant.
6. The contractor shall at his own expense provide all amenities to his workmen as per applicable laws and rules.
7. The Contractor shall ensure that all safety measures are taken at the site to avoid accidents to his employees or his Co-contractor's employees
8. The Contractor shall immediately report the accidents, if any, to the Engineer In charge & to all the concerned authorities as per prevailing laws of the state.
9. The Contractor shall comply with the provision of all relevant Acts of Central or State Governments including payment of Wages Act 1936, Minimum Wages Act 1948, Employer's Liability Act 1938, Workmen's Compensation Act 1923, Industrial Dispute Act 1947, Maturity Benefit Act 1961, Employees State Insurance Act 1948, Contract Labor (Regulations & Abolishment) Act 1970 or any modification thereof or any other law relating thereto and rules made there under from time to time.
10. In order to ensure longevity, safety of the core equipment and optimum performance of the system the contractor should use only genuine spares of high quality standards.

Responsibility of the Bidder

- a) Information, material, etc. borrowed by the Bidders, if any, shall remain the property of EDII and may be provided by the EDII for information, solely for the execution of this Contract. All such borrowed material shall be the sole property of the EDII and shall be returned to EDII after submission of the bids.
- b) To execute the work with the best of industry practices within the given time and approved budget.
- c) For any imported item(s), the vendor should have an authorization certificate from the Manufacturing Company and should enclose a copy of the same with the Technical bid.
- d) Details of after-sale warranty/ guarantee/ AMC charges (for minimum 3 to maximum 5 years) etc. shall be provided unambiguously
- e) The name of the manufacturer must be clearly specified while indicating the make of the product.
- f) Please quote your rates exactly as per our inquiry only.
- g) The supplier/dealer / service provider is responsible for the installation & commissioning of solar Equipments on the campus
- h) Rates quoted should include delivery at the Institute's campus, i.e., delivery, installation & commissioning up to the Institute at the desired location as per the decision of the Competent Authority shall be included in the quoted price only.
- i) Technical details/ literature/ operation manual, etc., must be provided with a technical bid.
- j) List of essential spare parts along with the rates must be enclosed wherever necessary.
- k) The quotations must be submitted along with the copies of the Certificate of Authorized Dealership.
- l) All damaged or unapproved solar equipment shall be returned at the risk and cost of the authorized dealers/suppliers, and incidental expenditure thereupon shall be borne by the concerned party.
- m) The warranty period, wherever applicable, should be clearly specified per the company / manufacturer's rules / norms. Under no circumstances it shall be less than 12 months



Solar Power Plant Contractor's responsibilities include:

- **Project management:** Oversee all aspects of the project, including design, construction, commissioning, and maintenance
- **Quality control:** Ensure quality construction and inspect the work performed
- **Safety:** Ensure the safety of personnel on the construction site
- **Procurement:** Procure the necessary materials and equipment
- **Subcontractors:** Search for and select subcontractors, and sign contracts with them
- **Cost:** Calculate and report on project costs
- **Compliance:** Ensure compliance with all quality construction and safety standards
- **Testing:** Test and commission the facility
- **Maintenance:** Perform preventive maintenance on all electrical installations
- **Communication:** Work with engineers and project managers to meet customer needs

A solar power plant contractor may also be responsible for:

- Developing a rooftop plan
- Assessing the potential solar resource
- Identifying environmental factors that may affect the project
- Studying environmental, social, and political aspects
- Creating a list of required permits and licenses
- Assessing the cost of connecting the solar plant to the grid
- Analysing financing sources
- Developing the concept of the project's feasibility and outcome structure

Key Stages and Tests during Project Implementation and Supervision:-

- I. Inspection of the Foundation site and access/inspection.
- II. Monitoring/delivery of solar PV modules, transformers, and inverters.
- III. Checking the correct installation of equipment.
- IV. Checking the cable routing.
- V. Acceptance testing at the site.
- VI. Monitoring and troubleshooting.
- VII. Quality audits are required to be carried out

Payment Terms: The payment shall be made in the following manner:

- 50% against Delivery of Equipments
- 30% on Installation & Commissioning of Equipments
- 15% after completion of 3 months of commissioning
- 5% retention amount will be released on completion of defect liability period of one year from the date of installation.



