

SECTION-II
INFORMATION AND INSTRUCTION TO BIDDER

1. ELIGIBILITY CRITERIA

A. TECHNICAL ELIGIBILITY CONDITIONS:

Bidder must fulfill following criteria:-

1. The Bidder should be a Company / Firm / Corporation, incorporated in India under the Companies Act, 1956 or 2013 and having experience in installation and commissioning of Solar Power Plants.

Or

A Limited Liability Partnership Firm (LLP) registered under section 12 of Limited Liability Partnership Act, 2008 and having experience in Installation & Commissioning of Solar Power Plants.

2. The bidder should have experience of having successfully completed similar works during last 3 years ending last day of Jan 2021 should be either of the following:

1. Three similar completed works with capacity not less than the 40% of total Capacity.

or

2. Two similar completed works with capacity not less than the 50% of total Capacity.

or

3. One similar completed work with capacity not less than the 80% of total Capacity.

(Similar work includes Grid Connected SPV Power Plant systems executed with 5 years of AMC with Any Central/State Govt. PSU, SNA's and Govt. Bodies.)

Note: CA certificate along with details as mentioned at Appendix-IV is required.

Copy of **Completion/Execution/Client certificate** issued by end user / owner shall clearly mention the reference of relevant work order, full address of client & details of officer issuing such certificate, actual value of executed work, actual date of completion, confirmation of successful execution of job etc.

3. Company should have class-A electrical license issued by any state government or central government.

B. FINANCIAL ELIGIBILITY CONDITIONS: -

1. Bidder shall have positive Net-worth in any one year in last three financial year.

2. Firm should have a minimum annual average turnover of Rs 100 Lacs in last three financial years.

In support of the claim of meeting the financial criterion, the bidder must furnish:

- a) Bidder shall submit —Details of Financial Capability of Bidder in prescribed Format duly signed and stamped by a Chartered Accountant.

- b) Copy of Audited Annual Financial Statements (including Balance Sheet, Profit & Loss Account, Auditor Reports etc.) shall be submitted in bid shall be duly signed and stamped by a Chartered Accountant.

Bidder should submit following documents along with Technical bid -

1. Company Incorporation Certificate / Company Registration Certificate.
2. Copy of GST Registration no. & PAN no.
3. Tender Fee & EMD
4. Balance sheet for last three years.
5. Turnover Certificate duly certified by practicing CA.
6. Last Three years Income Tax Return.
7. Experience Qualification as per tender eligibility conditions. Copy of relevant **Work Order/ Contract/ Service Order**, clearly mentioning Nature of Work/Service, Various Components/Items, Scope of Work, Period, Value etc.
8. Any other relevant documents

C. OTHER CONDITIONS:

1. **Responsibility for executing Contract:** The contractor is to be entirely responsible for the execution of the contract in all respects in accordance with the terms and conditions as specified in the acceptance of tender.

The contractor shall not sublet transfer or assign the contract to any part thereof without the written permission of CE - PL (Corporate office) ITI limited, corporate office bhavan, Dooravaninagar, bangalore. In the event of the contractor contravening this condition, CE - PL (corporate office) ITI limited corporate office bhavan, Doorvaninagar, bangalore. reserves the right to cancel the contract and place the contract elsewhere. Any loss or damage arising out of this situation has to be borne by the contractors and ITI shall not be responsible for it.

2. **Document:** The bidder should have a valid **PAN / TAN /GST No & other statutory document** as applicable and produce attested copies of such certificates along with the tender papers in Technical Bid, failing which the tender is liable to be rejected. Check list to be attached.

D. PRICES:

- a. Prices are to be quoted **in Indian Rupees, FOR ITI Ltd, CORPORATE OFFICE, Bangalore.**
- b. Prices quoted in the Price/Financial Bid must be meaningful and measurable in the context.
- c. Price must be quoted in original sheet of BOQ failing which the same is liable to be rejected.
- d. Offer shall be valid for minimum 120 days from the date of bid opening.

A. RELAXATION OF PRIOR TURNOVER AND PRIOR EXPERIENCE FOR STARTUPS (AS DEFINED IN GAZETTE NOTIFICATION NO. D.L-33004/99 DATED 18.02.2016 AND 23.05.2017 OF MINISTRY OF COMMERCE AND INDUSTRY), AS AMENDED TIME TO TIME. Relaxation of prior **experience and turnover** for start-ups is **applicable** to this tender.

