



**Creating Infrastructure**  
A PPP INITIATIVE OF GOVERNMENT OF KERALA

**Notice Inviting Quotations for Supply of Solar PV modules at  
different locations in Kerala.**

**Ref No: IL-RED-NIQ-SPVMODULES/24-25/01**

**INKEL Limited,  
Door No. 14/812 & 813 1st Floor,  
Ajiyal Complex,  
Kakkanad, Cochin Kerala-682030  
Phone: +91 484 2978101  
Email: tenders.re@inkel.in**

## 1. ABSTRACT

<b>Title</b>	<b>Notice Inviting Quotations for Supply of Mono PERC Half Cut Bifacial/Mono-facial and Topcon Bifacial/Mono-facial Modules with capacity 540Wp or above at different locations in Kerala.</b>
<b>Reference No:</b>	<b>IL-RED-NIQ-SPVMODULES/24-25/01</b>
<b>Mode of Application</b>	<b>Online via email to <a href="mailto:tenders.re@inkel.in">tenders.re@inkel.in</a></b>
<b>Date of release of EOI</b>	<b>16.01.2025</b>
<b>Last date &amp; Time of submission of EOI</b>	<b>28-01-2025</b>
<b>Contact Details for clarification</b>	<b>Manager (RE) - 0484-2978101(Extn 509) AGM (RE) - 0484-2978101 (Extn 501) Email: <a href="mailto:tenders.re@inkel.in">tenders.re@inkel.in</a></b>
<b>Date and Time of opening of NIQ</b>	<b>28-01-2025</b>

Interested Supplier/Manufacturer/Other Dealers shall download the EOI documents from INKEL website ([www.inkel.in](http://www.inkel.in)) and submit the application for empanelment online on or before the deadline mentioned above.

**Kakkanad  
16-01-2025**

**S/d  
Managing Director**

## **2. PREAMBLE**

2.1. INKEL LIMITED (INKEL) is a public-private partnership (PPP) company promoted by Government of Kerala. INKEL is an innovative PPP initiative which brings together Government Agencies, prominent global investors, NRI Industrialists and businessmen. It is engaged in setting up sustainable infrastructure models to address all the infrastructure requirements of industrialists and entrepreneurs in the state of Kerala.

2.2. INKEL Ltd offers services ranging from Project Concept development to the Completion and Handing over stage covering Sectors like Construction, Road & Bridges, Development of Industrial/Business Park, Engineering Design and Consultancy, PMC, Advisory & Management Consultancy, Education and Skill development, Health & Hospitality, Power, Facilities Management, Hi-Tech Agro and Renewable Energy.

2.3. Renewable Energy is one of the core departments of INKEL Limited and is involved in the implementation of solar PV projects throughout Kerala.

2.4. INKEL is in requirement of Solar PV Modules for its projects in Kerala and is looking for a reputed supplier for the same.

## **3. Eligibility Criteria**

The bidder must fulfil the following eligibility criteria.;

3.1. The bidder must be registered under GST.

3.2. The bidder must be Original Equipment Manufacturer (OEM) or Authorized Distributor/ Dealer of Solar PV Modules. (Authorization letter to be submitted along with quotation)

3.3. The OEM should have been in existence for at least 8 years as on the last date of submission.

3.4. In case the bidder is an OEM, the name of the bidder shall be listed in the latest ALMM list issued by MNRE.

3.5. Bidders should provide Audited Reports of last 3 years to prove their financial health and capability to handle large orders along with ITR reports.

3.6. The quoted modules should comply with BIS (Bureau of Indian Standards) and MNRE (Ministry of New and Renewable Energy) guidelines.

3.7. Bidders should provide warranty terms (typically 10-12 years for modules and 25 years for performance).

The Supplier/Manufacturer/Other Dealers shall submit the Quotations/Price bids addressed to “Managing Director, INKEL Limited, 1st, Floor, Ajiyal Complex, Kakkanad, Cochin, Pin: 682030, Phone: 0484-2978101, 0484-2978103” and via E-mail “**tenders.re@inkel.in**”. The Price bid file should be password protected.

The last date for receipt of applications is **28-01-2025**

The bidder is required to submit all required documents as part of the bid. These documents must be submitted in password-protected files.

The password for the files must be shared separately and confidentially with the procurement authority or the designated contact person as per the instructions.