General Terms & Conditions:

- The Bidders are advised to study this tender document carefully before submitting their Bids. Submission of a Bid in response to this tender shall be deemed to have been done after careful study and examination of this document with full understanding of its terms, conditions, and implications.
- The Bidders are encouraged to submit their respective Bids after visiting the site where the work is proposed to be carried out. The Bidders may, at their own expense, visit the site and ascertain for themselves the site conditions, location, surroundings, climate, availability of power and other utilities for carrying out the said work, access to the site, handling and storage of materials, applicable laws and regulations, and any other matter considered relevant by them and also carefully examine the Tender Documents, Terms and Conditions, Technical Specification and Bill of Quantities, and if there should be or appear to be any ambiguity in or discrepancy between any of these documents, he should immediately refer the matter to the Bank for clarification.
- Time is the essence of the contract and work must be completed within the time schedule as indicated in the control sheet of Tender.
- The Bidders shall ascertain the location, size and condition of the areas available for his use as working areas, time and all other information affecting this Tender.
- The Tenderer shall complete the annexed Form of Tender, Schedules and Bill of Quantities with the whole of the prices and information called for therein, and shall sign with date each and every page of the documents viz., technical and price bid on bottom right hand corner.
- The rates shall be filled both in figures and in words. In case there is any discrepancy in the rate indicated in figures or words, the rate indicated in words shall be taken into consideration.
- The Tender Form and the documents attached to it shall not be detached one from the other, and no alteration or mutilation (other than filling in all the blank spaces) shall be made in any of the documents attached hereto. Any alterations or erasures to the entries in the attached documents shall be made by a separate covering letter or corrections should be signed by the authorized signatory, otherwise it shall not be entertained.
- The Tenderers are advised to quote strictly as per the approved makes/models mentioned in the price-bid failing which the tender shall be considered as invalid tender.

Responsibility of the Bidder

- Information, material, etc. borrowed by the Bidders, if any, shall remain the property of EDII and may be provided by the EDII for information, solely for the execution of this Contract. All such borrowed material shall be the sole property of the EDII and shall be returned to EDII after submission of the bids.



- To execute the work with the best of industry practices within the given time and approved budget.
- For any imported item(s), the vendor should have an authorization certificate from the Manufacturing Company and should enclose a copy of the same with the Technical bid.
- Details of after-sale warranty/ guarantee/ AMC charges (for minimum 2 to maximum 5 years) etc. shall be provided unambiguously
- The name of the manufacturer must be clearly specified while indicating the make of the product.
- Please quote your rates exactly as per our inquiry only.
- The supplier/dealer / service provider is responsible for the installation & commissioning of solar Equipments on the campus
- Rates quoted should include delivery at the Institute's campus, i.e., delivery, installation & commissioning up to the Institute at the desired location as per the decision of the Competent Authority shall be included in the quoted price only.
- Technical details/ literature/ operation manual, etc., must be provided with a technical bid.
- List of essential spare parts along with the rates must be enclosed wherever necessary.
- The quotations must be submitted along with the copies of the Certificate of Authorized Dealership.
- All damaged or unapproved solar equipment shall be returned at the risk and cost of the authorized dealers/suppliers, and incidental expenditure thereupon shall be borne by the concerned party.
- The warranty period, wherever applicable, should be clearly specified per the company / manufacturer's rules / norms. Under no circumstances it shall be less than 12 months
- The Successful Bidders/Contractor shall provide to the EDII at all times during the Contract including Maintenance Period a competent Staff and/or all such other men as he may require to assist him in recording or checking any measurements, levels, setting out or measuring up of work. The Contractor is also to provide required tools & tackles for executing the work.

Relationship with Employee:

Every bidder should, at the time of submission of bid, give a declaration as under:-

"If in any Bidder Company/firm, the interest (i.e. shareholding in company and share in partnership firm) of any employee of the tendering company or his/her relative as defined in section 2(77) of the Company's Act 2013 is 10 percentage or more, the tendering company will not deal with such company/firm at all. Tenderer therefore, must specifically disclose this fact in his technical bid. Non-disclosure of such facts would immediately disqualify the tenderer for further dealing with the tendering company."

Termination of Contract:

In case, the bidder fails to deliver the services thereof within contractual period, the Institute shall exercise its discretionary power either:-

- a) To recover, from the supplier as agreed, by way of penalty clause above or
- b) To avail the service elsewhere after giving due notice to the successful bidder on account and at the risk of the unsuccessful bidder without cancelling the contract or
- c) To cancel the contract.



