News for the month of February 2015

RE-INVEST establishes India as new global destination

RE-Invest 2015 the first Renewable Energy Global Investors Meet & Expo organised by the Ministry of New and Renewable Energy (MNRE) showcased the Government of India's commitment to the development and scaling up of renewable energy in India to meet the national energy requirement in a socially, economically and ecologically sustainable manner. It has connected the global investment community with renewable energy stakeholders in India.

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The three day event inaugurated by the Prime Minister of India, Narendra Modi attracted 2,860 delegates from 42 countries and also had 41 international speakers showcasing their faith in the Indian renewable energy scenario. In his inaugural address he said "Sun god is worshiped in India since ages and is often portrayed as riding a chariot driven by 7 horses. These seven horses constitute the 7 major forms of energy i.e. Coal, Oil, Gas, Hydro, Solar , Wind and Bio.

Piyush Goyal the Minister for Power, Coal and New & Renewable Energy said "Renewable Energy is an article of faith with the Prime Minister and he is not just doing out of compulsion or pressure or to impress the world. We will ensure renewable energy in India will be a people's movement and become every individual's mainstream of India's energy future."

The market for decentralised renewable energy in India could be worth more than US$150 million by 2018 according to the Climate Group and Investment Bank Goldman Sachs. Low temperature solar thermal systems will be a major beneficiary and has greatest potential for scale-up.

Adnan Z. Amin Director-General, IRENA said "adoption of increasingly cost-effective renewables holds the genuine promise in India in the new age of socio-economic development." He stressed that solar thermal had important role to play in socio-economic development of India and has the potential to create several job opportunities. He praised the solar thermal developments in India and is a case study to the world.

Gerhard Stryi Hipp shared that the solar thermal water heating for low temperature process heat (SoPro) said that low temperature solar thermal system is championing as potential catalyst for sustainable growth of off grid solar in India. "We are developing a cheap and rebut monitoring system to address the performance of such systems." His findings of India as the third largest market after China and Turkey at 1,105 MWth was greeted with thunderous applause.

Dr. Sameer Miathel in his remarks said solar water heater market is set to reach 3.25 million m2 annually by the year 2022 and is upbeat on it. Presently it stands close to 1 million m2 annually. Concentrated solar thermal technology poses challenge but it likely to become commercially viable in another 5 years given the kind of technological developments undertaken and the fillip provided by the UNDP-GEF project.

Dr. Carsten Corino, CEO of The SunOyster, developer of one side of a parabolic trough who is exhibiting for the 3rd time in an Indian renewable energy exhibition said "RE-INVEST platform has enable gained more faith in the Indian market. I have come here to explore manufacturing in India and already in talks with a couple of them who have shown interest in my product." Together with an Indian partner he aims to start the serial production in India at the end of 2015.

Solar thermal exhibits from India were very few and the exhibit was dominated by PV manufacturers. Dr. Vimal Kumar Eswarlal of Mangla Smart Energy came with expectations about presentations and exhibits on concentrated solar energy but felt let down with hardly any exhibits and virtually no mention about solar thermal in the entire event. RE-INVEST has ushered a new dawn in India's renewable energy foresight and the country is all set to become a renewable energy capital in the world.

http://www.re-invest.in

Police Training Centre, Andhra Pradesh to install solar cooking systems

Another solar thermal cooking systems gets operational at the at Ananatpu and Ongole Police Training Centres (PTC) in Andhra Pradesh state. Two numbers of ARUN30 solar concentrator dishes with a reflector area of 68 m^2 are installed at each of these locations. The dishes supply saturated steam at 4kg/cm2 to the steam header which will provide sufficient energy for cooking meals for 800 people to cater to cooking for about 700-800 meals per day. The total project cost is Rs. 27 lakh and it is estimated to save about 22 kgs of Liquefied petroleum Gas (LPG) per day.

The PTC has also availed received central financial assistance of 30% and as a result the payback period is close to 3 years. Earlier PTC had also commissioned Scheffler dish based solar cooking systems at 5 other centres. The brainchild behind this is the visionary Surendra Babu, IPS who during his initial training days had witnessed a working solar steam cooking system dating almost 10 years back and praised the support extended New and Renewable Energy Development Corporation of Andhra Pradesh (NREDCAP) for obtaining the funding and tendering process.

Abhishek Bhatewara, Director of Clique Solar who have supplied the system mentions 'We were was awarded this project under a tender where Clique Solar quoted the lowest. While the tender called for a solar cooking system without any provision for thermal storage, we realised that the cooking energy demand and the supply of energy depending upon the solar radiation availability did not match. Hence we designed a small steam storage tank so that early morning breakfast can also be cooked on solar, and the solar energy does not go waste when the cooking is not taking place. This is the first such solar cooking installation with steam storage across Andhra Pradesh and Telangana as well as a first in any Police Organization in India.

