



EXPRESSION OF INTEREST FOR  
EMPANELMENT OF CONTRACTORS FOR  
SUPPLY, ERECTION, TESTING AND  
COMMISSIONING OF HYBRID SOLAR  
ROOFTOP POWER PLANTS

No: IL-RED-EOI-  
EMPKA/2022

Rev. No : 01

21.09.2022



**INVITATION OF  
EXPRESSION OF INTEREST FOR EMPANELMENT OF  
CONTRACTORS FOR SUPPLY, ERECTION AND  
COMMISSIONING INCLUDING OPERATION AND  
MAINTENANCE, TESTING OF HYBRID SOLAR ROOFTOP PV  
PROJECTS IN KARNATAKA**

**INKEL Ltd.**  
**7/473ZA – 5 & 6, 1<sup>st</sup> and 2<sup>nd</sup> Floor, Ajiyal Complex,**  
**Kakkanad, Cochin, Pin: 682030 (Kerala)**  
**Phone: 0484 2978101**



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## 1. ABSTRACT

Title	Invitation of Expression Of Interest For Empanelment of Contractors For Supply, Erection Testing And Commissioning, Operation and Maintenance Of Hybrid Solar Rooftop PV Projects at Karnataka.
Reference No.	IL-RED-EOI-EMPKA/2022
Location of work	Various locations within the state of Karnataka
Capacity of Solar Plants	1kWp to 20kWp
Type of Solar Plants	Hybrid Rooftop Plants
Date of release of EOI	21/09/2022
Last date & Time of submission of EOI	01/10/2022 up to 2.00 PM
Application Fee	Nil
Mode of Application	Offline
Validity of Empanelment	1 year
Contact details for clarification	Sree_kumar@inkelkerala.com
Date and time of opening of EOI	03/10/2022 at 3.00 PM

Interested contractors shall download the EOI documents from INKEL website ([www.inkel.in](http://www.inkel.in)) and submit the application for at the following address anytime during working hours before the deadline mentioned above.

**The General Manager-Renewable Energy Division**

**1<sup>st</sup>Floor Ajiyal Complex,**

**Kakkanad, Cochin Pin :- 682030**

**Phone: 0484-2978101, 0484-297810**

**Kakkanad**

**21-09-2022**

**S/d**

**GM-Renewable Energy Division**

**2. PREAMBLE**

- 1.1. 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.
- 1.2. INKEL is on track to emerge as a one stop destination for meeting the requirements of implementing large scale infrastructural projects that will be self-sustaining and an instrument for fast track development of the State's economy.
- 1.3. 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.
- 1.4. Renewable Energy is one of the core departments of INKEL Limited and is involved in the implementation of Hybrid solar PV projects throughout Karnataka.
- 1.5. INKEL desires to empanel reputed vendors/Contractors who have capability to engineer, supply and also execute the site E&C works including O&M of Solar PV Plans ranging from 1kWp and above at any location in Karnataka.
- 1.6. The Contractors can be a firm or company based anywhere in INDIA. However, the contractor should have a functional office and service center in Karnataka. The office should have been functional for at least a year prior to the EOI date.
- 1.7. The projects can be anywhere in KARNATAKA. Hence the bidders are required to be aware of various statutory, regulatory requirements of state and are required to follow the various stipulations called for during the execution of project. The details of works generally to be carried out are as per Annexure-1.

**3. EMPANELMENT PROCESS**

- 3.1. Contractor have to express their interest for empanelment to INKEL by submitting application in the prescribed format along with required documents for getting listed as an empaneled agency.
- 3.2. INKEL will be evaluating the Contractor on all the parameters as per their credentials submitted and shortlist. INKEL shall intimate the shortlisted contractors for further discussions, presentations before empaneling. INKEL decision on this will be final. INKEL at their discretion shall inspect the contractor works/premises/sites for evaluation.
- 3.3. INKEL has the right to accept or reject any or all the applications without assigning any reason there of and their decision will consider as final.
- 3.4. The indicative scope of work is detailed in Annexure 1. However, INKEL may split the scope of work between contractors to meet client requirements.
- 3.5. The objective of this invitation is to identify the interest of potential companies in the categories of works listed in this EOI and to undertake a prequalification process to identify the Applicants meeting INKEL's requirements. The result of this pre-qualification exercise will be establishing lists of contractors under each of these

