

# 25 % heat from solar thermal in 2030 - Upper Austria's solar programme

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## 1 Background

In the region of Upper Austria, renewable energy sources (RES) account for over 30 % of the primary energy consumption - solar energy plays a strategic role in this energy mix. Based on a history of positive experience with quantitative solar targets which were achieved through comprehensive action plans (first period: 300,000 m<sup>2</sup> solar collectors until 2000; second period: 1,000,000 m<sup>2</sup> by 2010 - equalling 0.7 m<sup>2</sup> per inhabitant - which will be achieved in early 2009), the regional government has adopted the following **targets for 2030**:

- 100 % of the space heat (incl. hot water) and electricity from renewable energy sources
- 3,000,000 m<sup>2</sup> solar collectors (2,100,00 kW<sub>th</sub>), equalling 2.2 m<sup>2</sup>/inhabitant and about 25 % of the heat demand - depending on the development of the demand, this percentage could be significantly exceeded. A significant role is also foreseen for solar in replacing electric hot water production). This is a very challenging target!

A comprehensive action plan is being implemented, including solar obligations, active support measures for the growth of solar manufacturers in the region, financial support, quality measures, training programmes etc. The O.Ö. Energiesparverband, the energy agency of Upper Austria, is in charge of implementing many of the programmes and providing services to support the transition to a solar economy.

## 2 Methods

The action plan includes for example the following measures:

### Solar obligations:

- public buildings: obligation for solar and other RES for heating and hot water (since 1999)
- all new buildings > 1,000 m<sup>2</sup>: obligation for RES for heating
- all new apartment buildings (participating in the regional housing programme), at least 2.5 m<sup>2</sup>/flat

### Financial support & quality requirements:

- Examples: 10 m<sup>2</sup> solar thermal collectors in single-family homes: subsidy of 2,100 €; for multi-family homes & social residences: 200 €/m<sup>2</sup>
- Non-domestic installations (commercial buildings) up to 44 % of the investment costs
- obligatory heat meters for all subsidised solar installations
- "solar keymark" requirement for subsidised solar installations (otherwise the subsidy is reduced by 25 %)

### Support to the growth of solar manufacturers:

- network of RES companies "Ökoenergie-Cluster", providing support in marketing, training, export, product development etc.
- regional R&D programme and solar research facility ASIC
- networking and co-operation with the building sector

### Leading by example - public buildings:

- solar thermal in most regional public buildings
- the first commercial solar cooling installation in the region

## 3 Results

- 900,000 m<sup>2</sup> (630,000 kW<sub>th</sub>) thermal solar collectors installed (0.65 m<sup>2</sup>/inhabitant)
- a vibrant solar business sector (7 solar manufacturers with a total production of over 400,000 m<sup>2</sup>/year)

## 4 Conclusions

- a "policy package" consisting of legal (= obligations as well as simplification of administrative procedures), financial and training/awareness instruments is the approach most likely to deliver ambitious solar targets
- linking the solar sector closely to the building industry and legislation is a key element
- a constant observation of the market and a regular adjustment of policies is necessary