The success of the solar thermal cooking systems at Andhra Pradesh PTC should be an inspiration to other state police training academy's in the country and should go in long way to save the fuel. Clique Solar is also looking forward to explore similar projects in state police training academy's in the country.

http://www.appa.gov.in/index.html

Worthy appreciation to Replication and Demonstration scheme

Prior to the UNDP-GEF programme on concentrated solar thermal heating systems that started in April 2012, India had 85 systems of about 25,000 m2 area largely fixed focus single axis tracked Paraboloid (Scheffler) dishes and handful of them using ARUN™ dishes. Technologies related to Parabolic Trough, Parabolid dishes, Linear Fresnel Reflectors and non-imaging concentrators were hardly constructed by manufacturers to attract potential beneficiaries.

Keeping the above state of affairs in mind the Project Executive Committee of CSH project decided that the technology on Scheffler dishes with 16 m2 area, which was largely in promotion and was understood to be an established and commercialized technology, get 'Replication' category and the other technologies yet to be established but likely to get commercialized may get 'Demonstration' category for some time subject to project size of 150/250 m2 and above depending on type of technology used.

Under the UNDP-GEF concentrating solar thermal heating (CSH) programme a total of 53 projects with an installed area of 16,573 m2 have been supported. Of these 23 projects with an area of 11,678 m2 are demonstration type largely for process heat and 30 projects with 4,695 m2 area are replication largely for cooking application. Besides an additional 2,930 m2 was also supported for repair and renovations for space cooling and cooking.

Tables 1 and 2 below give the projects sanctioned under demonstration and Replication until December 2014

Demonstration Projects (each 150-250 m2 & above)

Sl.	Technology	Application				Total	
		Cooking		Process Heat/ Cooling			
		No. of Projects	Coll. Area (m2)	No. of Projects	Coll. Area (m2)	No. of Projects	Coll. Area (m2)
1	Scheffler Dishes	2	2,064	1	256	3	2,320
2	Parabolic Trough	-	-	9	3,333	9	3,333
3	Arun Dish	-	-	4	1,014	4	1,014
4	Paraboloid Dish	-	-	4	3,515	4	3,515
5	Non-Imaging	-	-	3	1,496	3	1,496
TOTAL		**2**	**2,064**	**21**	**9,614**	**23**	**11,678**

Replication & Other Projects

Sl.	Technology	Application				Total	
		Cooking		Process Heat/ Cooling			
		No. of Projects	Coll. Area (m2)	No. of Projects	Coll. Area (m2)	No. of Projects	Coll. Area (m2)
1	Scheffler Dishes	16	2,432	1	480	17	2,912
2	Parabolic Trough	-	-	3	460	3	460
3	Arun Dish	4	416	3	611	7	1,027
4	Paraboloid Dish	2	110	1	186	3	296
TOTAL		**22**	**2,958**	**8**	**1,737**	**30**	**4,695**

Table 1: Achievements for demonstration and replication projects under UNDP-GEF programme

Repair & Renovation Projects

Application/ Technology	No. of Projects	Coll. Area (m2)
Space Cooling/ Scheffler Dishes	1	1,250
Cooking/ Scheffler Dishes	6	1,680

Table 2: Achievements for repair and renovation projects under UNDP-GEF programme

The progress of demonstration and replications is steadily moving and nearly 60% are already commissioned. These projects where completed are expected to saving 1.23 million litres of fuel oil and reducing 5,730 tons of CO_2 per year.

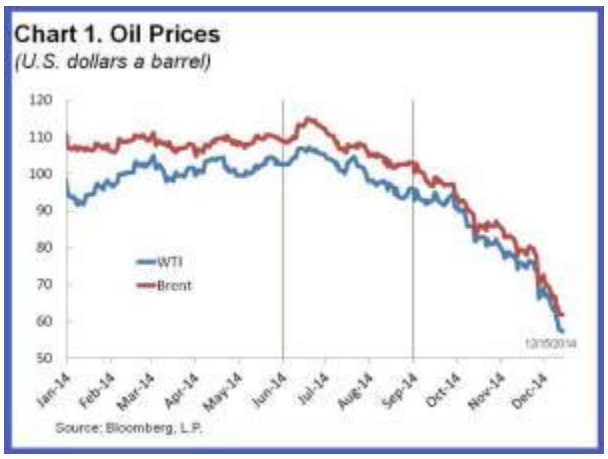
The government of India provides capital subsidy of 30% for concentrated solar thermal projects. Profitable business enterprises can also claim benefit of 80% accelerated depreciation. Besides under the UNDP-GEF project additional support of 15% of MNRE benchmark cost is granted for specific activities limited to Rs. 75 lakh for demonstration projects and up to Rs. 10 lakh for other projects. For 5-year old systems needing repair and renovation, 20% of the system cost limited to Rs. 15 lakh, subject equal amount spent by beneficiary is provided.