For availing the relaxation, bidder is required to submit requisite certificate towards Start-up enterprise registration issued by Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and the certificate should be certified by the Chartered Accountant (not being an employee or a Director or not having any interest in the bidder's Company/firm) and notary public with legible stamp.

The relaxation of prior experience and prior turnover to Startups [whether Micro & Small Enterprises (MSEs) or otherwise] is to be given to the specific goods/ job domains wherein they are registered for.

Since certificate of DPIIT towards recognition do not specify the goods/ job domain, startups are required to submit the documents for the same including the application submitted to DPIIT.

The certificate shall only be valid for the entity:

- (i) Upto ten years from the date of its incorporation/ registration and
- (ii) If its turnover for any financial years since incorporation/ registration has not exceed Rs. 100 Crores.

Further, above document should be certified by the **Chartered Accountant** (not being an employee or a Director or not having any interest in the bidder's company/firm) and **Notary Public** with legible stamp.

In case of startup where the Financial statement of Startup (s) is not available and **Net Worth** could not be established with other documents like Memorandum of Association, etc., the certificate issued by Chartered Accountant/ Certified Public Accountant (CPA) may be considered.

"Those bidder from a country which shares a land boundary with India. If yes, whether the bidder is registered with the "competent authority".

Definition of country which shares a land boundary with India and Competent authority would be in accordance with Office Memorandum number F.No. 6/18/2019-PPD dated 23rd July 2020 issued by Ministry of Finance, Department of Expenditure, Public Procurement division, Government of India".

2. SCOPE OF WORK

Tentative BOQ (for tender purpose) for the work *Survey, Design, Fabrication, Supply, Installation, Testing and Commissioning of 100 KWp Grid Connected Solar PV Power Plant under ROOFTOP/GROUND MOUNTED Net-Metering Policy 05 Years of Comprehensive Operation & Maintenance Contract at ITI Limited, Bangalore Plant, Dooravani Nagar, Krishanaraja Puram, Bangalore-560016.*

S. N	Item Description	Qty.	Supply	E&C	O&M	Remark
1	Solar PV module of capacity not less than 325 Wp as per technical specifications	For 100 KW	By ITI	Bidder	Bidder	ITI will supply 325W Poly crystalline Solar Module. Bidder has to design the project Accordingly. Bidder to specify the quantity of solar modules.
2	High grade MS with Zinc Coating/ Pre GI structures (as per Site requirement) of required sizes and shapes for fixing Solar panels and other	For 100 KW	Bidder	Bidder	Bidder	Final design shall be Submitted by successful bidder after placement of LoA.
3	String Inverter, as per Technical Specifications.	For 100 KW	Bidder	Bidder	Bidder	Make: Delta/Schneider/SMA/ABB
4	Transformer 11KVA, oil cooled	For 100 KW	Bidder	Bidder	Bidder	Make: GE/CG/Equivalent make
5	LT Panel of suitable rating	For 100 KW	Bidder	Bidder	Bidder	Reputed Make
6	Remote Monitoring Equipment (SCADA) Communication Equipment, Desk top with 32" LED Screen, Wifi equipment	One Set	Bidder	Bidder	Bidder	Compatible with Inverter/PCU and with RS485/ Wi-Fi / Mod bus/LAN Communication Interface
7	Supply of D.C. cables 6 Sq. mm/10 Sq. mm, 1C	As per design and site Requirement.	Bidder	Bidder	Bidder	Size of the cable to be Decided based on voltage drop. Make: Polycab/KEI/Havells

