

COUNTRY REPORT: AUSTRIA

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A brief description of the most important elements in Austrian regulations and certification/subsidy schemes related to solar thermal products is given below. The description is valid for October 2014.

Background/status

In the period between the year 2002 and 2009 the Austrian solar thermal market grew significantly due to rising oil prices but also due to new applications in the multifamily house sector, the tourism sector as well as with new applications in solar assisted district heating and industrial process heat. After this phase of massive growths the sector is facing a declining market in the fourth year in a row because of the effects of economic and financial crisis and the beginning competition to other renewable technologies.¹

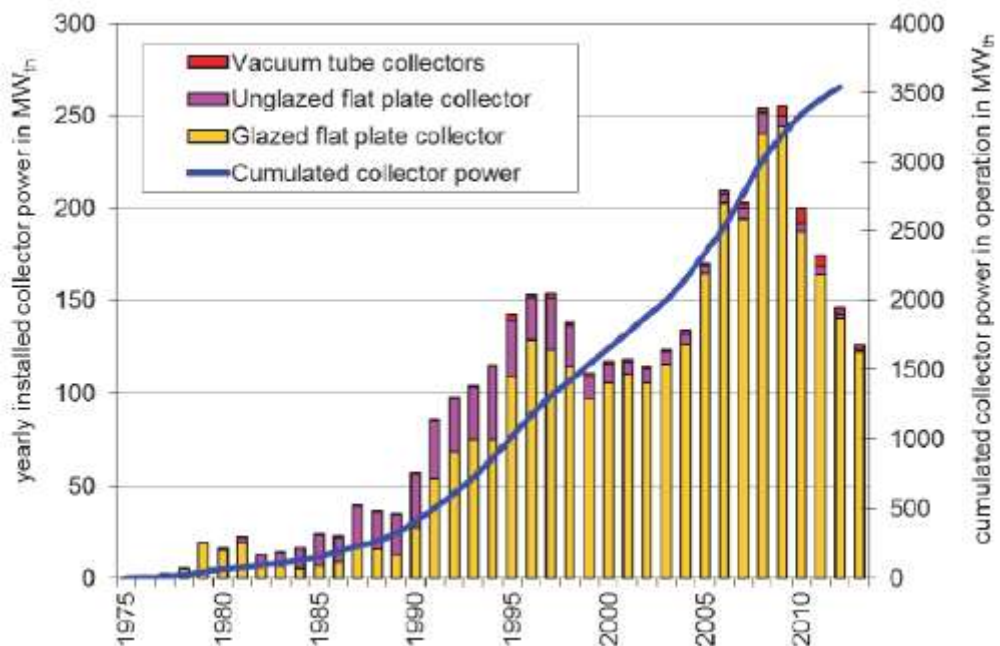


Figure 1: Market development of solar thermal collectors in Austria until 2013¹

By the end of the year 2013 approx. 5 million m² of solar thermal collectors were in operation. This corresponds to an installed thermal capacity of 3.541 MW_{th}.¹

The current research and development focus of the sector is on cost efficient hybrid systems, compact thermal storages with increased energy density as well as on new materials for solar absorbers, facade systems and the "Active Solar House". Besides increased R&D activities and significant reduction of the system price for end consumer also new

¹ Biermayr et al, Innovative Energietechnologien in Österreich, Marktentwicklung 2013, 26/2014

performance based incentive schemes or solar heat tariffs might be additional drivers to bring solar thermal systems back to the growth phase.²

Regulatory Framework

Building Regulation (general)

Building regulations are in the responsibility of the provinces. There are no barriers for the use of solar thermal energy, with exceptions on historical buildings or some regions/cities with intense tourism. Styria requires solar thermal systems for all new residential buildings obtaining public funding.

Safety control

Requirements for solar thermal systems according safety and recommendations for design are stated in ÖNORM M 7777. This Austrian Standard shall be applied with EN 12977 for planning, installation and operation of systems using thermal solar collectors with heat transfer fluids. It applies to small and medium sized solar thermal systems for hot water supply, heating support and general thermal use up to a gross collector surface of 50 m², except drain back and thermal siphon systems. Part 2 concerns particularly problems related to standstill behaviour of small and medium sized systems and the resulting hydraulic switching connections.

Public Incentives (subsidies, ordinances or other)

Relevant incentives and their requirements:

The effective Austrian subsidy system and mainly its continuity seem to be one of the main success factors for the high dissemination of solar thermal collectors in Austria. (More than 5 Mio m² collector area for 8,5 Mio people).

Solar thermal installations are subsidized in all nine provinces in Austria under certain conditions. All provinces allocate public housing funds to single and multi family housing owners, if solar thermal is used.

Private persons get subsidies from regional bodies (region and/or municipality). The amount of funding and the relevant requirements vary among the different provinces. Nearly all specify a minimum of 4 to 5m² collector area for domestic hot water production; some require the installation of a heat meter (Burgenland, Upper Austria, Vorarlberg, Tyrol). Since 2010 Styria requires solar thermal systems for all new residential buildings obtaining public funding. A detailed list about subsidies and their

² Biermayr et al, Innovative Energietechnologien in Österreich, Marktentwicklung 2013, 26/2014

requirements for Austrian solar thermal systems for private persons is available at <http://www.solarwaerme.at/docs/938.pdf>.

