



**CENTRE FOR DEVELOPMENT OF IMAGING TECHNOLOGY (C-DIT)**

Chitranjali Hills, Thiruvallam, Thiruvananthapuram-27  
Phone: 0471-2380910, 912 Fax: 0471- 2380681

No. C-DIT/EGV/EGS/05/22-23/T302

Date: 20.05.2022

**TENDER NOTICE**

**SUPPLY, INSTALLATION, TESTING AND COMMISSIONING OF SOLAR PV SYSTEM  
AT UDAYAMPEROOR GRAMAPANCHAYATH**

Sealed tenders are invited for the supply, installation, testing and commissioning of solar PV systems for setting up of CCTV system at Udayamperoor Gramapanchayath. The envelopes containing the tender should bear the superscription ***“supply, installation, testing and commissioning of solar PV systems at Udayamperoor Gramapanchayath”*** and should be addressed to The Registrar, Centre for Development of Imaging Technology (C-DIT), Chitranjali Hills, Thiruvallam, Thiruvananthapuram 695027. Intending tenderers may submit the tenders on their own papers by post/hand. Last date for receipt of tenders is **31.05. 2022, 3.00 PM**. Late tenders will not be accepted. The tenders will be opened at **3.30 PM on 30.05.2022** in C-DIT office in the presence of the tenderers or their authorized representatives who may be present at that time. Details of the requirements and the conditions governing the supply can be downloaded from our website [www.cdit.org](http://www.cdit.org)

Thiruvananthapuram  
20.05.2022

Sd/-  
REGISTRAR



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### **GENERAL TERMS AND CONDITIONS**

1. This Tender is invited for the "***supply, installation, testing and commissioning of solar pv systems for setting up of CCTV system at Udayamperoor Gramapanchayath***" for one of the projects taken up by C-DIT
2. **ELIGIBILITY CRITERIA OF TENDERER**  
To qualify for award of the work, the intending bidder must be an OEM authorized dealer / supplier of the quoted items with prior experience in supplying same or similar equipment at least two clients in the last two years with total executed order quantity of 25 nos or more in the last 3 years
3. The bidders will be responsible for effecting supply to the entire satisfaction of the undersigned or his authorized representatives. In case any defect in the item supplied is noticed, such item will be rejected at the risk and cost of the Supplier.
4. Bidder shall invariably be accompanied by manufacturer's catalogues and leaflets giving full specifications. Technical particulars and other details of the items offered, 'brand make' and complete specification should be mentioned in the tender. In the absence of full details and technical specification the tenders for the items will be rejected.
5. The bidder must have a currently valid GST registration certificate and PAN number.
6. Bidder should be a registered company or registered business firm as per Indian Law.
7. An undertaking to the effect that the bidder has not been blacklisted by any of the department/organisations of Govt. of India/State Govt/PSUs
8. The intending bidder shall submit experience of having successfully completed at least three orders for similar nature of work.



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### **Scope of work**

Centre for Development of Imaging Technology (C-DIT) likes to invite eligible bidders for the supply, installation, testing and commissioning of solar pv systems for setting up of CCTV solution at one of its project locations in Udayamperoor Gramapanchayath. The locations identified for the installation of solar panel poles are detailed below;

1. Nadakkavu- Mulanthuruthi Road - 7 numbers
2. Kandannad Road - 5 numbers
3. Udayamperoor panchayath office - 1 number

As per the project scenario, it is needed to install two numbers of CCTV cameras in each pole and to provide adequate power supply from the solar panel to the CCTV cameras connected in each pole. The solar panel needs to provide uninterrupted power supply to the camera system connected in poles.

### **Responsibility of the bidder**

Interested bidder should supply and install all the necessary items required other than that mentioned in the technical specification document, for the proper installation of 13 numbers of GI poles in the locations mentioned above. It is the responsibility of the bidder to implement the solar panel system properly so as to mount and operate the CCTV camera system in each pole.

The bidder should work in congruent with CDIT technicians for the project implementation, ie to provide proper support to CDIT team for installing CCTV cameras in GI poles and to provide power support to camera systems.