- d) Reserves the right to terminate the contract if the services are not found satisfactory by giving 15 days notice, and if the Agency wants to terminate the contract, they will be required to give 15 days' notice in writing, giving reasons thereof

In the event of the risk purchase of services of similar description, the opinion of the Institute shall be final. In the event of action taken under clause (a) or (b), the successful bidder shall liable to pay for any loss which the Institute may sustain on that account but the successful bidder shall not be entitled to any saving on such services made against default. Further, the Institute reserves the right to terminate the contract (i.e. work order/agreement/purchase order) at any time, without assigning any reasons, whatsoever, by giving a notice period of ONE month from the date of termination of the contract. The Institute will not be responsible for any compensations/ damages/ losses, whatsoever, on account of such termination of contract."

Proposal Ownership

The bid and all supporting documentation submitted by the bidders shall become EDII property and it reserves the right to accept or reject any request made by any bidder to return or destroy the bid and accompanying documentation.

Indemnity

The selected Bidder shall indemnify, protect, and save EDII and its personnel against all claims, losses, costs, damages, expenses, action suits, and other proceedings.

Confidentiality of tender submissions:

The Contractor shall strictly treat and maintain the Employer's Confidential Information as "Confidential Information".

Force Majeure

"Force Majeure" means an event beyond the control of the select Bidder not involving the vendor's fault or negligence and not foreseeable. Such events may include but are not limited to, Acts of God or public enemy, acts of the Government of India in their sovereign capacity, acts of war, fire, floods, strikes, lock-outs, and freight embargoes.

If a Force Majeure situation arises, the select Bidder shall promptly notify EDII in writing of such conditions and the cause thereof within 30 calendar days. In such a case, the time for performance shall be extended by a period not less than the duration of such delay. If the duration of delay continues beyond a period of three months, EDII and the select Bidder shall hold consultations with each other in an endeavor to find a solution to the problem.

GST Compliance:

The Vendor* hereby undertakes to comply with all the applicable GST Rules and regulations, more specifically but not limited to the GST Compliance as stated below. The vendor also hereby agrees that any loss on account of GST including loss of input tax credit (ITC) and interest and/or penalty thereon if any, arising on the EDII due to noncompliance of the GST laws and rules/regulations thereto by the Vendor, the same shall be borne by the Vendor



itself. Under such circumstances the EDII shall have the right to recover the said amount of such loss from the next bill payment or any future payment due to vendor. The vendor hereby authorizes bank to recover such amount of loss from its account maintained with EDII and/or from any payment due from EDII .

*The term Vendor includes supplier/Service Providers/Land Lord etc. and may be suitably modified as per the respective agreement.

- The vendor hereby undertakes timely and proper filing of GSTR1 and GSTR3B returns as per GST rules and regulations covering the invoices raised on EDII may avail input tax credits (ITC) based on matching of corresponding vendor invoice with GSTR 2B.
- The Vendor also agrees that where Vendor GSTIN is suspended/cancelled by the GST authority due to which ITC loss has been suffered by the EDII, the vendor shall be liable to reimburse such loss incurred.
- The Vendor hereby agrees that all payments due to the Vendor by EDII shall be linked to proper discharge of tax liability by the Vendor within statutory time periods. In case of any disputes due to non-matching of GST credit, the same shall be resolved by the Vendor within 90 (ninety) days of the invoice date, failing which EDII Bank/the Bank shall have the right to recover the GST paid from the vendor.
- The vendor hereby also agrees that if the Vendor falls under the applicability of E-invoice provisions, the invoice shared to EDII should mandatorily be an E-invoice. If Vendor is below the limits of E-invoice applicability, the Vendor should provide a declaration for the same and also bears the responsibility to inform EDII Bank as and when E-invoice provisions become applicable to them. Any loss of ITC to EDII on account of non-compliance of E-invoice provisions should be borne by the Vendor.
- The Vendor to provide invoice/ Debit Note/ Credit Note in accordance with time of supply provisions to enable EDII avail ITC in a timely manner on or before stipulated time period. All necessary adjustment entries (credit notes, debit notes) shall be made before October 31, of the succeeding financial year.
- Wherever applicable EDII has the right to deduct 'tax deducted at source' at the rate prescribed under the Applicable Law and remit the same to the relevant tax authorities.
- Where the supply of goods/services are liable to GST under reverse charge mechanism, then the Vendor should clearly mention the category under which it has been registered and also shall mention that "the liability of payment of GST is on the Recipient of Service".
- Any GST liability arising on the Vendor on account of contravention of the provisions of the GST regulations, would be borne by the Vendor itself and EDII shall not be liable to compensate the same.