According to the UNDP-GEF project team extensive publicity in newspapers and magazines and the series of nearly 40 industrial workshops has drawn the industries and institutions motivated to opt for CST heating.

The UNDP-GEF CSH project targets 45,000 m2 of systems installed in 90 establishments through Demonstration & Replication projects in the period April 2012-March 2017 resulting in 39,200 tons of CO2 emission reduction and savings 3.15 million liters of fuel oil annually.

http://www.cshindia.in/images/MNRE%20&%20UNDP%20Support/Revised%20UNDP-GEF%20support.pdf

Falling crude prices can dent market growth



Crude oil prices have been falling steeply all through the latter half of 2014 and is showing a continued trend in early 2015. Every time they hit a new low, they have been making headlines. Brent Crude Oil prices fell below $50 a barrel as the first week of 2015 started, down from US$114.83 in June'14 triggered by several factors prominent being increase in oil and shale gas production capacity in the USA, Re-establishment of operations in oil producing regions like Libya and Iraq and Falling demand in Europe, Japan and China.

The high price of oil is always seen to be a driver for any renewable energy, so it is but natural to expect that such a steep fall in prices would have an adverse impact on renewable sources of energy particularly when it comes to solar thermal energy.

The compelling policy mandating renewable energy generation by the central and state governments and also the attractiveness of UNDP-GEF project on concentrated solar thermal will however continue to be the driver to invite investments in solar thermal energy, despite lower oil prices.

V.K. Valliappan, Managing Director of Greenenra Energy India says" industries are aware that such crashes often occur and history shows that they bounce back to base levels hence such situation do not deter their plans to consider adopting solar systems. Besides it is important to note that industries or institutions that have determination to use concentrated solar thermal often ignore such state of affairs. If however the lower prices continue for long then the situation will turn hopeless and government will have to rope in with additional incentives."

Suresh Kapadia (M.D.) of Sharda Inventions repeals by stating that lower crude oil prices certainly has bearing on the economics of any concentrating solar thermal system is directly related to fossil fuel savings which is the primary fuel used. "If the situation persists like this there should be a plan by the government for additional incentive since concentrated solar thermal in India is in a take-off mode and else brakes applied on this growth engine" says Kapadia.

Industry body demands immediate check on cheaper imports

Cheaper imports from neighboring China is becoming a major glitch for the very survival of the solar water heater industry.

The National Solar Mission that had announced a capital subsidy of 30% on solar water heaters was withdrawn in August 2014 and as a result it was an open market. Since subsidy was the driver for business growth and vacuum tube based systems were finding favor over flat plate due to cost advantage hence the Chinese exporters enjoyed export incentives close to 17% and this also led to rise of their business in India. However the solar water heating systems had to adhere to strict specifications as laid down by the Ministry of New and New Renewable Energy (MNRE).

Realising now it is an open market besides the demand for vacuum tubes was also on the rise the export incentive on tubes was removed and besides the category of tubes that was exported was classified under a separate Harmonized System (HS) Code of "glassware" (HS Code 7020009990). As a result the vacuum tubes imported in India also attracted customs duty to the tune of 12.5%. As a result the cost of import of vacuum tubes shot by almost (17% + 12.5%) 30%.

However wily the Chinese government introduced export incentive on complete solar water heater including storage tanks and vacuum tubes. Since the item is classified as a solar energy product hence it also does not attract customs. According to Sethurraman of Solar Hi-tech Geysers, who has done in-depth study of this situation says "This could very well be the objective of the new Chinese policy: Convince international clients to buy complete systems instead of only one component, by which increase the Chinese exports & employments in China."

These complete imported systems are of absolute inferior quality and the end user who is falling prey to cheaper cost will eventually pay price in the long run since they will not be able to perform in long run.

The industry is now demanding to introduce an HS code for complete solar water heater to keep check on the imports and also impose customs duty such that imports do not become cheaper to domestic production. Sethur Raman further adds "The imposition of such additional ad valorem duty, since not country specific, cannot be treated as anti dumping duty and the

conditions for imposing anti dumping duty cannot be applied or demanded for this additional ad valorem duty."

The National Helpline has already reported calls from end users on price disparity observed in prices of solar water heaters, which could well be an indication of cheaper imports already happening.

Solar Thermal Federation of India (STFI), India's only solar thermal industry body has already made representation to the officials of MNRE and written to Secretary Revenue, Ministry of Finance apprising of the situation. MNRE officials are already acting on the issue and is hoped that a quick solution is worked out to rescue the manufacturers.

Indian solar water heater industry presently is worth 1 million m2 annually and with benchmark price as per MNRE as Rs. 8,500 per m2. It is worth Rs. 8.5 billion (105 million EUR) industry and unless drastic and immediate measures are not take this revenue will get eroded from the Indian manufacturers, create manufacturing unemployment and will turn manufacturers to become dealers of Chinese products.

http://www.stfi.org.in