

**ADDITIONAL SUPPORT AVAILABLE FOR CST BASED SYSTEMS
UNDER UNDP-GEF CSH PROJECT**
(Slightly modified on 23.03.2015)

A. Project size 250 sq. m. & above

(Except of projects with dual axis tracked dishes having moving focus where the lower limit will be 150 sq.m.)

Demonstration Projects: 15% of MNRE benchmark cost to a maximum of Rs.75 lakhs (Restricted to a few projects for support above Rs. 30 lakhs)

Replication projects: Rs. 5 lakhs for projects up to 500 sq. m. and Rs. 10 lakhs for projects above that.

Criteria of consideration as Demonstration / Replication project

- Replication projects : Systems based on Scheffler (16 sq. m. single axis tracked) dishes for all applications
- Demonstration projects: All other projects with CSTs of different sizes for various applications in different sectors/ type of establishments. Replication projects with newer applications or improved version of existing technologies and innovative ideas leading to improved performance/ durability/ user friendly techniques or reduction in cost etc will also come under this category

Criteria for support to Channel Partners/ manufacturers for Demonstration projects

- Single technology of a particular size/design for all applications: Maximum 5 projects of one application but in different sectors/ type of establishment.
- Above criteria will be followed for other technologies of different designs/sizes
- After this all such projects will come in replication category.
- Technologies to be supported : Paraboloid dish, Arun dish Scheffler (16 sq. m. dual axis tracked), Scheffler dish (above 16 sq.m. size), PTC (Non evacuated receiver), PTC (Evacuated receiver), LFR, Non-Imaging concentrators

Maximum CST area to be supported till June 2015

Demonstration Projects

- Total: 15,000 sq. m.
- To each Channel partner / manufacturer on CSTs of all sizes/ designs : 5,000 sq. m. (Channel partner) & 2500 sq. m. (Other manufacturers) or less if 15,000 sq. m reached in total by June, 2015 on first cum first basis. (Date may be extended on seeing the response). After June 2015 all projects of above 150-250 sq. m. may be considered as replication projects subject to review by PEC. No project may be taken as Demonstration project.

Replication projects: No limit

Use of available support

The support is available to share owner's expenses for following which otherwise also is to be done in MNRE programme to avail the subsidy:

Demonstration projects

- Preparation of Feasibility report for project with CST area below 750 sq. m. and Detailed Project Report (DPR) for project above 750 sq. m.
- On line performance monitoring of the system with following instruments & equipment installed:

- ✓ 2 Pyranometers with & without shading ring for measuring the DNI
 - ✓ Pressure transducer to measure pressure of steam/pressurized fluid
 - ✓ Temperature sensors (RTDs) for measuring inlet and outlet temperatures
 - ✓ Steam/ thermic fluid/hot water flow meter to measure the flow
 - ✓ Sim based data logger for seeing performance data through remote monitoring
- Operation & maintenance of the system (AMC for atleast 4 years after completion of warranty period will be necessary except in cases where some amount is earmarked by the organization for keeping the system functional & well maintained)

Replication projects

- Providing performance & fuel savings data on regular basis with essential equipment installed as per below:
 - ✓ Pressure transducer to measure pressure of steam/pressurized fluid
 - ✓ Temperature sensors (RTDs) for measuring inlet and outlet temperatures
 - ✓ Steam/ thermic fluid/hot water flow meter to measure the flow
- Operation & maintenance of the system (AMC for atleast 2 years after completion of warranty period will be necessary except in cases where some amount is earmarked by the organization for keeping the system functional & well maintained)

Part support could be utilized for installation of system subject to meeting the above requirements

Approval/ Sanction of GEF support

An Approval letter/ Sanction will be issued for additional UNDP- GEF support based on following received in PMU:

- i) In- Principle approval/ sanction letter issued by MNRE
- ii) Copy of project proposal in prescribed format requesting for MNRE subsidy & UNDP support by the beneficiary

Release of Support to beneficiaries/ manufacturers

50% of the sanctioned/ approved support in advance to beneficiary based on submission of BG of the same amount within a period of 6 months from the date of award letter (validity of BG will be for one year if the installation has started or else it will be for 2 years). It could be released to manufacturer also if beneficiary desired so with consent letter received from him.

In case BG is not submitted, this amount will be released on getting i) copy of PFR/DPR, ii) 3rd party inspection report with commissioning certificate, iii) details of instruments installed with on-line performance monitoring made available at MNRE for Demonstration projects/ requisite data provided for replication projects and iv) copy of AMC/ commitment on money earmarked for O&M. BG also to be released on getting these documents, if submitted.

Balance to be released to the beneficiary based on 6 months satisfactory performance of the system from the date of 3rd party inspection done with receipt of all above documents (i to iv)

B. Project size below 250/ 150 sq. m. (refer above) but not below 64 sq. m. of Scheffler dishes & 45 sq. m. of other concentrators (To be considered as replication projects)

Rs. 2 lakhs for each project to the beneficiary for providing i) performance & fuel savings data on regular basis and ii) Operation & Maintenance of the system. Based on the sanction issued, release could be made in advance against BG valid for one year or else it will be released after one year of

commissioning of the system on receiving performance & fuel saving data. BG also to be released on getting this data, if submitted.

The support will also be available for projects below 64/ 45 sq. m. area to SNAs/ beneficiary by combining the CSTs area, if there are more than one such projects sanctioned in the State through tendering or beneficiary's premises respectively

C. ESCO mode projects

10% of MNRE benchmark cost to a maximum of Rs. 15 lakhs for each project in addition to above. Support available for all the above projects (demonstration/ replication/other projects) may be combined with this support and provided to implementers, if the projects are done in ESCO mode. Copies of Detailed Project Report and MoU signed with beneficiary on stamp paper would be required with following included:

- Performance guaranty, performance measuring & fuel saving techniques
- Details of investment to be made by ESCO, beneficiary/ any other in beginning
- Whether equity of various parties or availing loans. If loans, details to be provided with name of FIs providing loans
- Monthly/ quarterly installment to be paid by beneficiary on savings (Minimum 7 years)
- Time period of agreement with beneficiary
- Beneficiary's commitment to bear minimum 20% of project cost in beginning (If not, the reason there of)
- An Affidavit that system installed will not be dismantled without the permission of MNRE

D. Repair & Renovation Projects

20% of approved project cost to a maximum of Rs. 15 lakhs for 5 years old systems subject to the condition that equal amount is spent by the beneficiary. A proposal covering following information in prescribed format (available on MNRE website: www.mnre.gov.in) would be required to be submitted for availing this support:

1. Complete address of establishment.
2. Type & size of solar technology installed
3. MNRE sanction letter No & Date with approved cost of the system
4. Place of Installation
5. Date of commissioning of the system
6. Name of manufacture who installed the system
7. Application for which the system is being used
8. Since when the system is lying non-functioning?
9. Reasons for lying non-functioning
10. Whether manufacturer who installed the system was approached? If yes, the response.
11. Major components requiring repair/ replacement
12. Details of supplier identified for repair of system
13. Budget estimate on repair of system (Details to be provided in a separate sheet with quotation from supplier)
14. Budget sought from UNDP-GEF project as per scheme
15. Commitment share from beneficiary to be indicated in covering letter
16. Expected date of getting the system repaired
