

TENDER

for

Design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant on Tea farms in Kerala for Kerala State Electricity Board Limited (KSEBL)

Tender Number: 91181089

Date: 11.06.2024

Brief Tender Notification

Particulars	Description
Purpose of Tender	To select a qualified and experienced solar energy developer for the design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant on Tea farms in Kerala for Kerala State Electricity Board Limited (KSEBL)
Tender reference number	91181089
Date of tender announcement	11th June'2024
Site Visit	13th June' 2024 until 14th June'2024
Last date to submit pre-bid queries by the interested bidders	21st June'2024
Last date to provide clarification to the queries. All the queries will be answered in the form of (Frequently asked question) FAQ and will be uploaded on the respective web portal.	26th June'2024
Last Date and time for submission of bids	8th July'2024
Mode of Submission	Bids to be submitted via functional email id, as per the instructions given below.
Validity of Bids/ Offered Price	90 days from the last date of submission of bids i.e. The selected supplier will not be able to vary from their financial bid until the completion of the Order, if awarded by GIZ
Address for Bid Submission	The agency has to submit the proposal, on the following email id only. qn_quotation@giz.de The bidder must NOT submit the proposal on any other email id, else the bid will be rejected
Location of Performance	Thavinhall, Kerala Coordinates: 11.856544, 75.98704 11.856566, 75.987081 Wayanad, Kerala Coordinates: 11.859735, 75.989925 11.859844, 75.989862

	11.859756, 75.989865 Manathavady, Kerala Coordinates: 11.854993, 75.988005 11.855948, 75.98912 11.854965, 75.988053
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Tender Notice

GIZ Country Office (India) is soliciting the bids from a qualified and experienced solar energy developer for the design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant on Tea farm in Kerala for Kerala State Electricity Board Limited (KSEBL), as per the terms and condition of tender documents.

Purpose of the Bid

The purpose of bid is to select agency for Supply and installation of rom a qualified and experienced solar energy developer for the design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant.The detailed address and locations will be shared with bidder.

Process of tender submission

The following documents are attached with the tender applications: -

- 1) Terms of Reference
- 2) Covering Letter- Annexure- A
- 3) Declaration Letter- Annexure- B
- 4) Technical Criteria – Annexure -C
- 5) Price Submission – Annexure-D
- 6) Delivery Schedule – Annexure-E
- 7) General Terms & Conditions

Interested bidders are requested to carefully examine all documents and submit the entire tender proposal as instructed in above mentioned documents. Any deviation/ differentiation from the instruction will lead to disqualification of the tenderer from the bidding process.

The bid must reach to GIZ Country Office in digital/electronically **on or before 8th July'2024** in the below mentioned address Only-

qn_quotation@giz.de

The covering letter must be addressed to: Head of Contracts and Procurement, GIZ GmbH, Vasant Vihar, New Delhi-110057 (India)

Please mark the subject line of your email as-

- **Tender Ref: “Design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant on Tea farms in Kerala for Kerala State Electricity Board Limited (KSEBL), RFQ Nr. 91181089**

Bids received in any other manner, i.e.- hard copies, fax or in any other email ID will be summarily rejected.

Timelines

a) The bidders must submit the queries on the below mentioned email id's -

<u>Description</u>	<u>Deadline</u>	<u>Email ID</u>	<u>Remarks</u>
SITE VISIT	13.06.24 until 14.06.24	Mr. Sri Sudheesh, AE, Soura Projects, Mob: 9388578844	Timings 10:00am to 4:00pm Site visit on Working Days only.
Per-bid Queries from Bidders	21st June'24	Please send it to: sanjay.dhar@giz.de & swarup.mallik@giz.de Please do not send the queries on any other email ids	Please mention the subject line as - <u>"QUERIES FOR TENDER"</u> <i>Design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant on Tea farms in Kerala for Kerala State Electricity Board Limited (KSEBL), RFQ Nr. 91181089</i> Pre-bid queries received after the deadline or sent to any other email id, apart from the given email ids will not be considered
Clarifications given by GIZ	26th June'24		<i>The response will be prepared in form of FAQ/clarifications and shall be shared with the bidders by this date on respective web portals. Kindly keep visiting the respective web portals.</i> Individual responses to queries shall not be given.
Bid Submission deadline	8th July'24	Please send the proposal only on the below email id: qn_quotation@giz.de	Bid should be sent only on qn_quotation@giz.de email id only, Bids sent on any other email id/hard copy, will be disqualified.

Please refrain from making any personal / telephonic / telefax contact about this tender to any personnel of GIZ India.

We look forward to receiving your offers.

TERMS OF REFERENCE

A. Background:

On behalf of the Federal Ministry for Economic Cooperation and Development, the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) is supporting the Ministry of Power (MoP) under the 'Energy Transition with DISCOM' project. The objective of this project is to support the Indian energy transition, in cooperation with distribution companies (DISCOMs), with promotion of renewable energy (RE) by DISCOMs.

One of the selected DISCOM is Kerala State Electricity Board Limited (KSEBL), in the state of Kerala and under the purview of GIZ-KSEBL collaboration, technical pilots will be conducted on the identified thematic areas. Promotion of renewable energy is one of the identified themes and goal of this project.

B. Purpose of the Tender

The purpose of this tender is to select a qualified and experienced solar energy developer for the design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant for KSEBL.

The project aims to showcase proof-of-concept on 'Integrated farming with Photovoltaics', wherein solar panels on poles will be installed throughout the inner roads of the identified tea estates of Kerala, without interrupting the farming activities and crop yield. Kerala has 35000 Hectares of tea plantations that can be utilized for solar generation. Coordinates of the location are mentioned in above-section with site pictures in [annexure](#).

Outcome of the pilot project:

The output of this project is intended to benefit –

1. KSEBL by showcasing a proof-of-concept for 'integrated farming with Photovoltaics' and promotion of renewable energy in distribution system.
2. Case study for adoption of rooftop by Tea farmers in Kerala by ensuring additional income by adoption of solar energy.

Note: Bidders are suggested to consider the following points in their technical offer, but are not limited to:

1. To highlight PV plant technology selection for above mentioned pole type roadside installation. For e.g. PV panel installation type, Inverter topologies (Centralized/Microinverters/hybrid) and assessment of other critical equipment that is commercially viable needs to be addressed.
2. To carefully include all factors mentioned in part-C (Tasks to be performed by contractor)
3. To submit an BoQ with technical specification as per the guidelines mentioned in part-D. **The submitted BoQ and financial offer submitted post site visit and assessment shall be final in terms of quantities and prices, and will not change thereafter at any stage.**

C. Technical specifications and requirements

Detailed Scope of Work

The scope of work includes development of design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant on Tea Farm in Kerala. KSEBL is the owner of the land.