Dispute Resolution

The Parties shall use their best efforts to amicably settle all disputes arising out of or in connection with the tender documents in the following manner:

- The Party raising a dispute shall address to the other Party a notice requesting an amicable settlement of the dispute within 15 days of receipt of the notice.
- The matter will be referred for negotiation between the Director General or any Competent Authority of the Institute and the Bidder. The matter shall then be resolved by them.



- The Parties agree that any dispute between the parties, which cannot be settled by negotiation in the manner, described above, may be resolved by arbitration and such dispute may be submitted by either party to arbitration within 15 days of the failure of negotiations. Arbitration shall be held in Gandhinagar, Gujarat State, India by sole Arbitrator appointed mutually by the parties and shall be conducted in accordance with the provision of Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof. The arbitration proceedings shall be conducted in the English language. The arbitration award shall be final, conclusive and binding upon the Parties. Each Party shall bear the cost of preparing and presenting its case, and the cost of arbitration, including fees and expenses of the arbitrators, shall be shared equally by the Parties unless the award otherwise provides.

General Conditions:

1. From the time the bids are opened and the contract is awarded, the bidders should not contact the employer on any matter related to its technical and/or financial Bid.
2. Any effort by the bidder to influence the employer in the examination, evaluation, ranking of Bids, and recommendations of award of contract may result in the rejection of the bidders' bid
3. Any bid received by EDII after the last date for bid submission will be rejected
4. The Bidder shall bear all costs associated with the preparation and submission of its bid at EDII.
5. The Institute does not bind himself to accept the lowest or any tender and has the right to refuse any Tender without assigning any reason. The Institute also has the right to re-issue the Tender without Tenderers consent such re-issue.
6. Work shall be carried out at the Auditorium during/after office hours/ during nights, Saturdays and holidays. However, no extra payment will be considered for this period of working. Site should be cleaned every day on completion of work.
7. Payment terms: One month after submission of the bill. The rates quoted should be all-inclusive including GST. Submit a copy of Goods and Services Tax Registration documents along with your offer.
8. The rate quoted shall be firm throughout the tenure of the contract (including extension of time, if any, granted) and will not be subject to any fluctuation due to increase in cost of materials, Labour, etc.
9. Delivery is required to be completed within 5-6 weeks from the date of receiving of supply order. In case your quotation is accepted and an order is placed on you, the supply against the order should be made within the period stipulated in the order. The Institute reserves the right to recover any loss sustained due to delayed delivery by way of penalty. Failure to supply the material within the stipulated period shall entitle Procuring Entity to the imposition of a penalty without assigning any reasons @ 0.5% of the total value of the item covered in order as a penalty per day subject to a maximum of 5% unless an extension is obtained in writing from the Institute on the valid ground before the expiry of the delivery period.
10. The Tenderer shall be responsible for the taxes, duties, cess, fees, and other impositions payable by it under the Applicable Laws.
11. The Tenderer shall not sub -contract the work to any sub- contractor without the prior approval of the Institute. In case the contractor is found engaging the subcontractor without prior approval, the Institute reserve the right to terminate the contract.



or figure should be struck out and the correct one written above or neat it in an unambiguous way.

24. **The Institute will NOT ACCEPT ANY TENDERS THROUGH EMAIL.**
25. Any dispute, difference, or objection with regard to any matter relating to this contract shall be referred to the Sole Arbitration of any person appointed by the Director-General at the time of reference. The decision of the Arbitrator so appointed, shall be final and binding on both the parties.
26. Institute shall have the right to reject tender without assigning any reason and will have the discretion to award the work to more than one firm for the expediency of work. Therefore, EDII reserves the right to choose one or more parties or cancel the tender at its sole discretion.
27. Jurisdiction for all legal matters will be at Gandhinagar, Gujarat State.