8	Laying, termination of (Overhead/surface), testing and commissioning of copper conductor, XLPE insulated armored cables (as per IS spec and specifications) of various sizes required to complete the work.	As per design and site Requirement.	Bidder	Bidder	Bidder	
9	Supply of LV, Al armored AC Cables with size of 3.5C X 120 sq. mm minimum	As per design and site Requirement.	Bidder	Bidder	Bidder	Make: National/Poly Cab/KEI/ Havells
10	Laying (Overhead/surface), Termination, testing and commissioning of 1.1 KV XLPE insulated, GS wire	As per site requirement and design for site	Bidder	Bidder	Bidder	
11	Supply, Installation of ACDB/DCDB/Junction Box/Array Junction Box and associate Accessories	As per site requirement and design for site	Bidder	Bidder	Bidder	Reputed Make
12	Earthing & LA (ECE Type)- Supply, Erection, Testing and Commissioning of all earthing equipments and LA(ECE Type) as per relevant IS standard and applicable IE rules to complete the work.	As per design and site Requirement.	Bidder	Bidder	Bidder	Calculation, Design & Drawing to be submitted for approval
13	Safety Equipment- Supply and fixing of CO2 based firefighting equipments of reputed make, ISI marked as per the actual site requirement.	As per design and site Requirement.	Bidder	Bidder	Bidder	
14	Civil Works - All the Associated Civil works complete in all respects, required to complete the work such as Mechanical structure foundation and cable trench work etc. will be in the scope of bidder.	As per design and site Requirement.	Bidder	Bidder	Bidder	

15	Metering System- The Bidirectional electronic energy meter (0.5 S Class) for measuring Export – Import energy meter conforming to relevant IS/IEC standard and as per regulation of respective states for 11 KV/33 KV outgoing feeder suitable for interfacing with GPS time synchronization equipment.	As per design and site Requirement.	Bidder	Bidder	Bidder	Specification shall be as per respective KSRC DISCOM guideline Make: HPL/Secure/L&T
16	Solar Energy Meters as Per requirement of connection points as per guidelines of MNRE/ DISCOM/SEB	As per design and site Requirement.	Bidder	Bidder	Bidder	Specification shall be as per KSRC DISCOM guideline Make: HPL/Secure/L&T
17	Suitable equipment for DG Synchronization	As per design and site Requirement.	Bidder	Bidder	Bidder	
18	Tool kit for Installation-commissioning	As per design and site Requirement.	Bidder	Bidder	Bidder	
19	Misc. Supply/works: Any other supply/work essential to complete the project work.	As per design and site Requirement.	Bidder	Bidder	Bidder	

Note: The SPV Modules for 100 kWp Solar Power Plant shall be supplied by ITI Limited at site.

The above BOQ is only for guidance purpose so that bidder gets an overview of the work to be executed. **However, it is mandatory for bidders to use the make given of the components as stated in the BOQ while designing of the project.** Bidders are requested to visit site before quoting the tender. Detailed BOQ covering preferred make, complete in all respects needs to be submitted by the bidder after the award of work to him and after the approval of detailed drawings of the project from ITI.

A. The system shall consist of (but not limited to) following equipment:

- (b) Remote Monitoring System with associate hardware
- (c) Module Mounting Structures (MMS) as per suitability of site
- (d) Cables and hardware
- (e) LT Panel or conventional switchyard
- (f) Transformers of suitable capacity
- (g) Metering cubicle with ABT energy meters (main and check meters) at 11 kV switch yard in the PV plant
- (h) AC Distribution boxes and DC distribution boxes
- (i) Earthing kits & Earth mat
- (j) Lightning arrestors in solar array
- (k) Tool Kits for maintenance along with personal protective equipment
- (l) Weather monitoring equipment (for measuring Solar Radiation, Temperature etc.)
- (m) Mandatory spares
- (n) Illumination system for the plant including control room & switchyard
- (o) Consumable for Modules washing and other items during O & M.

B. Grid interfacing, including all equipment required for the same such as isolators, lightning arrestor, panels, protection equipment, cables, conductors, earthing and SPV Panel yard etc. as per statutory requirements and comply to CERC Grid code and State Electricity Board.

C. Scope of Work of Contractor: - The scope of work of the contractor is to survey, design, supply the material as per BoQ and any other item to complete Installation-Commissioning and 5 years O & M of SPV Power Plants. It includes: -

