



# Plus Energy Building

## Küsnacht, Canton Zurich (CH)

### Building Details

#### CONTACTS

##### Owner

Familie Truffer, Küsnacht (ZH)

#### Name

-

#### Website (or e-mail)

##### Architect

Bellevue Studio s.a.r.l.

[www.bellevuestudio.ch](http://www.bellevuestudio.ch)

##### Energy Consultant

Naef Energietechnik, Zürich

[www.naef-energie.ch](http://www.naef-energie.ch)

##### PV Installer

Naef Energietechnik, Zürich

[www.naef-energie.ch](http://www.naef-energie.ch)

#### BUILDING

##### Completion year

2009 Building

2009 PV Plant

##### Category

New

Renovation

Enlargement

Other

##### Typology

Residential

Administration

Industrial

Sport

Agricultural

Urban

Historical

Other

##### Building Energy Performance

kWh/m<sup>2</sup>y

-

#### Description

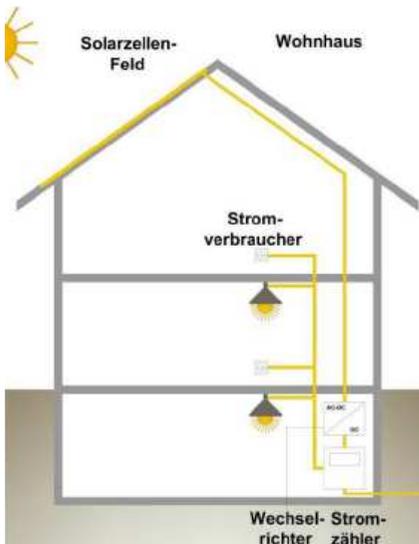
This mono-family house is located in a mountain street near an old vineyard in Küsnacht/ZH. In 2011 it received the Norman Foster Solar Award Diploma as Plus Energy Building. The key-factor of intervention is the PV system perfectly integrated in the south part of roof. The PV power allows an electric energy production of 208% compared to the building energy demand. The energy surplus of 15,000 kWh/y, produced by monocrystalline modules, is fed in to the public grid. The north side of the roof (15 m<sup>2</sup>) is covered with dummy modules. The heating system is provided by a geothermal probe. The thickness of the thermal insulation and triple-glazed windows ensure a high energy efficiency of the building envelope.

#### Acknowledgments

Norman Foster Solar Award 2011



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Solaragentur

## BiPV Details

### LOCATION OF PLANT

<b>Roof</b>	Flat roof	Sloped	Curved
<b>Façade</b>	Cladding	Balcony	Greenhouse Curved
<b>Glass</b>	Façade	Roof	Solar shading Canopy
<b>Orientation</b>	South	West	East North
<b>BiPV System</b>	In-Roof Solar Tiles (PV modules)		

### ARCHITECTURAL EVALUATION

<b>Color</b>	black
<b>Transparency</b>	opaque
<b>Frame</b>	framless

### COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	MODULE LAYERING	MODULE FEATURES	DUMMIES
<b>DESCRIPTION</b>	The north side of the roof (15 m2 ) is covered with dummy modules.		

### SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
<b>PV Module</b>	<b>Cells</b>	-	
	<b>Module</b>	SunPower®, Mounting system Solrif®	
<b>Power</b>	<b>kWp</b>	21.8	
<b>Size</b>	<b>m²</b>	122	
<b>Energy production</b>	<b>kWh/year</b>	23470	
<b>Cost</b>	<b>€/m²</b>	-	