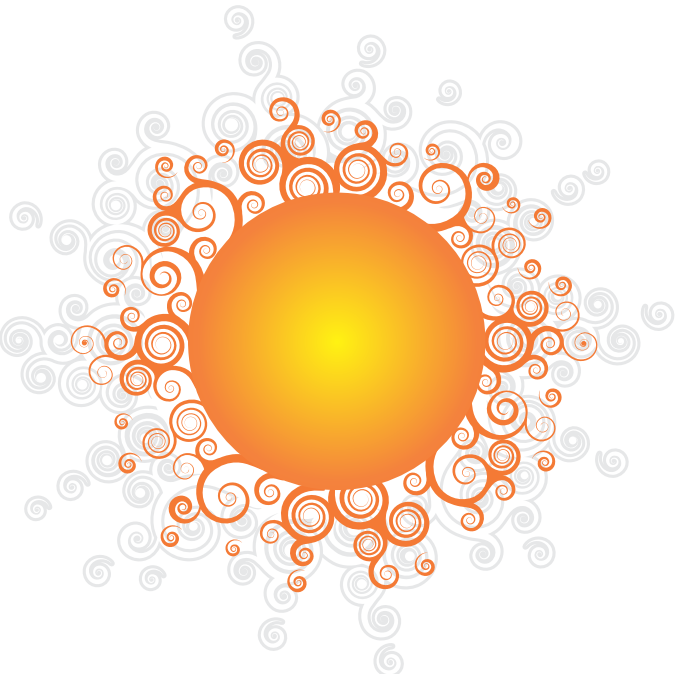
BRAHMA KUMARIS



Renewable Energy

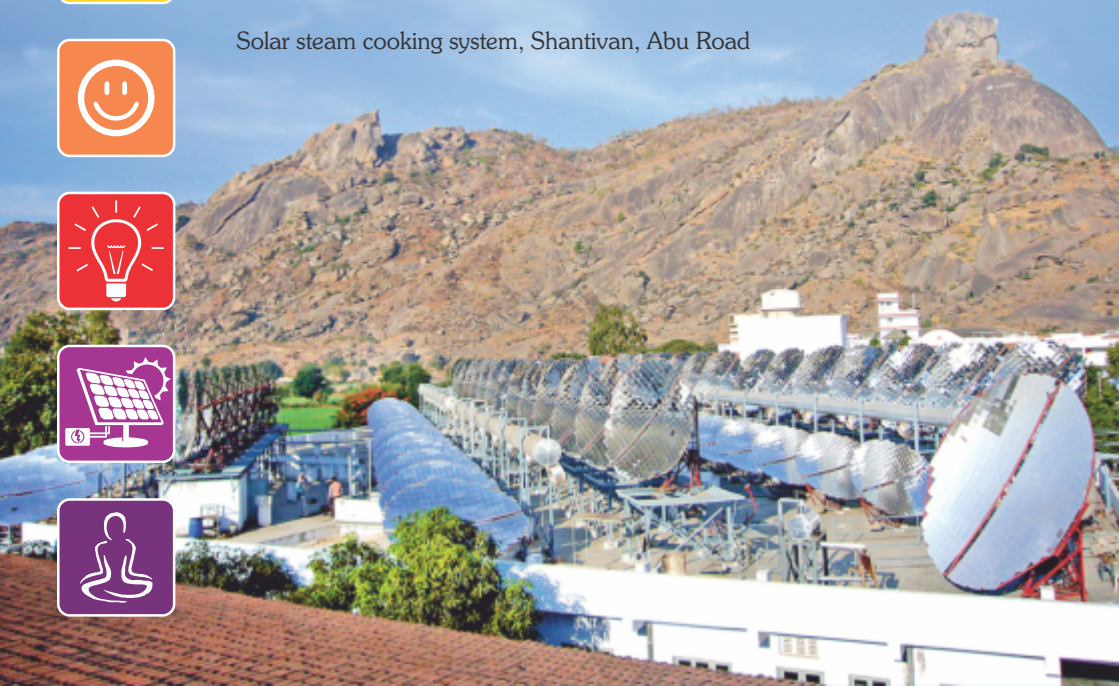
Creating
The Future We Want

Renewable Energy for a Sustainable Future

There is an urgent need for a new paradigm that integrates clean technologies into our day to day life. Global warming, environmental degradation and increased fuel prices threatens the future of humanity. The current crisis is a clear call to transform our awareness and lifestyle.

