

Innovative Energy Technologies in Austria – Market Development 2010

Biomass, Photovoltaic, Solar Thermal Collectors and Heat Pumps

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Abstract

Like numerous other fields of economy the market development of technologies for the use of renewable energy sources suffered from detrimental influences in 2010. The strong trend of heating systems based on renewable energy sources in Austria was reduced due to the damped investment climate due to the financial and economic crisis, the moderate price of crude oil and last but not least an initiative of the Austrian mineral oil industry to support new oil-fired heating systems. The export markets also show decreases of sales figures in some sectors. Stagnation of sales on the home market was on a high level what shows that these economic sectors are crisis-proof. And last but not least the photovoltaic sector showed a strong increase and historical record sales in 2010.

The consumption of final energy from sold biofuels was 163.3 PJ in 2010 and therefore it was 3.6% higher than in 2009. The trade balance shows an import of 1.1 million tons of wood log, wood chips and wood pellets. Fuels from solid biomass contribute to a CO₂ reduction of almost 9.4 million tons for 2010. The whole sector of solid biofuels accounted a total turnover of 1.3 billion euros and approximately 13,300 full time jobs.

The Austrian market for biomass boilers comprises 8131 pellet boilers, 6211 wood log boilers and 4219 wood chip boilers for 2010, together 18,561 biomass boilers in 2010. Furthermore 3273 pellet stoves, 8210 cooking stoves and 26,100 wood log stoves were sold. Austrian biomass boiler manufacturers and stove manufacturers typically export approximately 70% of their production. The biomass boiler and stove sector obtained a turnover of 867 million euros in 2010. This resulted in a total number of 4097 full time jobs.

Photovoltaic systems with a total capacity of 42.9 kW_{peak} were installed in Austria in 2010. That was the highest market diffusion in Austria since the market introduction and it was supported by different promotion mechanisms of the federal provinces and the federal government. The cumulated total installed capacity of photovoltaic systems was 95.5 MW_{peak}. As a consequence the sum of produced renewable electricity by PV plants in operation amounted to 88.8 GWh in 2010 and lead to a reduction in CO₂ - emissions by approximately 36,700 tons. The whole sector of photovoltaic accounted a total turnover of 824 million euros and approximately 4,400 full time jobs.

In 2010 a total of approx. 285.800 m² solar thermal collectors were installed. Considering the technical life span, in the year 2010 approximately 4.5 million m² of solar thermal collectors were in operation in Austria. The solar yield of these systems was equal to 1.876 GWh_{th}. The avoided CO₂-emissions are approx. 411,596 tons. 94% of the installed collectors were flat plate collectors and the export rate was 79%. The development of the solar thermal collector market in Austria is characterized by a decrease of the sales figures of 21.7% in 2010. The turnover of solar thermal industry was estimated with 420 million euros for the year 2010. Therefore approx. 4.700 full time jobs can be numbered in the solar thermal business.

In the Austrian heat pump market 17,578 plants (all types and performance classes) were sold in the year 2010. These were 3.1% fewer than in the year 2009. Considering the technical plant life span, in the year 2010 177,261 heat pumps were in operation in Austria. These plants made 1.381 GWh environment heat usable. Considering the electric current demand for the operation of the heat pumps CO₂-savings of 375,459 tons can be registered. The export relation of the total Austrian heat pump market 2010 was 38.2%. For the heat pump industry a 2010 turnover of 207 million Euros and 1,101 persons employed were registered.

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