categories of works, to whom “Invitation to Bid/Notice Inviting Tenders” for pertinent future projects of INKEL/ to be executed by INKEL as EPC Contractor, will be issued. This is notwithstanding INKEL’S prerogative to tender the works through open e-tenders.

- 3.6. The empanelment will be for a period of 1 year. During this period the contractor performance will be evaluated on a continuous basis on works executed in INKEL project sites. INKEL reserves the rights to disqualify a vendor/Contractor based on their adverse performance levels if any during this period.
- 3.7. The eligibility of capacity for installation of single plant and total allocation per batch (allotment) will be based on the ranking done by INKEL after evaluating the EOI submitted by contractors.
- 3.8. This expression of Interest is not an agreement and is not an offer or invitation to enter into an agreement of any kind with any party by INKEL.

#### **4. REQUIREMENTS**

- 4.1. The Contractor desiring for empanelment should have experience in the supply, erection, testing and commissioning of grid connected/ off grid connected/ hybrid solar power plants. Contractor shall have minimum experience of three (3) years in the works listed above as on the date of this EOI opening date. The contractors must furnish details about their company particulars regarding the operation, facilities, manpower, number of projects executed past three years from date of EOI submission and relevant experiences with necessary credentials in support of their claim by furnishing completion certificates from the customer certifying the Scope of works and the time lines for various activities including the work order released by the customer for the projects executed.
- 4.2. The contractor should have experience of supply, installation and commissioning of a cumulative capacity of 500kWp in south india. Out of the above atleast one plant should be of 10kWp or above.
- 4.3. Contractors applying for empanelment should have a fully functional office in Karnataka. Further, the contractor should preferably have at least one service center each in the Northern, Central or Southern region of KARNATAKA (This can be in the form of authorized service partner) for contractors applying for category I.
- 4.4. Bidder should not have been blacklisted by any Govt, Agency. Declaration should be furnished.
- 4.5. The Contractor should have their own / Hire Tools, Plant and machinery for carrying out the civil, mechanical and electrical works (a typical list enclosed in Annexure-2) and should have capability for mobilizing additional Tools, Plant and machinery at short notice for simultaneous works at various fronts to meet the short schedule of works. The contractor shall have on their roll qualified Engineers and supervisors of different discipline who shall be monitoring the works carried out by skilled and unskilled labor force. The contractor shall have capacity to arrange sufficient labor so that the project schedule is not affected in any way.
- 4.6. The Contractor shall furnish the details of manpower and machinery owned by them. A typical activity plan for executing the EPC works in a time line of maximum 3 months from the zero date for 20kW Grid connected Solar PV Plant shall be submitted. The Contractor may also furnish the details of the same in the projects executed by them if any for the above exercise.

