

Format for submission of project proposal for installation of Concentrating Solar Thermal (CST) Technology based systems for process heat/ community cooking/ cooling applications

– For MNRE subsidy –

1	Name of establishment (Complete postal address)					
	Telephone/fax number					
	Mobile					
	E-mail					
2	Type of Industry/Institution					
3	Profit /Non-profit organization					
4	Information on proposed CST technology					
4.1	Type of CST Technology along with kind of tracking (Single axis / Dual axis/Non-imaging Concentrators)					
4.2	Average DNI at the installation site (kWh/m ² /day) - Please note that the monthly DNI & GHI profiles must be included in the DPR (Detailed Project Report)					
4.3	No.	Type of Reflector/ collector	Collector size (m ²)	No. of Concentrators / dishes	Estimated cost as given by supplier (₹)	
5	Requirement of application (Cooking, Process Heat / Cooling or any other applications*) <i>*In case of other applications, please state it clearly</i>					
6	Heat required for application in the form of Steam/ hot air/pressurized hot water/ Thermic oil/ any other*: <i>*In case of other fuels, please state it clearly</i>					
7	Existing arrangement for supply of thermal energy: (Boiler/LPG or PNG burners/any other)					
8	Present fuel consumption: i) per day ii) per year					
9	Energy related parameter					
9.1	Load Requirement					
	Steam application (Process description)					
	Requirement of Steam (kg/day) or pressurized hot water (ltr/day)					
	Pressure (bar)					
9.2	Temperature (°C)					
	Details of Steam Boiler					
	Type of fuel used					
	Fuel consumption (ltr/day)					
	Cost of fuel (₹/ltr)					
	Total Capacity/flow rate (TPH)					
	Operation hours (hrs/day)/ Working cycle					
Boiler output graph						
Season variation						
9.3	Details of Feed water Tank					
	Capacity (m ³)					
	Feed water temperature (°C)					
	Feed water heating scheme					

10	Shadow free land area available at terrace/ ground & identified for solar system (m ²)	
11	Distance of utility point from solar installation site (in meters)	
12	Whether the proposed CST system will be integrate with existing boiler/ heating arrangement or it will be a totally new system (If it is a new system, balance of components other than CST needs to be mentioned, if the space is not sufficient to cover the information please use the separate sheet)	
13	Report on feasibility study/ DPR ^{1,2} prepared for installation of CST based system with details of consultant/ manufacturer is attached <i>Note: DPR should contain a detailed outlay of the proposed system.</i>	[] Yes/ [] No
14	Name and address of supplier identified for installation of the system, <i>Note: The supplier should be approved by MNRE to avail the subsidy support.</i>	
15	How the beneficiary decided supplier: (Quotation/ tender basis/ Detail valuation with channel Partners/ Discussion with consultants)	
15.1	Installer/Supplier details if decided already.	
	Full Address with contact details	
	Empanelment details	
	Details of systems installed so far with MNRE support	No. Size (m ²) Applications
	Details of systems installed so far without MNRE support	No. Size (m ²) Applications
16	Expected outcome from proposed installation	
	Average heat delivery per day (kCal)	
	Fuel savings with prevailing fuel/ LPG (ltr or kg)	
17	Component – wise estimated cost breaks up:	
	Solar system (CST)	
	Balance of system	
	Total Project cost	
	AMC, if any	
18	MNRE support sought as per the scheme provisions	
19	Balance cost of system which will be met by the beneficiary (Commitment letter of their contribution as applicable to be enclosed)	
20	System test report tested by NISE/ UoP (if yes, please note that the system test report is valid for 2 years - Copy to be enclosed)	
21	Commitment for Online monitoring of CST project, if the project size is more than 1000 m ² collector area.	
22	Project is implemented in ESCO mode (Yes/ No) If yes, details as per below to be provided ¹	
23	Time required to complete the project after date of sanction	
24	Commitments from the beneficiary	

	<ul style="list-style-type: none"> i. We will bear the remaining cost apart from the MNRE support as per details given above. ii. We will regularly use and properly maintain the system and submit quarterly performance report for a minimum period of one year from the date of installation and will not dismantle the system at any stage without prior written permission of MNRE. iii. We will take Annual Maintenance contract for a period of at least 5 years after completion of the warranty period from manufacturers or get our people in-depth trained for successful functioning, operation and maintenance (O&M) of the systems at site from supplier/installers.
--	---

Date:
Place

Signature
Name & Designation
Organization/ Company's Seal

To,
Shri. H.R Khan,
Advisor (CST Division)
Ministry of New & Renewable Energy
Government of India
Block No. 14, CGO Complex
Lodhi Road, New Delhi-110003
Email id: hrkhan@nic.in
Tel Fax: 011-2436 8917

¹ Information required for projects to be implemented in ESCO mode

DPR prepared should contain the MoU signed between various stakeholders covering the following:

- i. Performance guarantee, performance measuring & fuel saving techniques.
- ii. Details of investment to be made by ESCO, beneficiary/ any other in beginning.
- iii. Whether equity of various parties or availing loans. If loan, details to be provided with name of FI providing loan. Details of any other arrangement also to be provided.
- iv. Monthly/ quarterly installment to be paid by beneficiary or savings.
- v. Time period of agreement with the beneficiary.
- vi. Beneficiary's commitment to bear minimum 20% of project cost in beginning (if not, the reasons, thereof)
- vii. Cost economics and viability of the proposal.
- viii. Ownership of system to be installed, and commitment that the system will not be dismantled without written permission from MNRE.

² MNRE-IREDA-UNIDO Loan Scheme

The DPR must be prepared in the required format available at MNRE/ UNIDO websites to apply for soft loan for a CST project, and the application along with DPR should be submitted to IREDA with information to UNIDO.

Details and formats for the loan scheme are available at: <https://open.unido.org/projects/IN/projects/130149> (under the Tab Advocacy Material).

Please contact: National Project Manager (Solar), UNIDO, UN House, 55 Lodhi Estate, New Delhi 110003 (T; +91.11.2460 7113; E: a.k.misra@unido.org).