

NEW SCHEME ON DEMONSTRATION AND APPLICATION OF SOLAR THERMAL TECHNOLOGIES FOR SOCIAL SECTOR

HAREDA is implementing a scheme on popularising the use of solar water heating systems with an objective **to conserve electricity and other conventional fuels in water heating applications**. Realising the need of the hour, the State Govt. has also made the use of solar water heating systems **mandatory** in industries where hot water is required for processing, hospitals and Nursing Homes, Govt. Hospitals, Hotels, Motels and Banquet Halls, Jail barracks, Canteens, Housing Complexes set up by Group Housing Societies/Housing Boards, all Residential buildings built on a plot of size 500 sq.yds. and above falling within the limits of Municipal Committees/Corporations and HUDA Sectors, all Govt. buildings, Residential Schools, Educational Colleges, Hostels, Technical/Educational Institutes, District Institute of Education and Training, Tourism Complexes and Universities etc. **HAREDA has been declared as an approved source for supply and installation of solar water heating systems in the State to ensure installation of optimally designed quality systems as per the specifications.**

The cost of installation of solar water heating system ranges from Rs. 250/- per liter to Rs. 170/- per liter depending upon the capacity of the system. The larger the size the less will be the cost of the system. A solar water heating system of 100 lpd capacity can save upto 2200 unit of electricity annually depending upon its use. Thousand no. of 100 lpd capacity systems contribute to 1 MW peak load shaving. In addition to this, a 100 lpd system also avoids emission of 1.5 tonnes of CO₂ annually. **The payback period of a solar water heating system is approx. 3 to 5 years.** The solar water heating systems technology is a mature technology and has already established its market in the commercial sectors. However, the penetration of this technology is not to the desired level in the social sectors.

HAREDA has initiated a programme for providing 100% financial assistance solar water heating systems in socially oriented schemes of the Govt. like working women hostels, all the Primary Health Centres & Community Health Centers, Orphanages, Deaf and Dumb Centers, Crèches, Old age homes, Bal Greh, Nari Niketans, Bal Niketans, Sports Hostels, Charitable Institutes (working for last three years) , Govt. Hospitals and other Govt. controlled buildings or buildings run/ supported by Govt. during the 11th FYP period. The system will be installed on 100% grant basis but the beneficiary institution will have to deposit 10% of the system cost with HAREDA towards maintenance of the system.

In order to implement the scheme, following methodology will be adopted:

1. Give wide publicity to the scheme through press releases and press advertisements.
2. Invite proposals from the social sector organizations through the ADCs.
3. **The eligibility criteria** for the social organization to take benefits of this scheme is as under:
 - i) The institution must be a **registered organization** working in the social sector for **at least past three years**.
 - ii) Institution must be a non profit organization. **Last three years profit-loss statement** duly audited by a chartered accountant is required to be submitted.
 - iii) The institution must be run by the State Govt./GOI or should have received financial assistance/support within the last three years from the State/Central Governments. A certificate from the competent authority is required to be submitted.
 - iv) Sports Hostel, Govt. Hospitals and Govt. Controlled Buildings like **Hostels for the scheduled caste or weaker section students** will also be eligible.
4. On receipt of a proposal from the eligible institutes, the ADC office will carry out the survey of the site for **verification of eligibility and assessment of the hot water** in the premises of the institution and shall forward the same to the Director, HAREDA in a **time bound manner** for approval.
5. The proposals received complete in all respects will be examined by the office of the Director, HAREDA and approval will be granted **on first come first serve basis**.
6. The decision of the Director, HAREDA will **be final and binding**.

Documents required:

1. Registration certificate of the institution
2. **Last three years profit-loss statement** duly audited by a chartered accountant
3. Document in support of Government aid received by the institution
4. A certificate from the competent authority certifying that the institution is a social sector institution
5. Application form in the prescribed format
6. Site clearance certificate from the concerned PO/APO
7. DD for 10% of the system cost.

FORMAT FOR SUBMISSION OF PROPOSAL FOR INSTALLATION OF SOLAR WATER HEATING SYSTEM IN SOCIAL SECTOR ORGANIZATIONS.

