

Austria: Thüringerberg

BIODATA

PV community name:	Thüringerberg
Kind of urban area:	Residential – urban
Main building type in community:	Houses - single houses
New/Retrofit/Added:	Added separately to the buildings
Type of project:	-
Start of operation:	Year 2000 (completed in 2003)
City, state, etc.:	Vorarlberg
Country:	Austria
Latitude:	N47 13' 0"
Longitude:	E9 46' 59"

PV SYSTEM CHARACTERISTICS

Total PV power:	146 kW
Number of houses/buildings:	17 (15 single houses, the elementary school and the community centre)
PV power per unit:	Approx. 8,5 kW
Energy yield per year:	Approx. 956 kWh/kW (derived from the data of 5 PV systems in this community over 3 years)
Main PV system type:	Grid-connected - demand side
Main PV application type:	Inclined roof - mounted
Main PV module type:	Framed regular module
Main PV cell type:	Crystalline silicon
PV module manufacturer:	Kyocera, Solar Fabrik, Aspro Power, Atersa, Böhler
Inverter manufacturer:	Fronius, SMA/Sunny Boy, Sputnik/Solar Max
Investment for PV systems:	Approx. 8500 EUR/kW (price from the year 1999) Approx. 7000 EUR/kW (price from the year 2002) Approx. 5900 EUR/kW (price from the year 2003)

OWNERSHIP

Building owner:	Inhabitant
PV owner:	Inhabitant
PV energy user:	Utility (VKW)



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PV COMMUNITY DESCRIPTION

PV Community Brief

Community Thüringerberg is located in Vorarlberg which is the western province of Austria. This community is one of the 6 communities of "das Große Walsertal" biosphere park. Biosphere parks are marked up by UNESCO as model regions for sustainable and economized life. This community is located 890 m above sea level where there is less fog in the winter. The number of habitants is 690; the number of households is 210.

Energieinstitut Vorarlberg coordinated the PV Power plant on the roof of community centre which was implemented in the framework of "SONNENSCHNEIN" campaign. After that some inhabitants wanted to have their own PV systems. The "feed in tariff" gave them the possibility to realize these.

Grid issue

For grid connection, the directives of Utility in Vorarlberg province (VKW) were implemented. Special attention has been given to the protection against lightning. The surplus electricity of community centre, where the first PV system was installed, has been fed into the grid but after coming into force of feed-in tariff system, 100% of generated electricity could be fed into the grid.

Urban planning and architectural issues

Because of landscape protection all PV systems are roof integrated. In the two of the households PV roof tiles were used.

Economic / financial issues

A PV system with a capacity of 1,725 kW (PV Power Plant) has been installed, in February 2000, on the roof of new community centre within the framework of private shareholder programme "SONNENSCHNEIN" campaign which was launched in the Austrian province of Vorarlberg in 1997. The programme was coordinated by the 'Energieinstitut Vorarlberg'. Within this programme private individuals and local governments are encouraged to purchase 'Sonnenscheine' (= 'sun bill'). The price of one share was set at 70 EUR and the installations are supported by means of 30% to 35% rebates from the province of Vorarlberg. For this PV system the householders of community Thüringerberg purchased 175 shares.

In October 2001 the feed in tariff came into force in Vorarlberg. 72 EURcent/kWh for new systems and 50 EURcent/kWh for old systems have been granted for 15 years. This incentive stimulated the residential PV System installations.

15 inhabitants built a "private partnership" and invested in a PV system on the roof of primary school. The shareholders may obtain the money earned from electricity generation at the end of every 6 months.

Other remarks:

Comprehensive information campaigns, technical tours, and education activities accompanied the programme "SONNENSCHNEIN". Moreover, frequent meetings of shareholders and operators ensured that the campaign is kind of a public event. Through this campaign the public interest has increased in Vorarlberg.

COMMUNITY INFORMATION

Project leader company: -

Other project company: -

Project's www: <http://www.solalbert.info>

<http://www.solalbert.info/pv/anlageninfo/index.php?region=1&gemende=1>

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