1. Design & Engineering

- Installation site inspection – *Land assessment for PV system installation, Grid availability for interconnection etc.*
- Preparation of detailed engineering design & specifications including civil and electrical layouts based on the site inspection
- Submission of site drawings and electrical design of the PV plant for approval from KSEBL and GIZ.
- Feasibility analysis for 100 kWp pole mounted PV plant
- Prepare list of BoQ with technical specifications required, as per site assessment, in compliance with national/international standards. (Refer Annexure D 'bill of materials and quantities)

Note: As part of the technical bid, the bidder is requested to provide reference schematic design of pole-mounted PV plant (greater than or equal to 100kW) from previous project experience.

2. Material Procurement

- Procurement and supply of equipment necessary for a 100kWp PV plant.
- The responsibility of transportation / loading / unloading / installation / transit / Storage / insurance of equipment till handing over to the end-user shall be with the selected bidder.
- All the parts and materials should fulfil the requirement of project.
- Inspection of materials shall be done at vendor premises before dispatch to delivery location and pre-installation at the site.
- All the cost associated with the inspection of materials shall be borne by vendor only.
- Vendor will inform about readiness of materials at least 1 week before the inspection.
- Performance / quality warranty of materials as required for the project.
- Safety cage, shading for the inverters and any other materials required to complete the project.

3. Installation

- Execute the installation of complete PV system in accordance with the approved design by GIZ and KSEBL.
- Coordinate with KSEBL for grid connection for the PV plant.
- Compliance to regulatory, grid connectivity and safety protocols governing solar PV installations of Kerala State Electrical Inspectorate, CEA and relevant authorities.

- Installation shall be done by the company/manufacturer's authorized and trained personnel.

4. Quality Assurance and Control

- Adhere to the safety standards and regulations during installation and commissioning.
- Implement a robust quality assurance and control process throughout the project lifecycle.
- Conduct regular inspections and testing to ensure the reliability and performance of the solar PV system.
- All components used for installation of solar power plants shall follow quality control guidelines of MNRE.

5. Coordination with Experts

- Collaborate with agriculture experts, GIZ and KSEBL to ensure seamless integration of PV system on the identified tea estate.
- Implement measures to minimize/avoid adverse impacts on the regular farming activities and yield.

6. Commissioning

- Post-installation quality check of the materials and the operation and performance of PV plant.
- Undertake the commissioning of the Integrated Farming system, including system testing and performance validation.
- Provide necessary training to end-users or maintenance personnel as required.

7. Documentation and Reporting

- Maintain detailed documentation of the entire project, including design drawings, technical specifications, and installation records.
- Submit regular progress reports and updates to GIZ.
- Maintain open and transparent communication with GIZ throughout the project.
- Coordinate effectively with relevant stakeholders, subcontractors, and third parties involved in the project.

8. Warranty and Maintenance

- Provide a comprehensive warranty for the installed PV system along with warranty clauses in printed form/version.
- As per industry standards. O&M with a maintenance plan, scheduled inspections, and prompt resolution of any issues during and after the warranty period.
- Provide an "Operation and maintenance" manual in the printed form/version.
- The expected life of the power plant is 25 years.

9. Regulatory Compliance

- Ensure compliance with all relevant local, state, and national regulations and standards governing solar energy installations.
- Obtain necessary permits and approvals for the PV project.
- Implement measures to minimize environmental impact, including proper disposal of waste materials and adherence to environmental regulations.

10. Post-Installation Support

- Offer post-installation support and troubleshooting services for 3 months as needed.
- Respond promptly to any issues or concerns raised by GIZ or end-users.

Bidders must submit the complete proposal, providing the rates for ALL THE items and services mentioned required to setup the 100kWp PV plant in the price submission format/tender document.

Incomplete offer/quoting for half/partial items will lead to disqualification of bid.

Liquidated Damages and Termination of Contract

Except because of force majeure, if the bidder fails to perform the scope of work, to the satisfaction of GIZ, within the time period specified in the delivery schedule or within the extended time period if any, GIZ shall without prejudice to its other remedies under the contract, deduct from the contract price as liquidated damage, a sum equivalent to 1% of the price of the unperformed work/ services for each week of delay until actual completion of work, up to a maximum deduction of 10%. Once the maximum is reached GIZ may consider termination of the contract.

Force Majeure

Force Majeure Events shall include the following events to the extent they satisfy the foregoing requirements:

- Natural disasters, including but not limited to lightning, earthquake, volcanic eruption, landslide, flood, cyclone, typhoon, tornado
- any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, terrorist, or military action
- any requirement, action or omission to act pursuant to any judgment or order of any court or judicial authority or Statutory Entity in India of any Law or any of their respective obligations under this Agreement
- expropriation and/or compulsory acquisition of the Project in whole or in part by any Government or Statutory Entity
- radioactive contamination or ionising radiation originating from a source in India or resulting from another Force Majeure Event excluding circumstances where the source or cause of contamination or radiation is brought or has been brought into or near the Project Site by the Affected Party or those employed or engaged by the Affected Party

- industry wide strikes and labour disturbances having a nationwide impact in India.

Force Majeure Event shall not include the following conditions, except to the extent that they are consequences of a Force Majeure Event:

- unavailability, late delivery or change in cost of steel, equipment, materials, spares parts or consumables in local market
- delay in performance of any contractor or sub-contractor or their agents
- non-performance resulting from normal wear and tear of plant, materials or equipment at the bidder's facility
- strike or labour disturbances at the facilities of the bidder
- insufficiency of finances or funds or the agreement becoming onerous to perform
- non-performance caused by, or concerned with, the bidder negligent and
- intentional acts, errors or omissions
- failure to comply with Law, or
- breach of, or default under this Agreement

Delivery of Material

The Bidder should note that it has to furnish and agree with GIZ, the delivery of the material at the project site (Annexure – F). The equipment delivery must be coordinated with GIZ before the dispatch to the project site. However, the address needs to be coordinated with KSEB and GIZ just before delivery.

SPECIAL CONDITIONS

- 1. Scope:** The scope of work to be carried out under this contract is specified in section C "Technical specifications and requirements". The Contractor will carry out and complete the said work under this contract in every respect in conformity with the contract documents and with the direction of and to the satisfaction of the Owner's (GIZ is referred to as Owner) and KSEBL. The contractor will furnish all labour, materials, and equipment (except those to be supplied by the KSEBL) as listed under BOQ and specified otherwise, transportation and incidental necessary for supply, installation, testing, and commissioning of the complete system as described in the technical specifications and as listed in BOQ. This also includes any material, equipment, appliances, and incidental work not specifically mentioned herein or noted on the drawings/documents as being furnished or installed, but which are necessary and customary to be performed under this contract.
- 2. Installation Service:** All kind of works associated with technical installation are part of the scope of this contract and the cost is inclusive of the installation service
- 3. Performance Guarantee:** The contractor will perform the work in accordance with the tender documents, drawings and other documents forming part of the contract. At the close of the work and before issue of final certificate of virtual completion, the contractor will furnish written performance guarantee against defective materials and workmanship for a period of **one year** from date of testing, commissioning, and satisfactory handing over. The Contractor will hold himself fully responsible for reinstallation or replacement, free of cost to Owner because of defective workmanship.