1. **Name of the institute** :
2. **Complete address with phone no.s** :
3. Contact person :
4. Activities of the institution :
5. **Details of registration** :
 - a) registered with
 - b) registered since(enclose an :
attested copy of the registration certificate)
 - c) enclose last three years :
profit loss statements duly audited by CA.
 - d) Details of financial assistance :
received during the last three years
(Please attach letters from the
Concerned Govt.Dept. /agency).
6. **Details of the building where the solar water heating system is proposed to be installed**
 - a) Building owned by :
 - b) No. of rooms :
 - c) No. of inmates :
 - d) No. of bathrooms :
 - e) whether foods is cooked : Yes/No. If yes, for _____no. of persons.
 - f) type of the building : Pucca house/Kucha house
7. Details about the site :
 - a) Size of the roof available :
 - b) Shadow free or not :
 - c) load bearing capacity of the :
roof(should be atleast 50 kg per sq.meter)
 - d) Cold water pipe connection :
available on roof
 - e) Electricity available or not :
 - f) Electricity bill per month for last :
one year
8. Proposed use of the SWHS :
9. **Undertaking by the Institution** :
 - a) We will not dismantle the system at any stage without prior written permission of HAREDA
 - b) We undertake to deposit 10% of the system cost i.e; Rs...../- only with HAREDA towards maintenance of the system at a later stage. A DD bearing no.....dated.....for Rs...../- only drawn on(Bank) is enclosed.
 - b) 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 through ADC office.

Signature with name and seal of
Head of Beneficiary Organization

**FORMAT OF SITE CLEARANCE/ VERIFICATION REPORT TO BE
SUBMITTED BY PO/APO**

1. Proposed site of installation :
2. Site inspected on :
3. Details of the user institution :
 - a) Name of the institution :
 - b) Head of the institution with address :
 - c) Site incharge / Contact person :
 - d) Telephone nos/fax :
 - e) Acitivities of the organization :
4. Verification of eligibility :
5. Availability of cold water on roof :
6. Proposed use of hot water :
7. Shadow free space on roof : Available or not Available
(approx. _____sq.m.)
8. Load bearing capacity of the roof :
9. Electricity : Available/Not available
10. Approx.length of piping required :
 - i) Hot-__NB : -----m.
 - ii) Cold__-NB : -----m.
11. Availability of skilled worker for Maintenance of the system :
12. **Final comments on site** :

Recommended for installation of solar water heating system of _____ lpd capacity/Not recommended. Proposal examined and all documents attached.

Project Officer/Asstt.PO

**JOINT COMMISSIONING REPORT OF SOLAR WATER HEATING SYSTEM
INSTALLED UNDER SOCIAL SECTOR DEMONSTRATION SCHEME OF SOLAR
WATER HEATING SYSTEMS**

Certified that a solar water heating system ofliter per day capacity has been installed at(Name of the institute)City.....district.....by M/S..... on(date).The system is as per BIS/HAREDA/MNRE specifications. The system has been checked for its performance on(date) and it is working satisfactorily.

Signature of the beneficiary
With name and date

Signature of the rep. of supplier
with name seal and date

RATE CONTRACT

**Haryana Renewable Energy Development Agency
(Department of Renewable Energy, Haryana)
SCO-48, Sector-26, Chandigarh- 160019.**

Telephone : 0172- 2790918, 2790117, 2791917
E-mail : hareda @ chd.nic.in
Fax : 0172- 2790928
Website : www.hareda.gov.in

Rate Contract No. HAREDA/2006-2007/ 4059- 63 Dated: 21-12-2006

To

1. M/s Suntech Solar Technologies,
Plot No. 170, Phase-I, Industrial Area,
Panchkula- 134113.
Contact No. 09888015446
2. M/s Inter Solar Systems (P) Ltd.,
Plot No. 901-A, Industrial Area
Phase-II, Chandigarh-160002.
Tel. No. : 0172- 5086113, 2655349, 2650901
Fax No. 0172-5086113
3. M/s Sunglow Enterprises,
286, Industrial Area, Phase-1,
Chandigarh- 160002.
Tel. No. : 0172-6611286.
4. M/s Suntime Energy Ltd.,
Corp. Office : C-123, Eltop Industrial Area, Phase-VIII
SAS Nagar, Mohali (Pb.)
Tel. No. 0172- 2236641, 2236642
Fax : 0172- 5097179
Head Office : E-3, Lajpat Nagar-II, New Delhi- 110024
Tel No. : 011- 29814822, 29814129
Fax : 011-29819444
5. M/s Surya Shakti,
739, Industrial Area, Phase-II
Chandigarh.
Tel. No. (F) 0172-2653299 (R) 0172-2795016
Fax No. 0172-771576

SUBJECT: RATE CONTRACT FOR SUPPLY, INSTALLATION AND COMMISSIONING OF SOLAR WATER HEATING SYSTEM IN THE STATE OF HARYANA VALID FROM 21-12-2006 TO 20-12-2007.

Reference : (i) This office tender enquiry No. HAREDA/2006/RC/SWH opened on 25.04.2006.

(ii) Your quotation submitted against the said tender enquiry followed by your subsequent last letter.

Dear Sir,

You are hereby informed that your above referred tender read with subsequent letter mentioned above for the stores specified in the schedule- A annexed has been accepted. This Rate Contract will be governed by the terms and conditions given in schedule-B . The rate contract and the schedules annexured here to shall be sole responsibility of this Rate Contract/ transaction.

