



Indian Institute of Technology Jodhpur

N.H. 62, Nagaur Road, Karwar, Jodhpur - 342030, Rajasthan (India)

☎ 0291-2801826 | ✉ office_enauto@iitj.ac.in

Website: Department: <https://www.iitj.ac.in/enauto> IITJ: www.iitj.ac.in

INDIAN INSTITUTE OF TECHNOLOGY JODHPUR

Request For Technical Information and Pro Forma Quotations

For Procurement of Single Solar Collector System

1. Introduction

The Indian Institute of Technology Jodhpur (IIT Jodhpur) intends to procure **Single Solar Collector System** for academic and research purposes.

Before initiating the formal procurement process, the Institute invites **Technical Information And Indicative Pro Forma Quotations** from eligible Original Equipment Manufacturers (OEMs) or their authorized representatives.

2. Purpose

The objectives are to:

- Obtain technical information from prospective OEMs/authorized representatives.
- Obtain indicative Pro forma quotations for estimating the procurement cost.

3. Disclaimer

This document is issued **only for obtaining technical information and indicative Pro Forma quotations**.

Submission of information under this proposal:

- shall **not** be treated as a financial bid;
- shall **not** constitute any commitment on the part of IIT Jodhpur to procure the equipment;
- shall **not** confer any right upon the participating firm for award of any future contract;
- shall **not** automatically qualify the responding firm for participation in any future tender.

The Institute reserves the right to modify the technical specifications, estimated cost, procurement methodology, or procurement timeline based on its requirements.

4. Equipment Details

- Name of Equipment: **Single Solar Collector System**
- Quantity: **One**
- Broad Functional Requirements: **Attached**

(The above requirements are indicative and may be revised after evaluation of the responses.)



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5. Eligibility Criteria

Interested firms should:

- Be an Original Equipment Manufacturer (OEM) or an authorized distributor/dealer.
- Have experience in supplying similar equipment.
- Have adequate installation and after-sales service support in India.

6. Information/Documents to be Submitted

The interested firms shall submit the following (*Annexure-I*):

1. Company Profile.
2. Details of the OEM.
3. Product Brochure/Catalogue.
4. Detailed Technical Specifications.
5. Compliance with the Broad Functional Requirements.
6. List of previous users/clients with installation reports
7. Details of Warranty.
8. Details of After-Sales Service Support.
9. Authorization Letter from OEM (where applicable).
10. Any additional technical information relevant to the offered equipment.

7. Pro forma Quotation

- Interested firms are requested to submit a Pro forma Quotation (*Annexure-II*) along with their Request For Technical Information and Pro Forma Quotations response. Indicative **Pro Forma** quotation in Indian Rupees (INR), including the cost of the equipment, essential accessories, taxes, duties, freight, insurance, installation, commissioning, training, and any other associated charges. Wherever applicable, the Annual Maintenance Contract (AMC) and/or Comprehensive Maintenance Contract (CMC) charges and spare parts shall be quoted separately as additional charges.
- Expected delivery schedule and other relevant technical and commercial information.

Important Note:

- The **Pro Forma** quotation is required only for cost estimation and budget planning purposes.
- The prices quoted shall be indicative/non-binding.
- The Pro Forma quotation shall not be treated as a financial bid.
- Submission of a **Pro Forma** quotation shall not confer any right or preference in the subsequent procurement process.

8. Presentation/Demonstration

The Institute may invite for a technical presentation or product demonstration. The date and venue shall be communicated separately.



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9. Submission :

Interested firms may submit their Proforma Quotations on or before the due date in sealed cover or through email (as applicable).

The envelope/email should be superscribed as:

"Request For Technical Information and Pro forma Quotations for Procurement of _____"

10. Important Dates

Activity	Date
Publication	17-07-2026
Last Date for Submission	26-07-2026
Technical Presentation (if required)	To be informed
Clarification Meeting (if required)	To be informed

11. General Terms & Conditions

1. This **Request For Technical Information and Pro forma Quotations** is issued only for obtaining technical information and **Pro Forma** estimates.
2. The Institute reserves the right to accept or reject any or all responses without assigning any reason.
3. Submission of an **Request For Technical Information and Pro forma Quotations** does not create any contractual obligation.
4. The Institute may seek additional information, technical clarifications, demonstrations, or presentations from any participant.
5. The Institute may modify the technical requirements based on the responses received.
6. The final technical specifications may be prepared by the User Committee after evaluating all **Request For Technical Information and Pro forma Quotations** responses.
7. The subsequent procurement, if any, shall be carried out through an appropriate procurement method in accordance with the GFR 2017 and applicable procurement rules.
8. Participation in this **Request For Technical Information and Pro forma Quotations** does not automatically entitle any firm to participate in or receive any preference during the subsequent tender process.

12. Contact Details

Name: Ashish Khinchi

Designation: Junior Technical Assistant

Department: Energy and Automotive Engineering

Email: ashishkhinchi@iitj.ac.in



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Annexure-I

Request For Technical Information and Pro forma Quotations Response Format

1. Name of the Firm:
2. Registered Address:
3. Name of OEM (if applicable):
4. Contact Person:
5. Email:
6. Phone:
7. Product Name and Model:
8. Brief Technical Description:
9. Compliance with Broad Functional Requirements:
10. List of previous users/clients with installation reports:
11. After-Sales Service Details:
12. Any Additional Features:
13. Remarks (if any).