**Note: Please sign and seal all the pages in the Notice Inviting Quotation and return the same.**

- The quotation shall be valid for 3 months from the date of opening of quotation. No correspondence would be made with the bidders once the quotation is submitted. The decision taken in the INKEL Committee will be final.
- The estimated cumulative capacity required is 6000kWp. Purchaser shall state the actual quantity to be supplied by the bidder in the Purchase Order. Purchaser reserves the right to reduce or increase the quantity of purchase as required without change in the agreed rate. The total quantity of 6000kWp is cumulative of different sites within Kerala.
- The timeline for supply will be before **March 2025**.
- INKEL Ltd reserves the right to modify/cancel any or all quotations without assigning any reasons. Inkel shall issue the Purchase Order after consolidating the requirements and site locations. The Purchase Orders may be issued as multiple orders based on the consolidated requirements and site locations.

#### **4. Bid Submission Checklist:**

The bidder shall submit the following:

##### 1. Technical Bids:

- 1.1. The entire NIQ signed and sealed as a token of acceptance of terms and conditions.
- 1.2. Copy of GST registration certificate.
- 1.3. Copy of Registration Certificate and PAN Card.
- 1.4. Documents to prove the annual Turnover of the bidder
- 1.5. Certifications required for proving technical compliance (IS/IEC standards specified in technical specification.)

##### 2. Price Bids:

- 2.1. Price Bid as per Appendix 3.

Sd/-  
Managing Director

## **Appendix 1 - Scope of Supply and Technical Specification**

### **1. Scope of Supply**

- Supply of PV Modules as per the specifications mentioned below having BIS Certifications.
- The estimated cumulative capacity required is 6000 KW. Purchaser shall state the actual quantity to be supplied by the Bidder in the Purchase Order. Purchaser reserves the right to reduce or increase the quantity of purchase as required without change in agreed rate. The total quantity of 6000kWp is cumulative of different sites.

### **2. Delivery Locations**

Mono PERC Half Cut Bifacial/Mono-facial and Topcon Bifacial/Mono-facial Modules with capacity 540Wp or above.to be delivered at different locations in Kerala.

### **3. Technical Specifications**

<b>Sl No</b>	<b>Type of Module</b>	<b>Module Capacity</b>	<b>Aggregated Required SPV Capacity</b>	<b>Standard</b>
1	Mono PERC Half Cut Bifacial (Non-DCR)	540 Wp or above	6 MWp	As per MNRE standards 1. IS 14286 2. IEC 61215/ IS 14286 3. IEC 61701 4. IEC 61730-1,2
2	Mono PERC Half Cut Mono-facial (Non-DCR)	540 Wp or above	6 MWp	
3	Bifacial N - Type TOPCon Module (Non-DCR)	580 Wp or above	6 MWp	

The general quality & specifications for the PV Module are detailed below:

- a. The PV modules shall be listed under the latest approved list of Approved List of Models and Manufacturers (ALMM) issued by MNRE from time to time.
- b. The PV modules must be PID compliant, salt, mist & ammonia resistant and should withstand weather conditions for the project life cycle.
- c. Anodized Aluminum module frames of sufficient thickness shall be used which are electrically & chemically compatible with the structural material used for mounting the modules having provision for earthing
- d. The junction boxes shall be IP67 rated and UV resistant. Bypass diodes shall be provided in the Junction box. 4 Sq.mm copper cable of 1.2Mtrs

length with MC4 connectors shall be provided for interconnection of the PV Module.

- e. The rated power of solar module shall have only positive tolerance.
- f. The Efficiency of Solar Modules shall be greater than 20%.
- g. Shading correction/ bypass diode for optimizing PV out to be incorporated in each solar module or panel level.
- h. Each PV module used in any solar power project must use a RF identification tag (RFID) which must contain the following information. The RFID can be inside or outside the module laminate but must be able to withstand harsh environmental conditions.
  - Name of the manufacturer of PV Module.
  - Name of the manufacturer of Solar cells.
  - Month and year of the manufacture (separately for solar cells and Modules).
  - Country of origin (separately for solar cell and module).
  - I-V curve for the module.
  - Peak Wattage, IM, VM and FF for the module.
  - Unique Serial No. and Model No. of the module.
  - Date and year of obtaining IEC PV module qualification certificate.
  - Name of the test lab issuing IEC certificate.
  - Other relevant information on traceability of solar cells and module as per ISO 9000 series.
- i. The following details should be provided on the module
  - Name of the manufacturer.
  - Month and year of manufacturer.
  - Rated Power at STC.
  - VMP, IMP, VOC, Isc.
- j. The PV modules must qualify (enclose Test Reports/Certificates from IEC/NABL accredited laboratory) as per relevant IEC standard. The Performance of PV Modules at STC conditions must be tested and approved by one of the IEC/NABL Accredited Testing Laboratories.
- k. The PV modules shall conform to the following standards
  - IS 14286: Crystalline silicon terrestrial photovoltaic (PV) modules- design qualification and type approval.
  - IEC 61215 / IEC 61646: c-Si (IEC 61215): Crystalline silicon terrestrial photovoltaic (PV) modules – Design qualification and type approval Thin Film (IEC 61646): Design, Qualification & Type Approval.