- 4. Specifications:** The work will be installed as per BOQ (to be provided by contractor). However, any change found essential to coordinate the installation of this work with other trades will be made without any additional cost to the Owner wherever possible or an approval will be taken from Owner. The data given herein are for the guidance of the contractor; distances, and levels will be governed by the site conditions.
- 5. Materials & Equipment:** All materials and equipment will conform to the relevant international/Indian Standards and will be of the approved make and design. Makes will be strictly in conformity with list of approved manufacturers as listed in list of approved makes. Contractor will be responsible for the safe custody of all materials and will insure them against theft or damage in handling or storage etc. High quality material adhering to the standards are required to be considered for this pilot.
- 6. Completion Certificate:** On completion, a certificate will be furnished by the Contractor countersigned by the supervisor, under whose direct supervision the installation was carried out.
- 7. Demonstration to Owner:** At completion, devices subject to manual operation will be operated at least two time in presence of Owner's site representative to demonstrate satisfactory operation.

D. BILL OF MATERIALS AND QUANTITIES

The bidder is required to provide the list of equipment required (as Table 1) with technical specifications (Table 2). The equipment should comply with necessary national and international standards for optimum performance of the PV system (Reference: Table 3).

Table 1: Bills of material and equipment

S.No.	Equipment/Job details	Brand	Model number & Individual Capacity	Unit	Quantity	Rating/Capacity
1	Solar Photovoltaic Module			Nos.		
2	Solar Inverters			Kg		
3	Remote Monitoring equipment			Kg		
4	Mounting Structure - Columns / Purlins / Rafters			Set		
5	Clamps and J Bolts			Set		
6	Fasteners			Set		
7	DC and AC Solar Cable			Mtr.		
8	Communication Cable			Mtr.		
9	Junction Boxes			Mtr.		
10	MC4 Connectors			Nos.		
11	PVC Conduits			Nos.		
12	Fuses			Nos.		

13	Lightning and Surge Arrestors			Nos.		
14	Earthing Pits, Strips and Cable			Mtr.		
15	Circuit Breakers			Nos.		
16	Cable glands and Lugs			Nos.		
17	Meter and measuring instruments			Nos.		
18	Weather Monitoring System			Set		
Civil, Installation and Fabrication						
20	Piling of MMS Column			Nos.		
21	Foundation for Inverter			Nos.		
23	Module Cleaning System			Set		
24	Cable trenching works			Job		
25	Installation & Commissioning			kWp		
26	Miscellaneous (if required and not mentioned here)					

Table 2: Technical specifications

S.No.	Components	Description
1.	Module	540Wp monocrystalline Silicon must conform standards mentioned in the table 3 with performance warranty (output : >90% nominal power after 10 years and ≥80% of nominal power after 25 years) High quality OEMs are to be considered such as Adani, Waare, LoomSolar, TATA etc.
2.	Inverter	Efficiency- 97-98%, Part load efficiency more than 97 % at 75% load and meet IEC 61683, inverter MPPT feature should comply with EN50530 or Equivalent standard. Max. output power : ±10% inverter topologies estimated, 3-phase 415V AC, voltage band – 80% to 110% of nominal V, frequency 50Hz ±5Hz; DC-to-AC ratio of 1.2 for optimal yield. -25 to 60°C, > 50°C smart de-rating; smart air fan cooling; 65.2 dBA @1m, 25°C. Protections features including anti-islanding, IP66, leakage current, low insulation, PID elimination, AC side THD<3% at full load, nighttime anti-PID, surge, lightening, short-circuit, over voltage and over current, under and over grid frequency, over temperature grid support compliance as per Table 3.

		Completely automatic including wakeup, synchronization (phase locking), sleep mode, and shut down operation enabled. LCD display and LED indications Self-protective and self-diagnostic feature for protection against damage from either component failure or external/internal causes. Communication interface with data logger (industry standard) High quality OEMs are to be considered such as SMA, Luminous, Su-kam, Microtek etc
3.	Module Mounting structure	As per site assessment. The structure should conform to analysis for Load/Wind speed tolerance of 150km/hr. The modules will be fixed on structures with fixed arrangement. The module mounting structures shall have adequate strength and appropriate design suitable to the locations which can withstand the load and high wind velocities. Standard pole height is 8' but should be optimized to the location as per assessment. High quality materials only should be used.
6.	Panel orientation	2-Landscape
7.	Electrical Accessories including cables & conduit	As per MNRE/Indian or Equivalent Electrical Standard complied mentioned in table 3. high quality OEMs such as Havells, Honeywell, ABB, Siemens, Schneider, etc shall be considered.
8.	Cables	DC cables & connectors, insulated (UV resistant for outdoor installation) , voltage drop in string 1.5% Ac < AC voltage & Power drop 2.5% high quality OEMs such as KEI, Havells, Polycab, etc are to be considered.
10.	Environmental Design Wind Speed Temperature Range	ASCE 7-22 Standard operating wind load 145-225 km/h (90-140 mph) Operation: -25°C to 50°C (-13°F to 122°F) Survival: -40°C to 60°C (-40°F to 140°)
11.	Control & Monitoring System	SCADA Monitoring System, Metering Systems, Weather monitoring system high quality OEMs such as ABB, Schenider, GE, L&T, Landis gyr, Secure, Siemens, etc. are to be considered.
12.	Standards and Certifications	ANSI, NEMA, NFPA, IEC, UL, CE and mentioned in Table 3.
13.	Warranty	At least, 10-year Structural

		5-year Drive Unit, other equipment and components installed. The expected life of the system is 25 years. Performance Ratio (PR) of the power plant needs to be calculated as per IEC 61724 At least 3 -years of O&M for the entire PV system.
14.	Commissioning Plan	Onsite commissioning
15.	Onsite service plan	Assembly training, Quality Assurance & related customer support