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Annexure-II

Format for Pro forma Quotation

Sl. No.	Description	Amount (INR)
1	Indicative Pro forma quotation in Indian Rupees (INR), including the cost of the equipment, essential accessories, taxes, duties, freight, insurance, installation, commissioning, training, and any other associated charges.	

Warranty Period: _____

AMC/CMC Charges (after warranty): _____

Delivery Period: _____

Authorized Signatory

Name: _____

Designation: _____

Company Seal & Signature



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Technical Specification

Single Solar Collector System

General Specifications	
Equipment Type	Solar Powered Service Water Plant for laboratory applications
Application	Demonstration and performance evaluation of solar domestic hot water systems
System Configuration	Modular, floor-mounted laboratory trainer
Construction	Self-contained unit with rigid structural frame
Frame Material	Powder-coated mild steel or aluminium profile or SS Frame
Corrosion Protection	Powder coating with anti-corrosion treatment
Mounting	Lockable heavy-duty castor wheels
Operating Environment	Indoor/Outdoor laboratory Unit
Power Supply	230 V $\pm$ 10%, 50 Hz, Single Phase
Maximum Power Consumption	≤ 2.5 kW
Working Fluid	Water
Hydraulic Circuit	Closed loop forced circulation
Documentation	Complete operation, maintenance and experiment manuals
Single Solar Thermal Collector	
Collector Type	Flat Plate Solar Collector



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Absorber Surface Area	2-2.5 m ²
Absorber Material	Copper or Aluminium
Absorber Thickness	Minimum 0.3 mm
Absorber Surface	Selective coated absorber
Additional Absorber	Black coated absorber for comparison
Solar Absorptance	≥ 0.90
Thermal Emittance	≤ 0.20 (Selective coating)
Heat Transfer Tubes	Copper
Tube Connection	Laser welded/Brazed/Equivalent
Collector Cover	Low iron tempered solar glass
Glass Thickness	Minimum 3.2 mm
Glass Transmittance	$\geq 91\%$
Thermal Insulation	High-density mineral wool/PUF
Insulation Thickness	Minimum 40 mm
Collector Housing	Aluminium/Corrosion-resistant steel
Collector Tilt	Adjustable between 20°–60°
Wind Resistance	Suitable for Indoor/Outdoor operation
Maximum Operating Temperature	$\geq 120^{\circ}\text{C}$



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Maximum Operating Pressure	≥ 6 bar
Hydraulic Connection	Quick-connect fittings
Temperature Sensor Ports	Integrated
Hot Water Storage Tank	
Tank Type	Vertical insulated storage tank
Capacity	100-150 L
Material	SS304 or superior
Wall Thickness	Minimum 1 mm
Heat Exchanger	Internal copper spiral coil
Heat Exchanger Efficiency	High-efficiency coil design
Thermal Insulation	Polyurethane Foam (PUF)
Outer Casing	Powder-coated steel/Aluminium
Temperature Sensor Ports	Minimum Two
Drain Valve	Brass/SS
Maximum Operating Pressure	≥ 6 bar
Maximum Water Temperature	$\geq 95^{\circ}\text{C}$
Hydraulic Circuit	
Circuit Type	Closed loop forced circulation



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Pipe Material	Copper/Stainless Steel
Isolation Valves	Brass ball valves
Flow Control Valve	Needle/Ball valve
Expansion Vessel	Diaphragm type
Air Bleed Valve	Automatic/Manual
Pressure Gauge	Digital/Analog
Flexible Hose	High temperature reinforced
Pressure Rating	Minimum 6 bar
Circulation Pump	
Pump Type	Hot Water Circulation Pump
Motor Type	Brushless/DC/AC
Rating	80-100 W
Maximum Delivery Flow	2-5 m ³ /H
Maximum Head	4-6 m
Pump Body	Brass/Stainless Steel
Electric Auxiliary Heater	
Heater Type	Immersion Heater
Rating	1–2 kW



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Heater Material	Incoloy/SS
Voltage	230 VAC
Thermostat	Adjustable
Temperature Measurement	
Sensor Type	PT100 RTD
Quantity	Minimum 6
Range	0–120°C
Accuracy	±0.5°C
Resolution	0.1°C
Flow Measurement	
Sensor Type	Electronic Flow Meter
Measuring Principle	Turbine/Impeller/Magnetic
Flow Range	Suitable for operating conditions
Accuracy	±2%
Digital Output	Required
Solar Radiation Measurement	
Sensor Type	Pyranometer or Solar Irradiance Sensor
Measuring Range	0–1500 W/m ²



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Accuracy	$\pm 5\%$
Spectral Range	300–2800 nm
Response Time	≤ 5 s
Artificial Light Source	
Description	- Artificial light source, comprising 2 or 3 vertical rows of 4 halogen lamps - Halogen lamps with adjustable inclination angle
Power Rating	Each halogen lamp 1000 W
Electric Supply for Light Source	400V, 50Hz, 3 phases 400V, 60Hz, 3 phases 230V, 60Hz, 3 phases
Data Acquisition System	
DAQ Type	PC-based
Interface	USB/Ethernet
Software	Windows 10/11 Compatible
Live Data Display	Required
Data Logging	Automatic
Graphical Display	Real-time
Sampling Interval	User selectable
Export Format	CSV/Excel