- IEC 61730-1: Photovoltaic Module safety qualification-Part1: Requirements for construction
- IEC 61730-2: Photovoltaic Module safety qualification-Part2: Requirements for Testing.
- IEC 61701: Salt mist corrosion testing of photovoltaic modules.
- IEC 62716: Test Sequences useful to determine the resistance of PV Modules to Ammonia (NH3)

l. The PV module should have IS14286 qualification certification for solar PV modules (Crystalline silicon terrestrial photovoltaic (PV) modules-design qualification and type approval).

m. Warranty:

- Solar PV modules must be warranted for 10 years for their material, manufacturing defects, workmanship. The output peak watt capacity which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- Original Equipment Manufacturers (OEM) Warrantee of the Solar PV Modules shall be submitted by the bidder.
- The Warranty Card must contain the details of Solar PV Modules including serial number.

**4. LIST OF ANNEXURES TO BE ATTACHED ALONG WITH THE BID**

1. Manufacturer registration certificate
2. GST registration Certification and PAN Card.
3. Undertaking stating that the company has not been blacklisted at any SNA/ DISCOM/ MNRE. (On the letterhead of the company.)
4. ALMM listing details.
5. Manufacturer plant certifications (ISO 9000/ 14000/ Any other).
6. Audited Balance sheets for the last three years.
7. Brochures & Data Sheets of all Panels to be empaneled.
8. Manufactures Authorization letter in case the supplier is dealer.
9. List of PV Modules & capacities offered

Make	Model Name	Model Number	Wp Range	
			Minimum	Maximum



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Rev. No: 01

16.01.2025

**Appendix-2- CONTACT FORM**

Name of the Bidder	
Complete Office Address with Phone Number and E-mail ID	
Type of Ownership <i>(Copy to be attached)</i>	
GST No. <i>(Copy to be attached)</i>	
PAN <i>(Copy to be attached)</i>	
Year of Establishment <i>(Copy to be attached)</i>	
Name of Contact Person with Designation	
Mobile Number & E-mail ID of the Contact Person	

Name of Authorized Signatory:

Signature

Date:

Place:

Official Seal





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**Appendix-3-VENDOR/SUPPLIER INFORMATION FORM**

VENDOR/SUPPLIER INFORMATION FORM				Date:	
Sl. No.	Description	Vendor/Supplier Response			
1	Name of the Vendor:				
2	Address:				
3	Type of Organisation:				
4	Factory Address:				
5	Turn Over in last three Financial Years: <b>(Copies to be attached.)</b>	<b>2023-2024</b>	<b>2022-2023</b>	<b>2021-2022</b>	
6	Annual Production Capacity:				
7	Highest Wattage of SPV Module Currently Offered:				
8	ALMM Listing Status:				
9	BIS Certificate: <b>(Copies to be attached.)</b>				
10	List of Certificates/ Accreditations: <b>(Copies to be attached.)</b>				
<b>Sign and Seal:</b>					



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**Appendix – 3- Price Details:**  
*(To be filled by bidder in the Letter head of the Company)*

NIQ Ref No. IL-RED-NIQ-SPVMODULES/24-25/01 Dtd 16.01.2025

Sl No	Item Description	Model Number	PV Module Rating (Wp)	Rate /Wp	
				Basic Rate	Rate with GST
1.	Mono PERC Half Cut Bifacial				
2.	Mono PERC Half Cut Mono facial				
3.	Bifacial N - Type TOPCon Module (Glass to Transparent Back sheet)				
4.	Bifacial N - Type TOPCon Module (Glass to Glass)				

**Terms and Conditions:**

The Price shall be inclusive of GST, all other taxes and duties, costs for Factory Acceptance tests, Packing charges, Transportation to site, Transit Insurance.

**Payment terms:**

1. 5% of the order value as advance against the submission of Proforma Invoice and signed agreement.
2. 20% will be released on completion of Pre-dispatch Inspection and ready for dispatch
3. Balance 75% will be issue as Letter of Credit (LC) for 45 days from date of Invoice. All the LC charges are borne by the supplier.
4. Release of tax portion on receipt of original tax invoice, reflection of credit in the GST Portal and warranty certificates along with the serial Numbers.

Bidder Name:

Signature .....

Date:

Official Seal