- 4.7. The Contractor should have adequate financial strength to carry out the works awarded to them. The Contractor shall submit the financial information particulars for the previous 3 years or from the date of commencement operation whichever is later in the format enclosed. Contractor should have achieved annual average financial turnover of Rs 5.0 crores per annum during the above period as evidenced by the audited financial results certified by a chartered accountant.
- 4.8. The vendor/Contractor shall be required to engineer and supply the requirement based on the customer specification and submit the drawings, datasheets and calculations for INKEL approval
- 4.9. INKEL in turn may require the contractor support in getting Customer approval for the design drawings, calculation etc. The contractor shall have design tools, software required for this purpose. Sufficient trained manpower shall be on the roll preferably. Contractors who do not have these facilities but have outsourced the same shall furnish the details of the partner firms for various activities outsourced.
- 4.10. The firm shall have on their roll a planning team for project monitoring and for logistic support. The Contractor shall also have a team of professionals in Quality and HSE on their roll for overseeing the site works in multiple location at times. The site team will coordinate with INKEL team at site and ensure that all the works are certified by the customer meeting the specification requirement. The contractor may furnish their quality plan/standards followed by them for various works including HSE practices/plan.
- 4.11. The vendor/Contractor shall bring out their concurrent commitments on various projects and the status of their resource usage to be indicated.
- 4.12. INKEL will be executing the projects based on customer specifications, tender terms and conditions. The same will be applicable to the contractor.
- 4.13. Contractor to furnish all details in INKEL furnished format covering the following details.
- 4.13.1. Company profile & organizational information.
  - 4.13.2. Ownership information
  - 4.13.3. Registration particulars
  - 4.13.4. GST, PAN
  - 4.13.5. PF, ESI details
  - 4.13.6. List of service centers in Karnataka.
  - 4.13.7. Manpower details with qualification and experience.
  - 4.13.8. Other particulars (ISO certificate, Electrical contractor license, etc. if any).
  - 4.13.9. Bank details of the Company
  - 4.13.10. Quality Systems
  - 4.13.11. Financial Information for the previous 3 years (Audited Balance sheet and Net worth details).
  - 4.13.12. Resources owned by the company-Formats A) and B)
  - 4.13.13. Work Experience in the field of solar projects or similar electrical works in last 5 years as on the date of opening of EOI.
- 4.14. All columns are to be filled up in the space provided for. Separate sheets may be attached if the space provided is insufficient or if additional information to be given.
- 4.15. The contractor shall send the application for empanelment to "The General Manager –Renewable Energy Division, INKEL Limited, 1st Floor Ajiyal



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Complex, Kakkanad, Cochin, Pin:- 682030, Phone: 0484-2978101, 0484-2978103. The last date for receipt of applications in sealed cover is 05/10/2022, 14:00Hrs. The vendor shall specify on the envelope "Application for Empanelment of Contractors for Supply, Erection and Commissioning, Maintenance of Hybrid Solar PV Projects at Karnataka".

### ANNEXURE 1

#### INDICATIVE SCOPE OF WORK (Typical list)

1. Supply of SPV Modules/Inverters, MMS and/or BOS components as per scope of work.
2. Loading, Unloading and storage of all materials and materials supplied by INKEL (as applicable).
3. Installation of MMS including civil work and PV Module laying.
4. DC/AC Cabling.
5. Installation of DCDB/ACDB/Solar PCU/Energymeters/LT Panels, etc.
6. Installation of earthing system as per standards
7. Installation of lightning protection system as per standards
8. Installation of batteries and associated systems in case of off grid systems and Hybrid systems.
9. Supply and installation of Fire protection system and equipment.
10. Obtaining Clearances from statutory agencies and government bodies for the PV Plant readiness for operation and commissioning.
11. Testing and commissioning of the plants.
12. Operation and maintenance of the PV Plant as per scope.

The above list is indicative and may vary as per site location, project requirement and scope division between contractors.

The installation of solar power plants should be as per the technical compliance and installation practices of MNRE, BESCO, KREDL, CEA and all other statutory regulations specified. Any amendments/ modification issued time to time, in this regard will be incorporated.

The detailed technical specifications and scope of work for each project will be specified in the respective Notice inviting quotations from empaneled contractors.

**ANNEXURE-2****INDICATIVE LIST OF EQUIPMENT, TOOLS AND TACKLES, INFRASTRUCTURE  
TO BE OWNED/ARRANGED.****13. Site Assessment Tools**

- a. 50-100 ft. tape measure
- b. Solar Pathfinder (evaluates the solar energy potential at a site)
- c. Compass (not needed if you're using a Solar Pathfinder)