Table 3: Standards for the Equipment's and Jobs

Solar PV Modules/Panels	
IEC 61215/ IS 14286	Design Qualification and Type Approval for Crystalline Silicon Terrestrial Photovoltaic (PV) Modules
IEC 61701	Salt Mist Corrosion Testing of Photovoltaic (PV) Modules
IEC 61853- Part 1/ IS 16170: Part 1	Photovoltaic (PV) module performance testing and energy rating –: Irradiance and temperature performance measurements, and power rating
IEC 61730-1,2	Photovoltaic (PV) Module Safety Qualification – Part 1: Requirements for Construction, Part 2: Requirements for Testing
IEC 62804	Photovoltaic (PV) modules - Test methods for the detection of potential-induced degradation. IEC TS 62804-1: Part 1: Crystalline silicon (mandatory for applications where the system voltage is > 600 VDC and advisory for installations where the system voltage is < 600 VDC)
IEC 62759-1	Photovoltaic (PV) modules – Transportation testing, Part 1: Transportation and shipping of module package units
Solar PV Inverters	
IEC 62109-1, IEC 62109-2	Safety of power converters for use in photovoltaic power systems – Part 1: General requirements, and Safety of power converters for use in photovoltaic power systems Part 2: Particular requirements for inverters. Safety compliance (Protection degree IP 65 for outdoor mounting, IP 54 for indoor mounting)
IEC/IS 61683 (as applicable)	Photovoltaic Systems – Power conditioners: Procedure for Measuring Efficiency (10%, 25%, 50%, 75% & 90-100% Loading Conditions)
BS EN 50530 (as applicable)	Overall efficiency of grid-connected photovoltaic inverters: This European Standard provides a procedure for the measurement of the accuracy of the maximum power point tracking (MPPT) of inverters, which are used in grid-connected photovoltaic systems. In that case the inverter energizes a low voltage grid of stable AC voltage and constant frequency. Both the static and dynamic MPPT efficiency is considered.
IEC 62116/ UL 1741/ IEEE 1547 (as applicable)	Utility-interconnected Photovoltaic Inverters - Test Procedure of Islanding Prevention Measures
IEC 60255-27	Measuring relays and protection equipment – Part 27: Product safety requirements

IEC 60068-2 (1, 2, 14, 27, 30 & 64)	Environmental Testing of PV System – Power Conditioners and Inverters a) IEC 60068-2-1: Environmental testing - Part 2-1: Tests - Test A: Cold b) IEC 60068-2-2: Environmental testing - Part 2-2: Tests - Test B: Dry heat c) IEC 60068-2-14: Environmental testing - Part 2-14: Tests - Test N: Change of temperature d) IEC 60068-2-27: Environmental testing - Part 2-27: Tests - Test Ea and guidance: Shock e) IEC 60068-2-30: Environmental testing - Part 2-30: Tests - Test Db: Damp heat, cyclic (12 h + 12 h cycle) f) IEC 60068-2-64: Environmental testing - Part 2-64: Tests - Test Fh: Vibration, broadband random and guidance
IEC 61000 – 2,3,5 (as applicable)	Electromagnetic Interference (EMI) and Electromagnetic Compatibility (EMC) testing of PV Inverters
Fuses	
IS/IEC 60947 (Part 1, 2 & 3), EN 50521	General safety requirements for connectors, switches, circuit breakers (AC/DC): a) Low-voltage Switchgear and Control-gear, Part 1: General rules b) Low-Voltage Switchgear and Control-gear, Part 2: Circuit Breakers c) Low-voltage switchgear and Control-gear, Part 3: Switches, disconnectors, switch-disconnectors and fuse-combination units d) EN 50521: Connectors for photovoltaic systems – Safety requirements and tests
IEC 60269-6	Low-voltage fuses - Part 6: Supplementary requirements for fuse-links for the protection of solar photovoltaic energy systems
Surge Arrestors	
IEC 62305-4	Lightening Protection Standard
IEC 60364-5-53/ IS 15086-5 (SPD)	Electrical installations of buildings - Part 5-53: Selection and erection of electrical equipment - Isolation, switching and control
IEC 61643-11:2011	Low-voltage surge protective devices - Part 11: Surge protective devices connected to low-voltage power systems - Requirements and test methods
Cables	
IEC 60227/IS 694, IEC 60502/IS 1554 (Part 1 & 2)/ IEC69947	General test and measuring method for PVC (Polyvinyl chloride) insulated cables (for working voltages up to and including 1100 V, and UV resistant for outdoor installation)
BS EN 50618	Electric cables for photovoltaic systems (BT(DE/NOT)258), mainly for DC Cables
Earthing /Lightning	
IEC 62561 Series (Chemical earthing)	IEC 62561-1 Lightning protection system components (LPSC) - Part 1: Requirements for connection components IEC 62561-2 Lightning protection system components (LPSC) - Part 2: Requirements for conductors and earth electrodes IEC 62561-7 Lightning protection system components (LPSC) - Part 7: Requirements for earthing enhancing compounds
Junction Boxes	
IEC 60529	Junction boxes and solar panel terminal boxes shall be of the thermo-plastic type with IP 65 protection for outdoor use, and IP 54 protection for indoor use
Energy Meter	

IS 16444 or as specified by the Discom	A.C. Static direct connected watt-hour Smart Meter Class 1 and 2 — Specification (with Import & Export/Net energy measurements)
Solar PV Mounting Structure	
IS 2062/IS 4759	Material for the structure mounting

Payment Terms

1. 20% of bid price as advance signing the order and submission of invoice along with Bank guarantee. The supplier shall be required to submit an equivalent collateral with GIZ for the same. The Bank guarantee must be valid for a minimum period of 9 months from the date of signing the Purchase Order with winning agency.
2. 20% after pre-dispatch inspection and sharing the transportation receipt/bilty.
3. 40% after delivery of all equipments and set up, installation report including photos and documents.
4. 20% after project commissioning report, successful trail and invoice submission.

Submission of Bids:

The tender documents duly completed should be submitted with subject line on mail as -
Tender for Design, supply, installation, testing, and commissioning of a 100kWp on-grid pole mounted PV plant on Tea farms in Kerala for Kerala State Electricity Board Limited (KSEBL), RFQ Nr. 91181089

- The bidders must quote for all the equipment in Price submission sheet for under respective LOTs. In case of partial quoting of items, the bid shall be rejected.
- The agency is requested to quote inclusive of packing, loading, transportation, unloading costs in the financial format.
- Bidders are requested to send the Technical and Commercial proposal in **separate attachments** (financial & Technical) in pdf format, in a single mail/multiple emails along with all supporting documents in a compressed folder not exceeding file size of **20 MB** in total. Files/Folder more than 20 MB of size will not be delivered in the above-mentioned email ID's resulting in non-submission of the bids.
- The bidders can submit the proposal(s)/zip folders either in one email or two emails, based on the file size/bandwidth of folders.
- Uploading of bids is prohibited on open sources like **google drive, drop box etc.** bidders submitting their bids on these platforms shall be immediately **disqualified**.
- In case the bid is not delivered in the **qn_quotation@giz.de** email, due to any technical glitch or for any other reasons, it would be entirely GIZ's discretion, whether to seek the bid again from the bidder or not, therefore it is imminent to keep read receipt or delivery receipt of all submission for reference.

