



Kraftwerk B « Plus Energy Haus » Bennau (SZ - CH)

Building Details

CONTACTS

| | Name | Website (or e-mail) |
|-------------------|---------------------|--|
| Owner | Various | www.kraftwerk-b.ch |
| Architect | Grab Architekten AG | www.grabarchitekten.ch |
| Energy Consultant | Amena AG | www.amena.ch |
| PV Installer | N/A | N/A |

BUILDING

| | | | | |
|-----------------|--------------|----------------|-------------|----------|
| Completion year | 2008 | Building | 2008 | PV Plant |
| Category | New | Renovation | Enlargement | Other |
| Typology | Residential | Administration | Industrial | Sport |
| | Agricultural | Urban | Historical | Other |

Description

Already from the beginning of the planning, the intention was to construct an environmentally sustainable multi-family house able to produce the energy needed for its operation. That was accomplished with the integration of photovoltaic on the roof and solar thermal on the facade of the building. The building produces more energy than it needs and therefore the excess of it satisfies some needs of neighboring houses. The photovoltaic modules integrated in the roof have a double function since they replace the conventional tiling material (and without them the building would be incomplete) and they produce energy. The solar collectors replace the opaque part of the facade and therefore give a double function.



BiPV Details

LOCATION OF PLANT

| | | | |
|-------------|-----------|---------|----------------------|
| Roof | Flat roof | Sloped | Curved |
| Façade | Cladding | Balcony | Greenhouse |
| Glass | Façade | Roof | Solar shading Canopy |
| Orientation | South | West | East North |

ARCHITECTURAL EVALUATION

| | |
|------------------|---|
| Color | crystal blue |
| Transparency | opaque |
| Frame | frameless |
| Acknowledgements | Swiss solar prize 2009; Eurosolar 2009; Ökopreis 2009 (Minergie®-P-Eco) |

SPECIFICATION

| | | | |
|-------------------|-----------------|------------------|-----------|
| Photovoltaic | Monocrystalline | Multicrystalline | Thin Film |
| PV Module | Cells | N/A | |
| | Module | EPV Megaslate | |
| Power | kWp | 32 | |
| Size | m ² | 261 | |
| Energy production | kWh/year | 32000 | |