In order to give a strong lead towards the development of clean technologies and a sustainable society, the Brahma Kumaris World Spiritual University is actively involved in the research and demonstration of alternative renewable energy concepts.

The Brahma Kumaris teaches Raja Yoga meditation, promotes values and ethics and operates more than 7000 meditation centers in India and 800 abroad. It became obvious to combine spirituality and values with the development of clean energy technologies. It is our understanding that the fusion of both will drive us towards a better future.



Solar steam cooking system, Shantivan, Abu Road

From a Spiritual Vision to Local Action

Since the mid 90's, Brahma Kumaris has become one of the key developers and promoters of renewable energies in India. In order to strengthen its approach Brahma Kumaris works in close liaison with its sister organization, World Renewal Spiritual Trust (WRST), a registered charity. In 2011 Brahma Kumaris and WRST were recognized as a Scientific and Industrial Research Organization by the Ministry of Science and Technology.

In 2014 an "Awareness & Training Centre" was set up by Brahma Kumaris & WRST with financial support from the United Nations Development Program, Global Environment Facility and the Ministry of New and Renewable Energy. Brahma Kumaris has developed and installed 6 large concentrating solar systems which produce steam for various process applications. In addition it has set up and operates around 350 photovoltaic battery systems all over India with a total capacity of more than 1.4 MW peak. At present "India One", a 1 MW solar thermal power plant is under construction near the Brahma Kumaris´ Shantivan Campus in Abu Road.

Brahma Kumaris & WRST are currently conducting research and training in the following technologies:

- Solar steam cooking systems
- Solar thermal power generation and thermal storage
- Photo voltaic stand alone systems
- Solar hot water plants

150 KW PV system with battery backup, Gyan Sarovar, Mt. Abu

Research and Development

Since the mid 1990's, Brahma Kumaris and WRST have been able to build and install a variety of solar energy systems all over India.

1995 - two innovative eco-buildings were constructed at Brahma Kumaris' Gyan Sarovar Campus, Mt. Abu using soil blocks, being powered by a PV/Wind hybrid system sponsored by German Federal Enterprise for International Cooperation.

1996 - a modular solar steam cooking system of 24 Scheffler dishes (7.5m^2 each, 2,000 meals/day) was installed at Gyan Sarovar.

1997 - a 50,000 ltrs/day solar hot water system was installed at Gyan Sarovar.

1999 - a solar-steam cooking system of 84 Scheffler dishes (9,5 m^2 each 35,000 meals/day) was installed at Brahma Kumaris' Shantivan Campus, Abu Road.

1999 - 60 Brahma Kumaris centers in India were equipped with a 5 KW solar PV system, funded by World Bank.

2000 - 3 x 50 KW solar PV power plants with battery backup were installed in Mt. Abu.

2002 - a 50 KW solar steam cooking system was installed at Brahma Kumaris, Yellapur, Karnataka.

2002 - a solar steam cooking system (800 kg steam daily) was installed at Brahma Kumaris' Om Shanti Retreat Centre near Delhi.

2003 - a solar steam generation system (1000 kg steam per day) for cooking, laundry and sterilization was installed at Global Hospital & Research Centre at Mt. Abu, funded by MNRE.

2006 - a 200 KW PV solar power plant with battery backup was installed at Om Shanti Retreat Centre.

2007 - a 16 m^2 Scheffler prototype dish was successfully designed and tested at Shantivan, funded by MNRE.

2011 - a 200 KW SPV power plant with battery backup was installed at Om Shanti Retreat Centre.