**14. Basic Tools Needed for Installation**

- a. Angle finder
- b. Torpedo level
- c. Fish tape
- d. Chalk line
- e. Cordless drill (14.4V or greater), multiple batteries
- f. Unibit and multiple drill bits (wood, metal, masonry)
- g. Hole saw
- h. Hole punch
- i. Torque wrench with deep sockets
- j. Nut drivers (most common PV sizes are 7/16", 1/2", 9/16")
- k. Wire strippers
- l. Crimpers
- m. Needle-nose pliers
- n. Lineman's pliers
- o. Slip-joint pliers
- p. Small cable cutters
- q. Large cable cutters
- r. AC/DC multimeter
- s. Hacksaw
- t. Tape measure
- u. Blanket, cardboard or black plastic to keep modules from going "live" during installation
- v. Heavy duty extension cords
- w. Caulking gun
- x. Fuse Pullers
- y. Insulation resistance tester

**15. Additional Tools to Consider (especially for multiple installations)**

- a. DC clamp-on ammeter
- b. Reciprocating saw / Jig saw
- c. Right angle drill
- d. Conduit bender
- e. Large crimpers
- f. Magnetic wristband for holding bits and parts
- g. C-clamps
- h. Stud finder
- i. Pry bar



### **16. Tools for Battery Systems**

- a. Hydrometer or Refractometer
- b. Small flashlight (to view electrolyte level)
- c. Rubber apron
- d. Rubber gloves
- e. Safety goggles
- f. Baking Soda (to neutralizer any acid spills)
- g. Turkey Baster
- h. Funnel
- i. Distilled Water
- j. Voltmeter

### ANNEXURE-3

#### GUIDELINES TO CONTRACTORS FOR FILLING UP THE REGISTRATION FORM

1. Registration Form may be obtained from INKEL website [www.inkel.in](http://www.inkel.in).
2. Any clarification with respect to procedure for registration may be obtained from the INKEL office at the contact numbers/e-mail mentioned in the EOI Notice.
3. The Contractor Registration Form has three sections:
  - a. Section-I: COMPANY PROFILE AND GENERAL INFORMATION
  - b. Section-II : RESOURCES OWNED BY THE COMPANY
  - c. Section-III : WORK EXPERIENCEFor each of the Work experience format filled up, the following needs to be attached:
  - i. Self-attested Copy of Work Order/Award letter and allied documents containing interalia (a) Brief Description of work, (b) Value of Contract and (c) Time schedule
  - ii. Completion Certificates (Any one of the following):
    - a. Self-attested copies of Work Completion Certificates issued by Owner or agency who has awarded the contract. INKEL reserves the right to verify the authenticity of the document from the originator. Hence kindly see that all contractual details are available in the completion certificates to lend easy verification if required.
    - b. Self-attested copies of Work Order/Invoice.
  - iii. Relevant documents for each „WORK EXPERIENCE“ format being filled up are to be submitted.
4. All columns are to be filled up properly in the space provided for. Wherever it is not applicable, please mention “Not Applicable”. The form is to be signed by the authorized signatory.
5. A separate sheet may be attached if the space provided is insufficient or additional information is to be given. Please put proper identification tag on the separately attached sheet.
6. Any information / clarification required by INKEL during evaluation must be given expeditiously.
7. Please ensure that all required enclosures are attached with the filled up Contractor Registration Form and list of enclosures is given as required.
8. Incomplete forms will be rejected.
9. Please fill up the check- list given below and send along with the Contractor Registration Forms to INKEL.
10. Please note that if you are registered and participate in Tender process and qualify to get order from INKEL, your performance based on Quality of your product/work, delivery performance and service rendered will be evaluated time to time.
11. If you are attaching a document in a language other than English, a self-attested English translated document may also be attached.



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Sl.No.	Check-Point	Yes/No
1.	<b>Information against all points under “Organizational Information” has been given.</b>	
2.	<b>All enclosures and supporting documents have been enclosed.</b>	
4.	<b>All the parts of the form &amp; enclosures have been signed by Authorized Signatory.</b>	

Date :

Signature & seal

(Authorized Signatory)

**Note:** This check list is to be attached with the filled-up Contractor Registration Form.