- Safe Storage, Safety and security of the Materials at Site.
 - Design, Fabrication, Supply of MS Structures suitable for installation of 100 kWp Grid Connected Solar Power Plant. The contractor shall make the installation shadow free.
 - The Mechanical Structures be capable of withstanding a wind load of 150 km per hour after erection and installation (or as per local area need). The certificate is required by chartered engineer in this regard. Supply of material as per detailed BoQ but not limited to it.
 - Material required such as cables glands, tags, cable trays, GI Strip for earthing material & item mention in above list etc. to complete job.
 - Installation & commissioning of Module Mounting Structures, SPV Modules, String Inverter, Energy meters, Accessories etc.
 - Installation of earthing material and lightning system, testing and commissioning of complete earthing and lightning system as per specification requirement.
 - Laying, Termination, Glanding, Ferruling of all interconnecting cables among sub array, String Inverter, Conduiting, Cable Trays and load panel etc.
 - Wiring of complete solar system as per requirement.
 - Testing of DC/AC wiring as per requirement.
 - ITI shall handover the Solar Module (ITI scope) at Site.
 - Any other work, tools & tackles required for completion of the project shall be arranged by the contractor.
 - Meter cubical , testing, CT testing in Discom Lab and liasioning with Discom is in the scope of contractor.
- ✓ All necessary items/manpower/arrangements required for Proper and Safe Installation & Commissioning of Power Plant will be arranged by the contractor. Any material other than mentioned in Scope of work which is required for I&C of Power Plants is in scope of the agency.

- ✓ Contractor shall take all necessary steps, follow up & liaisoning towards the Net Metering arrangements.
- ✓ Contractor will take necessary statutory approvals/ clearances from all concern departments, Electrical Clearance from department etc. for installation & commissioning of Power Plant.
- ✓ Contractor shall re arrange the existing AC wiring if required.
- ✓ All arrangements for their deployed workman/manpower at site will be taken care by the contractor itself.
- ✓ Contractor/agency shall give declaration that site has been visited and all information towards timely completion of project has been collected and taken care before quoting for the above enquiry.
- ✓ Prices quoted must be firm and fixed. No price variation/escalation shall be allowed.
- ✓ Contractor shall arrange all the manpower and material required for inter-connection of the SPV Power Plant to the load.
- ✓ After successful installation – commissioning of the Power Plant Contractor shall get a certificate of installation, commissioning and satisfactory operation from beneficiary as per requirement of work order.
- ✓ After installation – commissioning of the Power Plant Contractor shall arrange the inspection of Power Plant from ITI as per work order requirement and expenses, if any, shall be borne by contractor.
- ✓ Contractor shall install and commission the Power Plant in the stipulated time given by the agency.
- ✓ Contractor will submit weekly Project Execution Plan (PEP) along with offer. In which contractor gives the details that how will project accomplished. Contractor shall also submit the PERT CPM for project scheduling & Management. ITI can give the milestones to contractor.
- ✓ Shall maintain the system for a period of 5 years from the date of completion of I&C Work mentioned in Completion Certificate.
- ✓ Shall maintain the MS / Pre GI Structures without any rusting for the period of 5 years.
- ✓ Site clearance and removal of trees for ground based solar power plant will be in the scope of bidder.
- ✓ All the approval from the statutory authority from the concern department for above work will be in the scope of bidder.

- ✓ Water supply if required will be provided by ITI-Bangalore at one point and further network of water supply will be in the scope of bidder.
- ✓ Electric supply if required will be provided by ITI- Bangalore at one point and network of electric supply will be in the scope of bidder.
- ✓ Material handling will be in the scope of bidder.

D. The following works will be carried out by the contractor at site: -

i. Civil work for module mounting structures of SPV module

- a) Contractor shall prepare foundations (as per final design in accordance with site requirement) for installation of Modules Mounting Structures complete with plaster and White Wash color as per requirement. Any other civil work required for installation- commissioning of the Power Plant shall be carried out by contractor as per work order requirement and to the ITI satisfaction.
- b) Preparation of cement, concrete (mixing as per final design) & mortar foundation in the designed ratio for all MS Mounting Structures as per layout/drawing enclosed.
 - A. **Size of Foundation:** -
 - B. **Nos. of GI bolts used in each Foundation:** -
 - C. **Nos. of Foundation:** -
- c) Contractor shall supply and fix the reinforced Iron Rod (suitable size as per site requirement) for strengthening of Civil foundation.
- d) Contractor shall fix the Module Mounting Structures of suitable height as per as per actual site requirement.

ii. Fixing & Installation of solar system equipments

- a) Fixing of Module Mounting Structure & Accessories
- b) Fixing of SPV module
- c) String Inverter with data logger
- d) Installation of Export-Import & Solar Meter
- e) Earthing and Lightning Arrestor (ECE Type)
- f) All the cables (AC and DC both)
- g) Wiring of complete SPV Power Plant & testing, commissioning of the same
- h) Danger/Caution Sign board

Note: - *Defect liability period is 5 years from date of commissioning and handing over the Power plant(s) to beneficiary.*