Price Submission

- The price quoted should be exclusive of taxes (GST) and tax rate should be clearly indicated “**Price Sheet**” – **Annexure- D**” and any such other levies/ taxes that may be clearly defined. If there is no mention of taxes in the price bid, it will be presumed that your rate is inclusive of taxes.
- The financial proposal/technical specifications must be on company letter head duly signed and stamped by the authorised signatory with a covering letter, mentioning complete details/coordinates of company.
- The financial proposal must also mention the following:
 - Schedule and timelines for supply and installation
 - Warranty/Guarantee of equipment.
 - GST must be indicated separately with GST rate.
 - Payment terms if different from the GIZ proposed payment terms.
 - Freight/Packing/delivery charges (if any) must be mentioned separately.
- Any claims of non-receipt of bids/pre-bid queries shall not be considered later in case the bidder fails to produce the delivery receipt of their bids/pre-bid queries sent to the quotation id.

Minimum Eligibility Criteria for participation in tender process

Apart from submitting the technical proposal, the bidders must also submit the following eligibility documents within the technical bid.

Note: The supplier have to submit the documentary evidence for all the below given criteria's, failing to submit any of the below-mentioned documents will lead to disqualification of the bid.

S. No.	Particular	Document to be attached.
01	Company Registration	The agency must have a registered office in India with minimum experience of 03 years in field of in EPC of 10kW or more Solar system. (Mandatory)
02	Average Annual Turnover must be minimum of INR 80,00,000 (Eighty Lakhs only) in last three financial years.	CA Certificate (Mandatory) Computation of Income Tax for last three financial years ((Mandatory) Audited P&L Account and Balance Sheet for last three F.Y including UDIN no. of CA (Mandatory)
03	Client List	The company must provide client list of 5 medium / large size project with minimum value of 10 lakhs INR in the past 03 years having worked as EPC projects in India of more than or equal to 10kW PV system.

04	Working Experience	Prior work order/ purchase order will be attached for at least 05 companies demonstrating the similar nature of work undertaken in the past 03 years with minimum value of INR 10,00,000 (INR Ten Lakh each)
05	Legal Status	Incorporation Certificate and /or other legal registration documents as per the nature of business (Mandatory)
06	PAN, TIN, GST	Copy of PAN, TIN and GST certificates (Mandatory)
07	Bank details	Copy of Cancelled cheque along with bank details (Mandatory)
08	Organizational Profile	Organisation may submit standard brochure/profile of the organization including the client list for reference purpose (Desirable)
09	References	None
10	Quality Certifications	Any ISO, Quality or any Green certification – Desirable though not mandatory;
11	Ecological and sustainable parameters	Organisation should briefly elaborate the business practices adopted towards the sustainability initiatives and highlight the experience in Sustainable Development Goals (SDGs) (Desirable, but strongly recommended to provide considering GIZ's overall commitment to sustainability initiative, especially SDGs 2030)
12	Declaration (Mandatory)	The company shall declare that no child labour is engaged in their organisation directly or indirectly (as per Annexure B)
13	Backlisting / Caution Listing (Mandatory)	Self-certification to the effect that the tenderer has not been blacklisted by any company or its contract has been terminated on account of poor performance (as per Annexure B)

Opening and Evaluation of Tenders

- The following Tenders will be **DISQUALIFIED**:
 - Bids/Proposals received after deadline of submission.
 - Bids/Proposals submitted by fax email IDs except specified address in tender documents.
 - Bidders not meeting eligibility/commercial suitability
- The Financial bids will be evaluated only in respect of those firms, which meet the technical bid criteria mentioned above by submitting all relevant documents and declaring child labour/blacklisting declaration.

- Based on the offers presented, the different proposals will be scored for excellence and final selection will be made of the best of the offers with lowest prices and as per the quality of make/brand recommended by GIZ in List of specifications.
- Any arithmetical error by the Bidder in pricing the List of Specifications/Annexure D or in the additions or in carrying forward subtotals to the summary or to the Tender will be corrected during the evaluation of the Tenders. In such cases the Tender sum will be adjusted accordingly, and the Bidder will be informed. It will be assumed that the unit price rates entered in the List of Specifications/ Annexure D, are correct.
- The bids will be complete in all respect and the bidder will submit all the relevant documents as described under this tender. If required, GIZ may solicit in writing further information from the bidder.
- GIZ does neither bind himself to accept the lowest Tender or any Tender, nor will he be responsible or pay for expenses or losses, which may be incurred by any Bidder with the preparation of his Tender.

Cancellation of Tendering Action

- The Tendering Action can be cancelled, if
 - (a) No Tender has been received which corresponds to the Tender Conditions,
 - (b) There have been substantial changes to the basis of the Tendering Action, or
 - (c) There are other serious reasons for such a cancellation.
- The Bidders will be informed without delay of the cancellation of the Tendering Action by the GIZ or his authorized representative and of the reasons for the same.
- This tender notification does not entail any commitment on the part of GIZ, either financial or otherwise. GIZ reserves the right to accept or reject any or all proposals without incurring any obligation to inform the affected applicant/s of the grounds.
- Cost incurred towards submitting the bids will in any case not be reimbursed/paid by GIZ.

Annexure A: Covering letter.

Covering Letter
(To be submitted along with the Proposal/bid on company's Letter Head)

M/s
.....
.....
.....
.....

To,

The Head of Procurement
GIZ India, GDCO Office
Vasant Vihar
New Delhi – 110 057

Subject: Offer in response to RFQ Nr. 91181089

Dear Sir/ Madam,

I/We the undersigned hereby offer to execute the scope of work and accordingly submit our offer in full compliance with terms & conditions of the bid.

The bid is being submitted as per the instructions mentioned in the tender documents.

