

News for the month of August 2016....

Will Solar Thermal industry be spared of GST?



The Goods and Services Tax (GST), the biggest reform in India's indirect tax structure since the economy began to be opened up 25 years ago, at last looks set to become reality. It would bring together central and state levies to turn India into a "one tax" country. However renewable energy industry may take a hit as per analysis done by Solar Thermal Federation of India (STFI).

The thriving renewable energy industry in India can be partly attributed to the tax breaks and other incentives provided by the government. The renewable energy sector currently enjoys various fiscal incentives like 100% tax holiday on the earnings for 10 years, concessional or no excise and custom duties and so on. Similarly solar thermal systems have been exempted from most forms of taxes except Value Added Tax (VAT) ranging between 0% - 5.5% depending in the state where it is sold. All these incentives will come to an end in the new GST regime.

GST brings all forms of taxes like VAT, Excise, Services, etc. as one tax. If this uniform figure is above the VAT then it will translate systems to becoming pricey. This is likely to put brakes on business development considering these tax exemptions were drivers to attract investments. The increase in costs will have to be forced to pass on to the buyer.

A latest finding from a study commissioned by Ministry of New and Renewable Energy (MNRE) has also revealed that the implementation of the GST will increase the cost of setting up of all categories of renewable energy systems. MNRE is believed to be pushing for a waiver from GST arguing that a sudden increase in cost would lead to disruption in the sector and delay implementation of policy targets. In order that the momentum of business development of solar energy continues, government will have to work a mechanism or a formula that will ensure that costs of renewable energy system sustains post GST.

R. Sethuraman of Solar Hi-tech Geysers said "If the increase in GST on a solar system is more than VAT rate then we may not be able to absorb that increase, since our raw material could also cost more and will not help in increasing our net revenue."

Already the cheaper imports have eaten up considerable amount of domestic business by way of sub-standard components. While Basic Customs Duty (BCD) is a meagre 10% other levies add up close to 19%. While BCD does not fall under GST, the balance rate virtually matches the GST rate proposed as 18%. Thus it will be essential that the BCD is hiked to sustain business. Shri Piyush Goyal, Hon'ble Minister for Coal, Power and New and Renewable Energy Minister, said "Ideally we should put GST (rate) on imports so that it becomes a level-playing field and domestic manufacturing are not at disadvantage."

Devendra Surana Managing Director, Bhagyanagar India Limited says “We should have a uniform policy such that there is no dis-advantage to the domestic manufacturers. For e.g. today while imported systems are totally exempt from all taxes and we find domestic manufacturers have to pay taxes on components as well as sales tax in some places. This type of duty structure should be avoided”.

STFI is of the opinion that the solar thermal sector has a strong case for an exemption from GST. Moreover, solar thermal sector is still relatively small; an exemption would not lead to significant loss of revenue in the short-term.

<http://finmin.nic.in/gst/index.asp>

<http://www.gstindia.com/>

Hot Air dryer set up at a pigment factory



(Photo courtesy: Megawatt Solutions)

With the intent to save time for drying and improvise pigment quality Ultramarine & Pigments Limited (UPL) based at Ranipet, Tamil Nadu decided to explore solar thermal heating. They have set up six parabolic concentrators each of 95 m² area totalling to 570m² supplied by Megawatt Solutions. The commissioning took around 4 months and the system started operating in June 2016. Previously, the customer used kerosene based paddle dryers to remove moisture from the product, which now acts as a back-up source. This is the one of its kind of an integrated project in India for generating hot air claims the supplier.

It consists of dual axis tracking based completely automated which concentrate incoming solar radiation to heat up thermic oil at upto 200°C. This hot thermic oil goes to hot air generator in a closed loop, which utilizes hot thermic oil to generate good quality hot air up to 110°C through radiator. The air flow rate is fixed at 55,000 kg/day and with average daily energy yield up to 15,00,000 kcal/day.

Post commissioning drying a batch of pigment which earlier required 2-3 days, now requires less than 6 hours using the hot air generated through solar field.

The total project cost is close to Rs. 1.4 crores and has benefitted with the capital subsidy of 30% from Ministry of New and Renewable Energy and the applicable support under GEF-UNDP programme. The project will payback well within 4 years.

UPL manufactures pigments and surfactants used in laundry, cleaning solutions, paints, etc. for which they required thermal energy in the form of hot air to reduce moisture content of their end product. With the objective of reducing fuel consumption and carbon footprint they explored implementing a solar thermal heating system.