Additional subsidizing comes from various municipalities, which give some additional money; the requirement for this is mainly the same like the subsidy from provincial side.

In order to support the market penetration of large solar systems, a publicly financed programme for “Large Solar Thermal Systems” has been introduced since 2010. Currently it supports the planning and the erection of solar thermal systems with a collector area between 100 and 2000 m² in five thematic areas³:

- Solar process heat in production companies
- Integration of solar thermal energy in district heat supply (micro net, district heating networks)
- Solar thermal systems with high solar fraction for trade and service companies
- Solar cooling with solar hot water production and heating in times without cooling demand
- New technologies and innovative concepts related to solar thermal systems

In 2014 a publicly financed programme „Solar houses“ for demonstration projects in the single- and semi-family house sector has been launched. The requirement is to achieve more than 70% of the total energy consumption by solar thermal systems. In order to improve this housing concept and to support their diffusion in Europe there has been included a scientific monitoring and evaluation at selected houses.

Federal subsidies for industries are controlled and organized by KPC (Kommunalkredit Public Consulting). For funding solar thermal systems larger than 100 m² for various fields of application test reports according to EN 12975 or EN ISO 9806 are required. Additionally a forecast of the monthly energy yield has to be delivered. Furthermore specification of costs, several quotations and all permits needed for the erection and operation of the solar thermal system are required.⁴

From a European marketing aspect it is essential, that currently the only requirement for subsidies is the test according to EN 12975 respectively EN ISO 9806; which means that no local barriers concerning additional requirements on solar collectors exist. It is the intention of the main drivers in Austria (Solar association, research institutes) to finally have the European Solar Keymark as the requirement.

³ www.umweltfoerderung.at/kpc/de/home/umweltfoerderung/fr_betriebe/energieversorgung/solare_groanlagen/

⁴ www.umweltfoerderung.at/uploads/ufi_standardfall_infoblatt_solar.pdf

Testing

AIT (www.ait.ac.at) and ASiC (www.asic.at) are the accredited testing institutes which perform solar collector testing according to EN 12975 respectively EN ISO 9806.

Certification

Product certification: No national certification scheme for solar thermal products. No Austrian certification body is awarding Solar Keymark certificates. Solar Keymark certificates are mainly awarded by DIN CERTCO in Germany in cooperation with the test institutes.

Installer certification: There exists a voluntary certification scheme for installers and planners of solar thermal systems by AIT which is called “Certified Solar Heating Installer and Planner”.⁵

Industry certification: The solar companies can apply for the “Austria Solar Gütesiegel”⁶, a label for solar thermal companies; the requirements for getting this label are mainly: tested products (Solar Keymark), high quality documentation, and customer friendly product information, 10 years of guarantee on collectors and 5 years on storage tanks. 20 Austrian companies are certified according to the “Austria Solar Gütesiegel”.

Environmental certification: On a voluntary basis an environmental label called “Umweltzeichen” according to the schemes “UZ15 Sonnenkollektoren und Solaranlagen”⁷ can be gained. Besides environmental criteria tests according to EN12975 , EN ISO 9806 or EN12976 respectively are required.

Insurance

Special insurance products for solar thermal and PV system are available on the Austrian insurance market. None of them have any special requirements on the collector or other parts of the solar thermal system.

⁵ www.ait.ac.at/research-services/research-services-energy/training-education

⁶ www.solarwaerme.at/EFH/Guetesiegel/

⁷ www.umweltzeichen.at/cms/home/produkte/gruene-energie/content.html?rl=15

Other relevant information

In 2010 a strategic research agenda for solar thermal research in Austria has been presented.⁸ The document is based on the European research agenda and gives a roadmap with detailed research priorities for future solar thermal research in Austria. The research agenda was prepared by the Austrian Solar Thermal Technology Platform (ASTTP).

Currently the Austrian “Klima- und Energiefonds (KLIEN)” is funding research on renewable energy respectively solar thermal technologies in the programme „Energieforschungsprogramm 2014”.

The current research and development focus of the solar thermal sector is on cost efficient hybrid systems, compact thermal storages with increased energy density as well as on new materials for solar absorbers, facade systems and the “Active Solar House”.⁹

Trade Barriers

There are currently no relevant trade barriers.

Actions needed

In September 2015 the EU Energy labelling of space heaters, water heaters, hot water storage tanks and packages combined with solar device will be introduced. Especially the installers and system designers must be trained to this topic in order to design appropriate packages with solar thermal systems. Therefore AIT Austrian Institute of Technology offers a voluntary training program called “Wissensforum Energy related Products Directive”.

Besides increased R&D activities and significant reduction of the system price for end consumer also new performance based incentive schemes or solar heat tariffs might be additional drivers to bring solar thermal systems back to the growth phase.⁹

⁸ Weiss, W., et al., Forschungsagenda Solarthermie, Berichte aus Energie und Umweltforschung 14/2010, BMVIT

⁹ Biermayr et al, Innovative Energietechnologien in Österreich, Marktentwicklung 2013, 26/2014