



**SOLARCHITECTURE**  
building solutions



# The Solar Chalet



**Address**

Gewerbestrasse 4, 3770 Zweisimmen, Switzerland



**Location**

46°33'26" N | 7°22'34" E



**Altitude**

933 MAMSL

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# The house without heating

This house is a pentagonal timber turret where the concept of traditional chalet is re-elaborated with a contemporary attitude. This building was designed as a solar direct energy generating house, meaning that its energy demand is very low and consequently a centralized heating system as well as a controlled ventilation system is not necessary. Heating will be provided through solar passive gains, people and electrical appliances. The walls are made of wood which supports and insulates the building without the need of an additional insulating layer. Even though the roof has an irregular shape, the use of solar shingles with different geometries allows to obtain a homogeneous surface.





Rough sawn facade.



The roof is covered with photovoltaic shingles.

## Energy

		
Active solar surface	130 m <sup>2</sup>	–
Active solar surface ratio	<75 %	–
Peak power	14 kWp	–
Building skin application	Solar tiles	–

### Energy production

**120,000**  
kWh

### Self - consumption

n/a



# Building characteristics

**Building typology**

Residential and administrative

**Construction type**

New

**Year of construction**

2014

**Energy reference surface**

520 m<sup>2</sup>

**Energy index**

19 kWh/m<sup>2</sup>a (heating and electricity)

**Energy labelling**

–



The building is located in the business park.

## BIPV module

**Product**

Sunstyle SolarDach (basic solar shingle)

**Manufacturer**

Sunstyle AG

**Cell technology**

Mono-crystalline

**Cell colour**

Black

**Dimensions**

870x870x6 mm

**Specific power**

up to 162 Wp/m<sup>2</sup>



## Parties involved

### Owner

Regula Trachsel and Sascha Schär

### Architect

N11 Architekten GmbH

### Photovoltaic installer

Sunstyle AG

### Specialist planner

Energiebüro Hanimann

### Photo

N11 Architekten GmbH

## Awards, recognitions & info.

### Awards and recognitions

Constructive Alps 2015 (nomination)

### Building costs

850,000 CHF

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