<http://www.ultramarinepigments.net/>

Textile sector offers potential target for solar thermal heating



(Photo courtesy: Solar Thermal Federation of India)

GEF-UNIDO supported awareness workshop on promoting and developing concentrated solar thermal systems (CST) was organized by the Confederation of Indian Industry (CII), Rajasthan chapter on 29th July 2016. Over 50 potential industry participants made it to the event

Dr. R.P. Goswami (Director - Solar Thermal) in Ministry of New and Renewable Energy (MNRE) in his address informed the august gathering that there are twenty seven manufacturer & suppliers, six Entrepreneurs and fifteen Channel Partners active in the country. He gave an overview of the central government policies for market development. B.K. Dosi, Managing Director, Rajasthan Renewable Energy Corporation Limited (RRECL) said the textile sector offers great potential for meeting heating needs through solar thermal. RRECL is planning awareness events in future in Jodhpur and Bhilwara targeting the textile sector. S. G. Vyas, Past Chairman of CII, Rajasthan praised the efforts of GEF-UNIDO and MNRE and assured full support of industry to promote and develop concentrated solar thermal systems. A. K. Jain of Rajasthan Electronics & Instruments Ltd. informed that CST systems has the ability to replace 100% fossil fuel for meeting heating requirements in dairy and food processing industry. Jaideep N. Malaviya of Solar Thermal Federation of India presented the latest survey findings on introducing solar heat obligations.

Dr. Anil Misra, National Project Manager highlighted the GEF-UNIDO programme objectives of transforming the market for solar energy for industrial heat applications in India through investment, market demonstration, capacity building and contribution to establish favourable policy and regulatory environment. The GEF-UNIDO aims to facilitate the installation 45,000 m² of installed CST collector area through 15-25 demonstration and 60 replication projects. Apart from capital 30% subsidy, there is also interest subvention of 5% on loan from Indian Renewable Energy Development Agency (IREDA). The minimum loan amount should be Rs. 50,00,000/-. The repayment period is 6 years with 1 year moratorium.

Prior to the event field visits were organized at Sohni Manipal Institute (SMI) and Malaviya National Institute of Technology (MNIT). SMI has commissioned a 56 m² parabolic trough solar thermal system to provide 10,000 litres of hot water at 65 °C required for various processes. MNIT has solar steam cooking system that provides two course meals for 600 students in the hostel using 96 m² Scheffler dishes.

<http://www.unido.org>

<http://www.mnre.gov.in>

Harayana schools get couple of solar cooking systems



(Photo: Solar cooking at Gurjar Kanya Vidya Mandir, courtesy: K Energy)

To promote solar cooking with the objective of saving fuel the Haryana government have supported couple of schools to go for solar steam cooking.

A 256 m² system at Gurukul Kurukshetra , Kurukshetra and a 96 m² system at Gurjar Kanya Vidya Mandir, Devdhar, district Yamuna Nagar are successfully commissioned to meet the cooking requirements. K Energy Systems of Jodhpur qualified as the supplier through a tendering process. Nearly 2,000 students will enjoy the solar cooked food. For each day of solar cooked food they will combined save close to 250 kgs. of Liquefied Petroleum Gas (LPG).

While the investment at Gurukul Kurukshetra was close to Rs. 50 lakh the Gurjar Kanya Vidya Mandir was close to Rs. 19 lakh. According to HAREDA these systems will add new dimension in school cooking systems in the state and more schools are likely to be supported in future.

The above systems have also qualified for the central government capital subsidy scheme of 30% besides the state incentive and will pay back in less than 2 years.

The Government of Haryana has recently formulated Haryana Solar Power Policy 2016 vide 19/4/2016-5 Power to promote solar energy. In the concentrated solar thermal it will meet the Community cooking energy needs in residential institutions/industrial mess/hotels/barracks/mid-day meal program/hospitals etc., laundries, industrial application of steam in process industries such as textile/food industry etc.,.

<http://hareda.gov.in/>

Systems successfully repaired at Dayalbagh Institutions



(Photo courtesy: ARS Glass Tech)

ARS Glass Tech Pvt. Ltd. has successfully completed the repair of all the Scheffler dishes commissioned at Dayalbagh Junior Boys High School, Senior Boys High School and Girls Hostel in Agra. There are a total of 15 nos. of dishes each 16 m² thus measuring a total of 240 m² used for steam cooking. They were installed in the year 2011. After almost 7 years the mirrors and insulation had deteriorated which required either repair or complete replacement. The management of the institutions wanted to ensure that the solar cooking system remains operational.

The activity was carried as a part of the GEF-UNDP programme a scheme on Repair & Renovation of Projects that provided financial assistance of 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.

Rajat Verma of ARS Glass Tech informs “We undertook complete maintenance of the system and changed necessary components that needed to be replaced. We also changed old mirrors with new solar grade mirrors. Even the insulations had considerably damaged at several places, which were replaced completely. It took is 22 days involving 12 persons working full time.”

The total cost of repair and replacement was around Rs. 13,00,000/- and benefitted from the 50% subsidy scheme of the GEF-UNDP. The mirrors carry a warranty of 5 years.

However Verma further adds that it is advantageous to have a back-up boiler for any typical concentrated solar thermal heating system in order to store the steam for a better efficiency. Also data monitoring system like flow meters must be present in order to measure the actual amount of steam generated. This helps in understanding the demand-supply ratio and also the seasonal requirements.

<http://www.dei.ac.in/>