2- This rate contract shall be valid from 21-12-2006 to 20-12-2007 for supply , installation and commissioning of solar water heating system (s) of various capacity, additional works and the AMC/during subsequent years after warranty period .

3- The other terms and conditions and specifications not mentioned in the schedule- B, shall be as per DNIT.

4- Please deposit security of the value of Rs. 40,000/- (Rs. 20,000/- in the form of bank guarantee valid for a period of 3 years and Rs. 20,000/- in the form of DD) immediately. The security will be refunded after 3 years from the date of commissioning of last executed project by the firm.

5- Please acknowledge receipt of this Rate Contract within 10 days from the date of issue by returning the second copy duly signed and stamped by authorized representative of your firm.

SCHEDULE ANNEXURED : (pages I – xii)

1. Schedule "A" - Description of Stores, Prices, Duties/ Taxes.
2. Schedule "B" - General Terms & Conditions of the Contract.
3. Schedule "C" - DETAILED TECHNICAL SPECIFICATIONS OF VARIOUS COMPONENTS OF SOLAR WATER HEATING SYSTEMS

Yours faithfully,

Asstt. Project Officer-I
For Director, Haryana Renewable Energy
Development Agency (HAREDA),
Chandigarh.

Schedule-A**DESCRIPTION OF STORES, PRICES, DUTIES/ TAXES****(1) Capacity –wise approved firms & rates of Solar Water Heating Systems**

Sr.No.	Capacity of the system	*Total cost including transportation, packaging, installation, commissioning, VAT / taxes/ duties etc. with 3 years guarantee	Name of the firm(s) approved
1.	100 LPD	Rs.21,900/-	M/s.Suntech Solar Technologies
2.	200 LPD	Rs.37,500/-	M/s.Suntech Solar Technologies
3.	300 LPD	Rs.54,000/-	M/s.Suntech Solar Technologies
4.	400 LPD	Rs.70,040/-	M/s.Inter Solar Systems Pvt. Ltd
			M/s.Sunglow Enterprises
			M/s.Suntime Energy Ltd.
5.	500 LPD	Rs.85,000/-	M/s.Inter Solar Systems Pvt. Ltd
			M/s.Suntech Solar Technologies
			M/s.Sunglow Enterprises
6.	600 LPD	Rs.1,02,200/-	M/s. Sunglow Enterprises
			M/s.Suntech Solar Technologies
			M/s.Suntime Energy Ltd.
7.	800 LPD	Rs.1,40,000/-	M/s.Suntech Solar Technologies
			M/s. Sunglow Enterprises
			M/s.Suntime Energy Ltd.
8.	1000 LPD	Rs.1,67,000/-	M/s.Sunglow Enterprises
			M/s.Suntech Solar Technologies
			M/s.Surya Shakti
9.	1500 LPD	Rs.2,40,120/-	M/s.Sunglow Enterprises
			M/s.Suntech Solar Technologies
			M/s.Surya Shakti

10.	2000 LPD	Rs.3,05,000/-	M/s.Sunglow Enterprises
			M/s.Suntech Solar Technologies
			M/s.Surya Shakti
11.	3000 LPD	Rs.4,55,000/-	M/s.Sunglow Enterprises
			M/s.Suntech Solar Technologies
12.	4000 LPD	Rs.6,00,000/-	M/s.Sunglow Enterprises
			M/s.Suntech Solar Technologies
13	5000 LPD	Rs.7,55,000/-	M/s.Sunglow Enterprises
			M/s.Suntech Solar Technologies

*The systems with 100 to 1000 LPD capacity are with electrical back up and 1500 LPD to 5000 LPD are without electrical back up.

(2) Approved Rates of additional works for all capacity of systems.

a) Cold Water Piping per running meter

(i)	15 NB	Rs. 80/-
(II)	20 NB	Rs. 120/-
(iii)	25 NB	Rs. 150/-
(iv)	32 NB	Rs. 225/-
(v)	40 NB	Rs. 290/-

(b) Hot Water Piping per running meter

(i)	15 NB	Rs. 200/-
(II)	20 NB	Rs. 300/-
(iii)	25 NB	Rs. 340/-
(iv)	32 NB	Rs. 400/-
(v)	40 NB	Rs. 450/-

(c) RCC/ cft Rs. 130/-

(d) Steel Structure per Kg Rs. 40/-

(e) Electric Wiring armoured per running meter

- | | | |
|------|---------|----------|
| (i) | 2.5 mm2 | Rs. 50/- |
| (ii) | 4 mm2 | Rs. 75/- |

(f) Taps

- | | | |
|------|-------|----------|
| (i) | 15 NB | Rs. 65/- |
| (ii) | 20 NB | Rs. 75/- |

AMC Charges (after expiry of guarantee period)

- | | | |
|------|----------------------------|--------------------|
| (i) | AMC charges with spares | Rs. 10/- per liter |
| (ii) | AMC charges without spares | Rs. 5/- per liter |