Sd/-
Authorized Signatory

**AGENCY INFORMATION SHEET**

1.	Name of the Agency	:	
2.	Address of Registered Office/Head Office: (With telephone no.)	:	
3.	Contact Person/Mobile No.	:	
4.	Email address	:	
5.	Year of Establishment	:	
6.	Constitution of the Firm: (Public Ltd./Private Ltd./Partnership/ Proprietorship, etc.)	:	
7.	Name of the Proprietor/Partners/ Directors: (Strike out whichever is not applicable)	:	
8.	INS Accredited No.	:	
9.	PAN card No.	:	
10.	GST Registration No.	:	
11.	Experience in a number of years in handling various accounts	:	
12.	Is the Agency empanelled with Educational Institutions? If yes, name of the Institutes: (Attach separate sheet, if required)	:	
13.	Annual Turnover of the firm during the last financial year. Attach a copy of the certified audited statement of accounts or a certificate of the agency's Chartered Accountants.	:	
14.	Details of EMD (amount, bank, demand draft/cheque no./ date, etc.)	:	
15.	Infrastructure available in Ahmedabad and other cities in India	:	
16.	Attach a statement of employees, including technical and administrative staff, etc.	:	
17.	Attach a statement showing list of clients (Names, address, contact person's name and phone nos., etc.) <i>(please refer Annexure –II)</i>	:	



Annexure – II

DETAILS OF WORK EXPERIENCE CERTIFICATES

Sr. No.	Name, Address, Contact Person & Phone No. of the Client	Date and No. of Completion Certificate	Date of Start	Date of Completion	Cost of Work on Completion	Reference and Page No. of Documentary Proof of the detail missing in completion certificate



Annexure – III

FINANCIAL DETAILS

Sr. No.		1 st FY	2 nd FY	3 rd FY	4 th FY	5 th FY
		Rs. (In Lacs)	Rs. (In Lacs)	Rs. (In Lacs)	Rs. (In Lacs)	Rs. (In Lacs)
		a	b	c	d	e
1	Profit / Loss					
2	Gross Annual Turnover of Previous 5 Financial Years ending as on 31st March of last FY					
3	Average Annual Turnover for previous 5 financial years(Rs in Lacs) = $(a+b+c+d+e) / 5$					
4	Net Worth (paid up capital + reserves) as on 31st March of last FY					

(The print is to be taken in the letter head of the Chartered Accountant). The original document is to be submitted along with Technical bid)

Signature of Tenderer with Seal

Signature of Chartered Accountant with Seal



Undertaking & Acceptance of Tender Document

To,

Sr. Manager (Estate),
Entrepreneurship Development Institute of India;
(Via Ahmedabad Airport & Indira Bridge); P.O. Bhat 382 428
Dist. Gandhinagar Gujarat – India

Tender Reference:

Name of the Tender:

Dear Sir/Madam,

1. I/We have downloaded/obtained the tender document(s) for the above-mentioned "Tender/Work" from the website, namely:
.....as per your advertisement, given in the above-mentioned sites and newspaper,.....
2. I/We hereby certify that I/we have read the entire terms and conditions of the tender documents from Page no..... to (including all documents like annexure(s), schedule (s), etc.), which form part of the contract agreement and I/we shall abide hereby by the terms/conditions/clauses contained therein.
3. The corrigendum(s) issued from time to time by your department/organizations, too, have also been taken into consideration while submitting this acceptance letter.
4. I/we hereby unconditionally accept the tender conditions of the above-mentioned tender document(s)/ corrigendum(s) in its totality/entirely.
5. We understand that you are not bound to accept the lowest or any tender you may receive.
6. We have independently considered the amount of Liquidated Damages shown in the Appendix hereto and agree that it represents a fair estimate of the loss likely to be suffered by you in the event of the work not being completed in time
7. Having visited the Site and examined the Terms and Conditions of Contract and Detailed Specifications of the above named work, we offer to furnish, complete and maintain the whole of the said work in conformity with the said Terms and conditions and detailed specifications of



this Tender Documents or such other sum as may be ascertained in accordance with the said conditions of contract

8. I/we do hereby declare that our firm has not been blacklisted/debarred/terminated/banned by any Government/public sector undertaking.
9. I/we certify that all information furnished by our firm is true & correct and, in the event, that the information is found to be incorrect/untrue or found violated, then your department/organization shall, without giving any notice or reason therefore or summarily reject the bid or terminate the contract, without prejudice to any other rights or remedy including the forfeiture of the full said earnest money deposit absolutely.