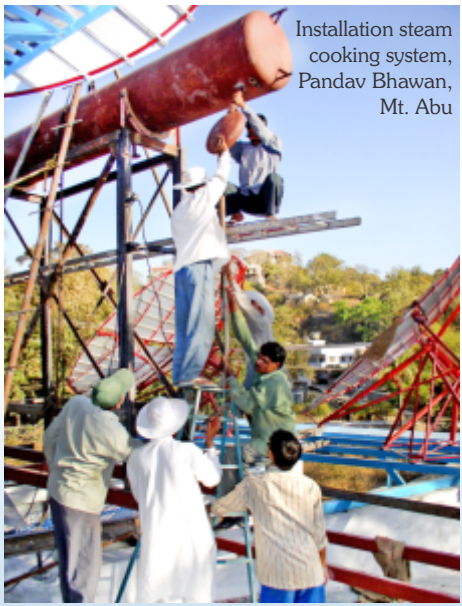
2011 - the construction of India One solar thermal power plant (1 MW) with storage, started near Shantivan.

2012 - a 200 KW SPV power plant with battery backup was installed at Om Shanti Retreat Centre.

2014 - 300 x SPV systems (1-6 KW) with battery backup were installed at various Brahma Kumaris centers in India.

In addition more than 20.000 solar lanterns, 500 home light systems and 400 solar cooking boxes have so far been distributed.

Capacity Building and Training



Installation steam cooking system, Pandav Bhawan, Mt. Abu

It is the aim of Brahma Kumaris to highlight the relation between our awareness and the technology we choose. We believe that a holistic approach based on peace, cooperation and love is the key to a sustainable future.

Brahma Kumaris inspires people to make use of renewable energy technologies by organizing training workshops, conferences and publishing research papers and articles. The research projects of Brahma Kumaris & WRST aim to build up the capacity and expertise of individuals, groups and organizations so that the design and layout of the different solar systems can be replicated.

Training & Workshop on concentrating solar power at India One, Shantivan, Abu Road

India One

In 2011 the Brahma Kumaris and WRST initiated the design, development and installation of “India One”, a 1 MW solar thermal power plant in Abu Road, Rajasthan. This research project uses the newly in-house developed 60 m^2 parabolic dish and features an innovative thermal storage for continuous operation. "India One" will generate heat and power for a campus of 25,000 people and be a milestone for decentralized clean power generation with storage in India.

Key features of “India One”:

- 770 nos. of 60 m2 parabolic dishes & 1 MW peak electrical output
- Co-generation, efficient use of thermal energy & modular design
- Thermal storage for night operation & direct steam generation
- Networked enabled automated dual axis tracking
- Motionless cavity receiver & efficient use of land

“India One” solar thermal power plant

Project Partners

For “India One”, Brahma Kumaris & WRST have secured funds from:

- the Ministry of New and Renewable Energy (MNRE, Govt. of India) under its research & development scheme.
- the German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) via its bilateral “ComSolar” initiative through the German Federal Enterprise for International Cooperation (GIZ).

Team and Consultancy

Brahma Kumaris & WRST have created a local team of engineers and experts to guarantee a smooth execution of the project. The team is in close liaison with various Indian institutes and manufacturers.

In addition, the project enjoys the support and consultancy of:

- the Fraunhofer Institute (ISE) of Freiburg, Germany which will simulate the plant, design the monitoring system and evaluate the performance.
- IndiaCare of Berlin, a long standing partner of WRST in renewable energy projects, supports the project as well as coordinates activities with German institutes and companies.

Contact:

Headquarter:
Brahma Kumaris
Pandav Bhawan, PO Box No. 2
Mt. Abu - 307501, Rajasthan, India

Solar Department:
Brahma Kumaris
Solar Department, Shantivan Campus
Abu Road - 307510, Rajasthan, India

Email: solar@brahmakumaris.com
Web: www.solar.brahmakumaris.com

Other links:

India One Solar Power Plant:	www.india-one.net
Brahma Kumaris Environment:	www.eco.brahmakumaris.org
Brahma Kumaris International:	www.brahmakumaris.org
Brahma Kumaris India:	www.brahmakumaris.com

400 KW PV system and solar steam cooker
Om Shanti Retreat Center, New Delhi