Name of the Authorized signatory	
Mobile Number of the Authorized signatory	
Email Id	
Land line Number if any	
Office address	
CIN /Registration Number of Company	
Name of all Directors with DIN/PAN	

(Signature and stamp of Bidder)

Name:

Seal/Stamp:

Date:

Annexure B: Declaration by the bidder

Declaration by the bidder (to be submitted along with the bid)

I/We the undersigned (herein after referred to as Service Provider) having fully understood the nature of the work and having carefully noted the scope of work, specification, terms, and conditions, etc. as mentioned in the bid document do hereby declare that,

1. All the requirements of the bid document have been understood properly and accordingly agree with all provisions of the bid document and accept all risks, responsibilities and obligations directly or indirectly connected with the performance of the bid.
2. All the relevant information with regard to proper execution of the proposed work has been understood, with respect to the proposed specifications, its intended end use, availability of required materials and labour etc.
3. Are capable of executing and completing the work as required in the bid and are financially sound to execute the scope of work as per the work execution schedule. We have sufficient experience and are competent enough to perform the contract up to the satisfaction of GIZ. We also give the assurance to execute the scope of work as per the specifications, terms, and conditions on award of order.
4. We have no collusion with other bidders, any employee of GIZ or team engaged in executing the scope of work.
5. We have not been influenced by any statement or promises by any employee of GIZ or anyone from the team engaged by GIZ but only by the bid document.
6. We are familiar with all general and special laws, acts, ordinances, rules, and regulations of the Municipal, District, State and Central Government that may affect the work, its performance or personnel employed therein.
7. The submitted offer will remain valid for acceptance for 90 days from the last date of submission of bid.
8. All the information and the statements submitted with the bid are true to the best of knowledge.
9. We are not engaged in any kind of child labour nor any of our partners/suppliers indulge in any child labour activities.
10. We have never been debarred to undertake similar work by any Government undertaking/department, never been blacklisted or our companies' contract been terminated due to poor performance.
11. Mandatory grounds of exclusion – i.e., the bidder and/or its management has been involved in and convicted of an offence under:
 - a. the Indian Penal Code, 1860;
 - b. the Prevention of Corruption Act, 1988;
 - c. the Prevention of Money Laundering Act, 2002;
 - d. the Unlawful Activities (Prevention) Act, 1967;
 - e. the Immoral Traffic (Prevention) Act, 1956; or
 - f. any other applicable legislation in this regard.

In addition, the bidder is also debarred from the procurement process, if the bidder has committed any fiscal offence including but not limited to the following legislations, which offence/contravention has been established by judicial or administrative decision having final and binding effect:

- a. default in payment of tax under the Income Tax Act, 1961;
- b. default in payment of goods and service tax in compliance with the GST laws;
- c. default in payment of any tax in compliance with the applicable national, state or local legislation;
- d. default in payment of employee benefits under the labour and employee legislations such as provident fund, professional tax, labour welfare cess etc.; or
- e. default in compliance with the Foreign Contribution (Regulation) Act, 2010.”

Sub-point (a) and (b) above (concerning the Indian Penal Code, 1860 and the Prevention of Corruption Act, 1988) have been prescribed as grounds for debarment of a bidder, under rule 151(1) of the General Financial Rules, 2017 as well.

(Signature and stamp of Bidder)

Name:

Seal/Stamp:

Date:

Annexure C: Technical Criteria

- Technical specifications to be agreed signed and stamped.
- The agency must specify the brand/make and detailed technical specifications of each product.
- The company will declare that no child labour engaged in their organisation directly or indirectly.(As per Annexure- B).
- Self-certification to the effect that the tenderer has not been blacklisted by any company or itscontract has been terminated on account of poor performance. (As per Annexure-B).

Signature of the bidder

Name:

Seal / Stamp

Annexure D: Price bid submission

Separate excel sheet enclosed with the tender document.

Annexure E: Delivery Schedule

Overview

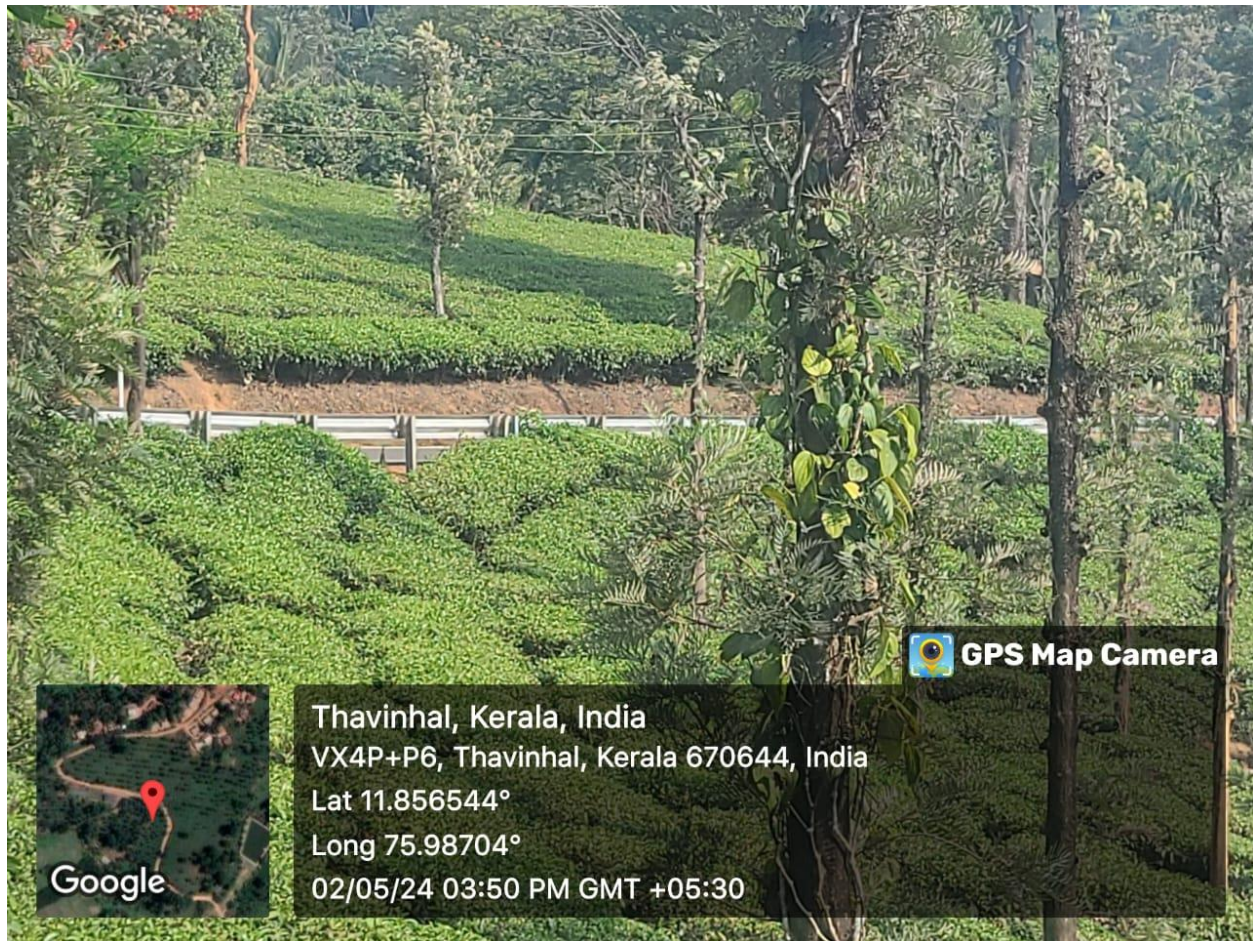
Sl. No	Tentative Delivery Schedule	Expected Plan (GIZ)	Plan Proposed by the bidder
1.	Date of Award of Contract	D0 (Day 0)	
2.	Inspection, Preparation and Design of the Project Site	D0 +15 days	
3.	Procurement and Delivery of Materials and Equipment	D0 +50 days	
4.	Setting up, commissioning, testing & trial of equipment at the Project site	D0 + 120 days	
5.	Submission of the system performance report to giz and KSEBL	D0 + 150days	