I / We hereby declare that I/We have read and understood the terms and conditions and that I / We shall abide by them if the work is awarded to us.

Yours Faithfully,
(Signature of the Bidder, with official seal)

M:.....

Email:.....



Annexure – V

Declaration for Non-Blacklisting
(To be given on Company Letter Head)

To,

Sr. Manager (Estate),
Entrepreneurship Development Institute of India;
(Via Ahmedabad Airport & Indira Bridge); P.O. Bhat 382 428
Dist. Gandhinagar Gujarat – India

Tender Reference: **EDII/ADMN/OSA/ICPR/2025-2027/01**

Name of the Tender: **Annual Rate contract for Advertising Agency**

Dear Sir/Madam,

We,..... (name of the firm), having registered office at hereby declare that we are not blacklisted by any Central/ State Government/ agency of Central/ State Government of India or any other country in the world/ Public Sector Undertaking/ any Regulatory Authorities in India or any other country in the world for any kind of fraudulent activities.

Yours Faithfully,

(Signature of the Bidder, with Official Seal)



Financial Bid

Procurement, Installation & Commissioning of 100 KWP Solar Panel

Sr. No.	Description	Brand	Unit	Qty	Rate	Amount
A	Comprehensive Warranty Years				
B	Solar PV Power Plant					
1	Composite turnkey contract for design engineering, procurement, inspection, packing & forwarding transportation, unloading, storage, installation including civil work (wherever applicable), pre-commissioning & commissioning of solar power generating system of 100 KWP DC					
2	Solar System for the above contract		KW	100		
3	GST on A.1 @ 13.8%					
4	Total including GST					
5	GEDA Registration charges					
6	DISCOM connectivity charges, Meter cost, Meter Testing Charges					
	Grand Total					
C	Comprehensive Maintenance Contract (CMC) for 10-years after completion of Comprehensive warranty (item-A) above					
D	Service Tax on CMC (item-C) above					
	NET PAYABLE (RS.)					
<i>Note: Sr. No.5&6 will be paid as per actuals</i>						

Signature:

Seal:

Date:



ENTREPRENEURSHIP DEVELOPMENT INSTITUTE OF INDIA
(Via Ahmedabad Airport & Indira Bridge); P.O. Bhat 382 428 - Dist. Gandhinagar Gujarat – India

VENDOR REGISTRATION FORM

1	Name of the Vendor/Client (Please submit valid proof for the same)	:	
2	Type	:	<input type="checkbox"/> Proprietorship <input type="checkbox"/> Company <input type="checkbox"/> Firm <input type="checkbox"/> Trust Others Please Specify _____
3	Status of Vendor	:	<input type="checkbox"/> Manufacturer <input type="checkbox"/> Authorised Dealer <input type="checkbox"/> Service Provider <input type="checkbox"/> Stockist/ Traders Others _____
4	Registered Address	:	
5	State	:	
6	Name of Contact Person	:	
7	Designation of Contact Person	:	
8	Contact Number	:	
9	Official E Mail Address	:	
10	PAN (Please attach copy for the same)	:	
11	Status of Vendor under GST	:	<input type="checkbox"/> Registered <input type="checkbox"/> Un-registered
12	GST No./Provisional ID Number (Please attach copy for the same)	:	
13	Payment Terms	:	
14	Are you associated or having relationship with any of the EDII employee?	:	<input type="checkbox"/> Yes <input type="checkbox"/> No



15	If YES, please provide the relationship details	:	
16	Have you ever worked with the EDII before	:	<input type="checkbox"/> Yes <input type="checkbox"/> No
17	If YES, please provide the reference of transaction done	:	
18	Name of the Bank	:	
19	Address of the Branch	:	
20	Beneficiary Name (The Bank account to which any payment will be made, preferably, should not be on Individual's name. In case of proprietorship proper KYC should be submitted where name must match with the name provided in 1st row)	:	
21	Bank Account No.	:	
22	Bank Account Type	:	
23	IFSC Code for RTGS/NEFT	:	
List of Documents to be provided		:	
1	Copy of PAN	:	
2	Copy of GST registration Certificate (All 3 pages) - If registered under GST	:	
3	Cancelled Cheque / Bank Passbook 1st page containing Bank details	:	
4	If Company, Certificate of Incorporation	:	
5	If Partnership firm / LLP, List of Partners	:	

Date:.....

Place:.....

Prepared by:.....

Approved by:.....