## Technical Specification

Sl No	Technical Specification	Quantity
1.	Supply and installation of 50mm C class GI pipe 5 metre length painted with 2 coats of double coloured synthetic enamel paint over a coat of red oxide primer/zinc chromate and digging pit of suitable and concreting the base 45x45x45 cm size using cement concrete 1:2:4 including fabricating structures for solar panel and battery box.	13
2.	Supply and installation of 180 watts solar panel (MNRE approved)with charge controller and highly efficient 75 AH 12 volt SML/Lithium battery with reflector (Exide/Liveguard/equivalent)	13

## PV MODULE

- i. Indigenously manufactured PV module should be used.
- ii. The PV module should have crystalline silicon solar cells and must have a certificate of testing conforming to IEC 61215 Edition II / BIS 14286 from an NABL or IECQ accredited Laboratory.
- iii. The power output of the module under STC should be a minimum of 180Wp.
- iv. The module efficiency should not be less than 14 %.
- v. The terminal box on the module should have a provision for opening it for replacing the cable, if required.
- vi. There should be a Name Plate fixed inside the module which will give:
  - a. Name of the Manufacturer or Distinctive Logo.
  - b. Model Number
  - c. Serial Number
  - d. Year of manufacture
- vii. A distinctive serial number starting with NSM will be engraved on the frame of the module or screen printed on the Tedlar sheet of the module.

### **CHARGE CONTROLLER**

- i. The total electronic efficiency should be at least 90 %.
- ii. Charge controller should be MPPT Type.
- iii. Electronics should operate at an appropriate voltage suitable for proper charging of the battery.
- iv. No Load current consumption should be less than 20 mA.
- v. The PCB containing the electronics should be capable of solder free installation and replacement.
- vi. Necessary lengths of wires/cables, switches suitable for DC use and fuses should be provided.
- vii. The Charge controller should have power output provisions to drive the following devices.

Sl no	Item	Working Voltage	Power consumption	Quantity
1	4 MP IR Bullet camera	DC 12 V	~20 W	2 nos
2	Internet modem	DC 5 V	1 A	1 no
3	Media Converter	DC 9 V	1 A	1 no

### **ELECTRONIC PROTECTIONS**

- i. Adequate protection is to be incorporated under “No Load” conditions e.g. when the load is removed and the system is switched ‘ON’.
- ii. The system should have protection against battery overcharge and deep discharge conditions.
- iii. The System should have protection against short circuit conditions.
- iv. Protection for reverse flow of current through the PV module(s) should be provided.
- v. Adequate protection should be provided against battery reverse polarity.

### **BATTERY**

- i. Minimum 12V, 75 AH capacity SML/ Lithium Battery.
- ii. Battery should conform to the latest BIS/ International standards.

### **MOUNTING POLE**

- i. Pole height 5 m above the ground level and 1 m below the ground so as to able to fix CCTV unit at least 4.5 m above the ground level.

## **QUALITY AND WARRANTY**

- i. The system (including the battery) will be warranted minimum for a period of one year from the date of supply.
- ii. The PV module(s) will be warranted for a minimum period of 25 years from the date of supply. The PV modules must be warranted for their output peak watt capacity, which should not be less than 90% at the end of Ten (10) years and 80% at the end of Twenty five (25) years.
- iii. The Warranty Card to be supplied with the system must contain the details of the system.

## **Other Conditions**

9. The undersigned reserve himself the rights of accepting the whole or any part of the tender and the bidder shall be bound to supply the accepted item at the rates quoted. C-DIT reserve the right to split the quantity of items to be supplied among one or more bidders, at the sole discretion
10. No advance payment will be made against supplies.
11. The rate quoted by the bidder shall be inclusive of the transportation charges and installation charges at site. Rates quoted by the bidder shall be valid for a period of six months from the date of opening of the tender.
12. Delivery period shall be specifically indicated in the tender and strictly adhered to. Unless otherwise agreed by C-DIT, the supply shall be arranged within **15 days** on receipt of the firm order. Any delay in the delivery period after the supply order is placed may result in cancellation of the supply order or payment of liquidated damages @ ½% per day subject to a maximum of 10% of contract price
13. The rate should be quoted for the unit shown in the list and tenders which do not indicate this essential information will not be considered.
- 14. The bidder shall submit the price offers in separate sealed envelopes enclosing "Form-A" along with technical detailing for each work.**
15. The rate quoted for material shall be firm and no enhancement will be allowed under any circumstances.
16. The Supplier/ Contractor shall provide on-site comprehensive warranty of **one year** for the products from the date of supply. Bidder shall also give extended

warranty for additional two years for which AMC rate should be indicated in the price proposal separately