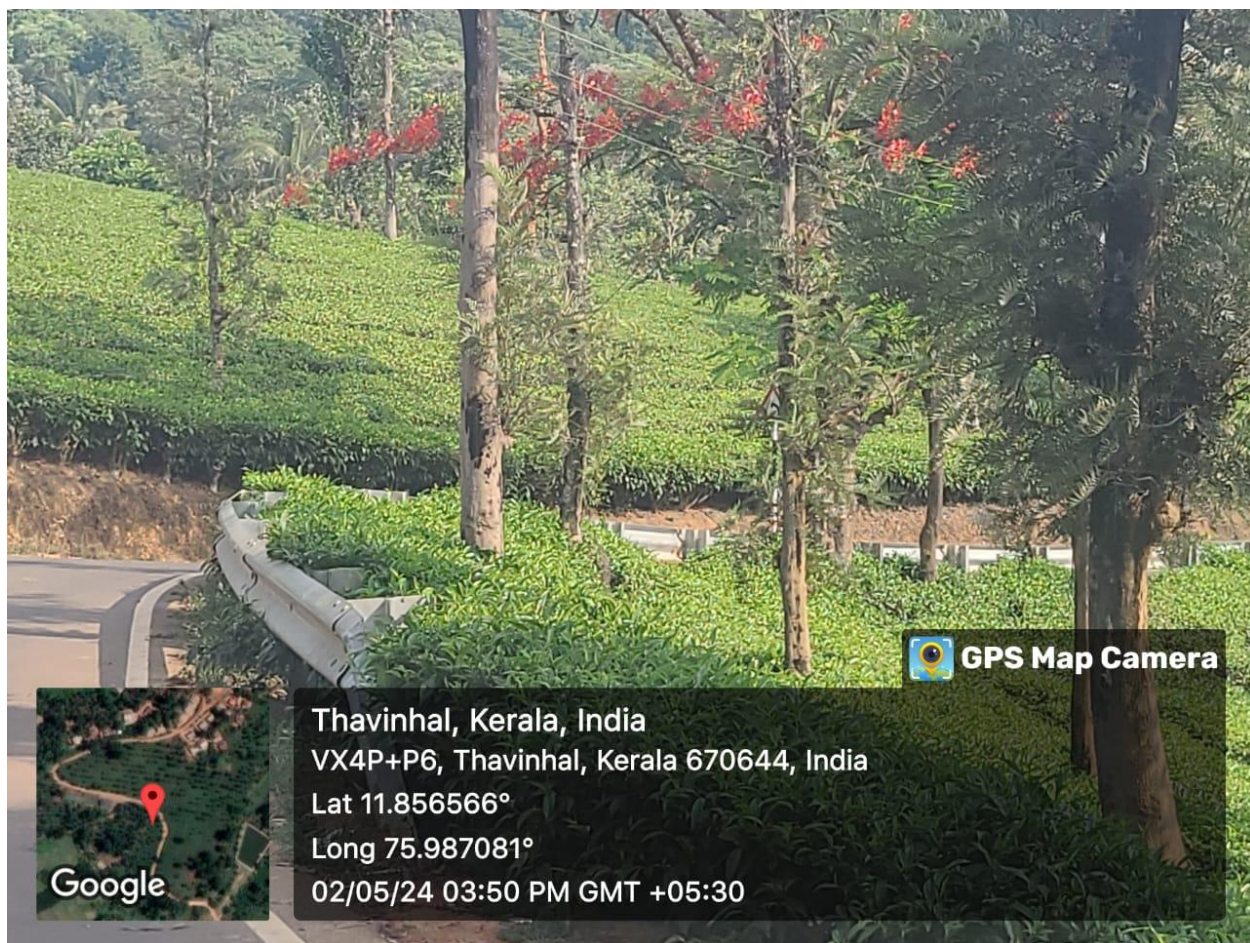
Name of the Supplier:

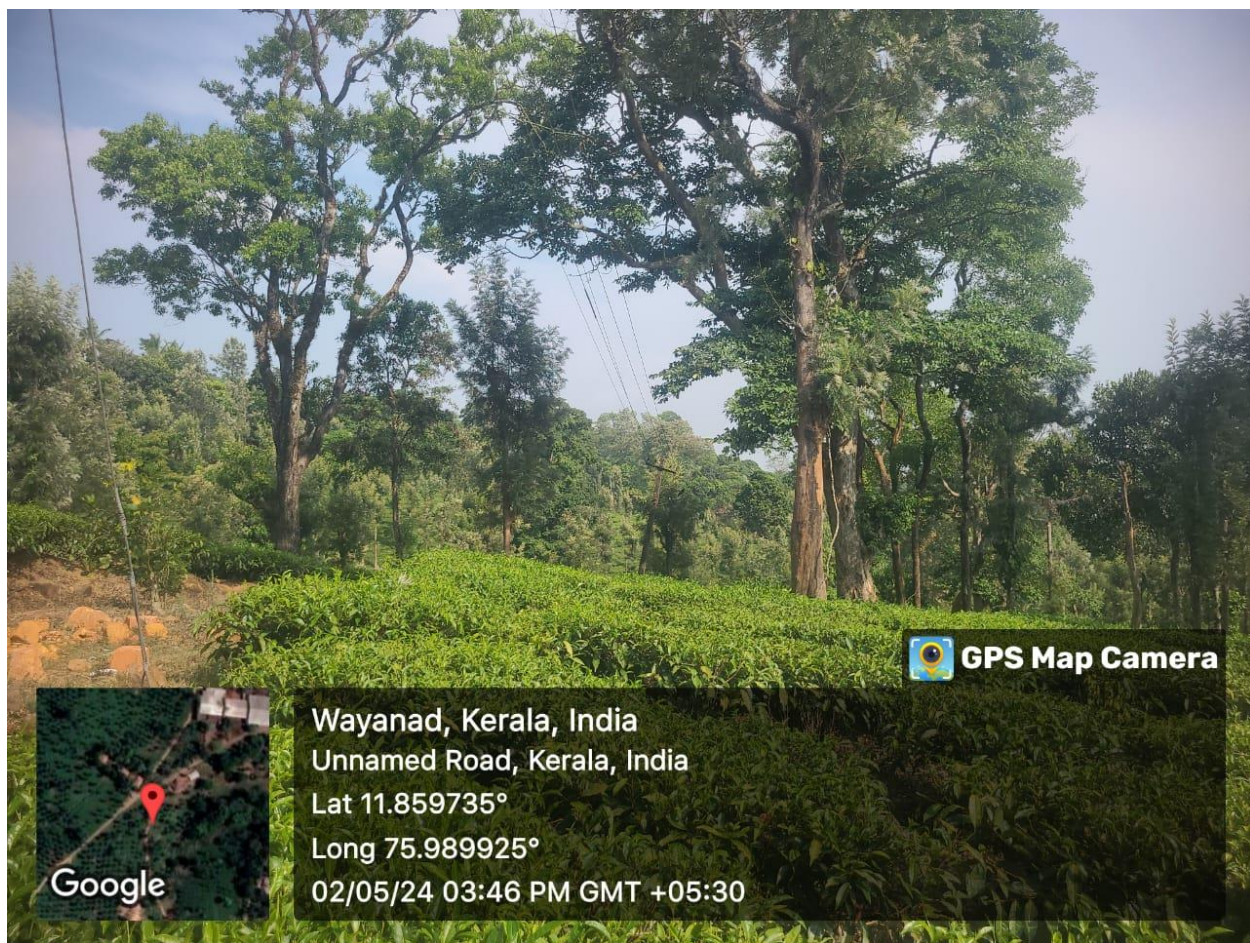
Signature & Stamp

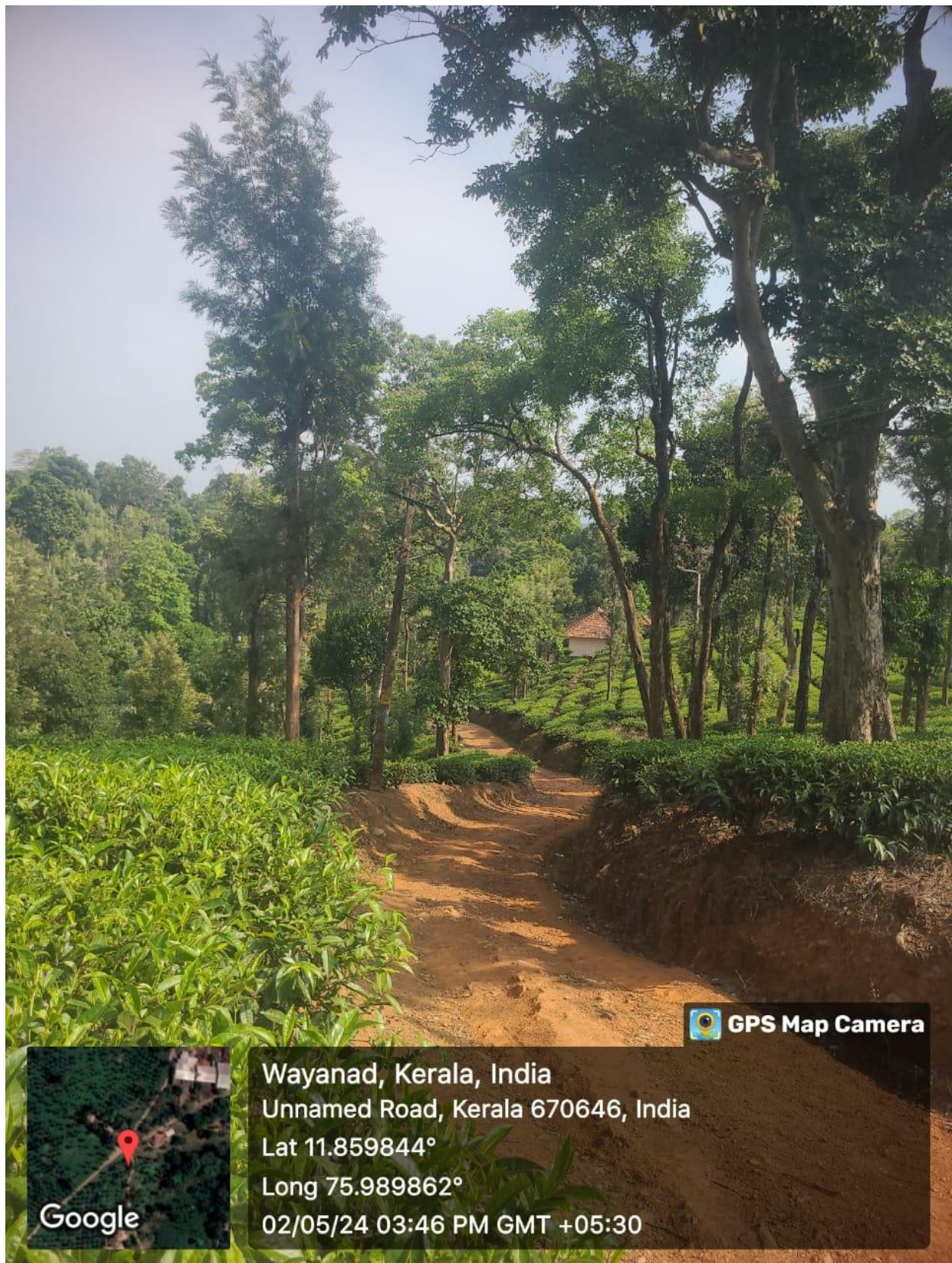
Date

Annexure F

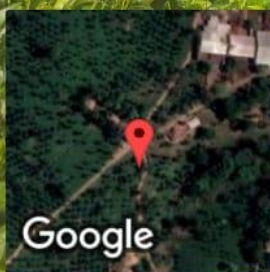








 **GPS Map Camera**



Wayanad, Kerala, India
Unnamed Road, Kerala 670646, India
Lat 11.859844°
Long 75.989862°
02/05/24 03:46 PM GMT +05:30



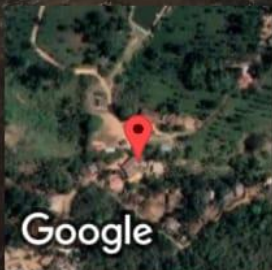
 **GPS Map Camera**



Mananthavady, Kerala, India
VX3Q+X5H, Pancharakolli, Mananthavady, Kerala 670645, India
Lat 11.854993°
Long 75.988005°
02/05/24 03:38 PM GMT +05:30



 **GPS Map Camera**



Mananthavady, Kerala, India

VX3Q+X5H, Pancharakolly, Mananthavady, Kerala 670645, India

Lat 11.854993°

Long 75.988005°

02/05/24 03:38 PM GMT +05:30