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Larger turbines for higher yield

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Country Special Austria & Switzerland: a question of policy

Whereas Austria has found many ways of driving the development of renewables, regenerative energies still have to gain ground in Switzerland. In Austria a complex framework policy is keeping the market back. In Switzerland a stronger political will for a more dynamic development is so far missing.

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Photo: Europressedienst

Photo: EPA/Larry W. Smith

Wind energy market USA: hope for recovery

The global financial crisis has had a much greater impact on the wind energy market in the USA and Canada than in Europe. The market volume was practically halved in 2010 – and long-term political support is still lacking.

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= manufacturing technology feature

Photo: Georgia Biomass

Know-how transfer into the USA

To expand their biomass sector US companies and project developers are looking for experienced partners. One possibility to allay this demand for knowledge was the 1st German American Bioenergy Conference.

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Largest solar thermal plant in California

Chromasun's MCT collector Photo: Chromasun

The Santa Clara University (SCU) has put California's biggest solar thermal plant into operation. The plant was constructed by system integrator SunWater Solar. The heart of the installation consists of 60 MCT HT collectors supplied by Chromasun, which are located on the university's roof. By concentrating sunlight using Fresnel mirrors by a factor of up to 25 and focussing it onto an absorber tube, the collectors can generate a working temperature of up to 220 °C.

At the SCU, the solar system will provide water with a temperature of nearly 90° C for use in the kitchens. Both Chromasun and SCU expect that the solar plant will provide approx. 197 MWh of thermal energy per year and thus reduce natural gas consumption by more than 70 %.

For the time being, the solar system has been leased by the university for 10 years. During this time, SCU will pay a fixed sum for the energy generated. At the end of the leasing period, the system will pass into ownership of the university. The installation will pay for itself in only six years, thanks to the State of California, which subsidized this installation with approx. US$ 86,000 as part of the California Solar Initiative - Thermal (CSI-T) programme.

In total, the CSI-T programme is providing US$ 358.3 million in the form of tax credits to promote the use of solar thermal plants in California.

Water heating tour in the US

Israeli solar system manufacturer Chromagen and its partner company A.O. Smith in the United States will start a two-year promotion tour throughout the US. During the United States High Efficiency Revolution Tour, which will be organised by A.O. Smith, the partners will work with educating distributors, wholesalers, contractors, plumbers, specifying engineers, builders and consumers about solar thermal water heating solutions. The tour will start in Long Beach, California, and present inter alia the Cirrex Solar Thermal Water Heating System. The system comprises collectors from Chromagen and a water tank from A.O. Smith.

The tour is a self-contained demonstration centre arriving to locations throughout the states via a recreation vehicle (RV). It is loaded with six water heating products and accompanied by a team of water heating experts. Schedule information can be found at: www.hotwater.com/MMV

Mutual calculation method for solar thermal energy

In future, energy statistics are set to include an estimate of the energy produced by solar thermal technologies. In order to make this possible, the IEA-SHC and the most important solar thermal associations have agreed on a mutual calculation method, which will be used to estimate the annual output of the solar collectors in kWh. The programme, which was developed by the IEA-SHC and other partners, is a step forward for the worldwide evaluation of the energy made available by solar thermal systems. Up until now, the output in kW_{th} has simply been estimated using the installed collector area.

The new method uses simple formulas. The data is obtained from easily available information, for example the solar irradiation on a horizontal plane in particular areas and the total area of installed collectors in a region, in order to calculate the respective annual output.

Large scale system for Dubai Sports Complex

The Greek solar system manufacturer Sole S.A. completed the installation of a large scale solar heating system at the new Dubai Sports Complex. The system covers 1,026 m^2 of collectors with a selective blue coating for sanitary hot water and swimming pool heating. The collectors are mounted on the side of the building and are heating about 8,000 litres of water per day. They produce up to 3,200 kWh of thermal energy per day and about 9,200 MWh per year.

The installation is Sole's second large scale system in Dubai. Last year the Greek company installed a large scale system at the Burj Khalifa, to date the tallest building in the world (828 m).

The Dubai Sports Centre can accommodate 15,000 spectators and contains the Dubai Aquatic centre, which is said to be the world's most sophisticated indoor aqua sport centre. Sole is an international active company. The Greek company exports about 70 % of its products worldwide.

Sole's Managing Director Vangelis Lamaris announces proudly: "The 1,026 m^2 big installation is very prestigious." Photo: Sole S.A.