- 17.If the bidder furnishes wrong and/or misleading data, statement(s) etc. about technical acceptability of the goods and services offered by it, its tender will be liable to be ignored and rejected in addition to other remedies available to the purchaser in this regard.
- 18.After Sales Service: The bidder should have after sales service centre in the state, preferably in Thiruvananthapuram. Complaints should be attended properly, maximum within 24 hrs. The service should be provided directly by bidder's trained personal.
- 19.All items offered shall conform in all respects to the relevant Indian standard Specification with up to date amendments wherever applicable.
- 20.Any dispute / differences between the parties arising out of and in connection with the contract shall be settled amicably by mutual negotiations. Unresolved disputes/ differences, if any, shall be settled by Arbitration and the arbitration proceedings shall be conducted at Thiruvananthapuram (India) in English language, under the Indian Arbitration and Conciliation Act(Amended), 2015. Unsettled disputes will be referred to courts and courts in Thiruvananthapuram/ Kerala will have exclusive jurisdiction over the same.
- 21.C-DIT reserve the right to cancel any or all tenders without assigning any reasons whatsoever
22. **EMD : Rs. 5,000 ( Rupees five thousand only) in the form of Demand draft drawn in favour of Registrar, C-DIT payable at Thiruvananthapuram.**
- 23.PAYMENT TERMS

The following terms of payment shall be applicable for the contract

  - a) 90% payment against successful supply and installation of the Equipment.
  - b) 10% to be released after warranty period.
- 24.Agreement: The Successful bidder within 7 days of getting confirmed purchase order has to enter an agreement with C-DIT in Rs.200 worth non judicial stamp paper, to ensure warranty and after sales support during the warranty period.
- 25.Authority: The authority for the acceptance of the tenders rests exclusively with the C-DIT. The C-DIT does not undertake to accept the lowest or any particular tender or to assign any reason whatsoever for the rejection of any tender.

26. **The last date for submission of tender 31.05.2022 3.00 PM.**

**The tender will be opened on the same day at 3.30 PM**

27. At any time prior to the deadline for submission of tenders, the C-DIT may, for any reason deemed fit by it, modify/amend the tender documents by issuing suitable amendment(s)/ corrigendum's to it. Corrigendum to this tender shall be published in the site [www.cdit.org](http://www.cdit.org). Prospective bidders are advised to regularly visit the website: [www.cdit.org](http://www.cdit.org) to keep track of corrigendum, if any.

28. In case of doubt:

If the bidder has any doubt on technical specifications or on terms & conditions stipulated above, please contact persons Smt.Sheeba Beevi.S.R, HOD(EGV) @ Mob: 8138914651.

Sd/  
REGISTRAR, C-DIT  
Dated 20.05.2022





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**FORM-A**

No. C-DIT/EGV/EGS/05/22-23/T302

Date: 20.05.2022

SUPPLY AND INSTALLATION, TESTING AND COMMISSIONING OF SOLAR PANEL SYSTEM AT  
UDAYAMPEROOR GRAMAPANCHAYATH

<b>Sl No.</b>	<b>Items Description</b>	<b>Qty</b>	<b>Unit rate</b>	<b>GST</b>	<b>Total Amount</b>
1.	Supply and providing 50mm C class GI pipe 5 metre length painted with 2 coats of double coloured synthetic enamel paint over a coat of red oxide primer/zinc chromate and digging pit of suitable and concreting the base 45x45x45 cm size using cement concrete 1:2:4 including fabricating structures for solar panel and battery box with the technical specification provided.	13			
2.	Supply and installation of 180 watts solar panel (MNRE approved)with charge controller and highly efficient 75 AH 12 volt SML/Lithium battery with reflector (Exide/Liveguard/equivalent)	13			
3	Additional 2 year Warranty (optional)				

Date

Stamp

Name & Signature of Bidder