University of Applied Sciences and Arts of Southern Switzerland
Department of Environment Constructions and Design
Institute of Applied Sustainability to the Built Environment

SUPSI

Swiss BiPV Competence Centre

Pitched roof

Private House

Grosshöchstetten, Canton of Berne (CH)

Building Details

CONTACTS	Name	Website (or e-mail)
Owner	private	
Architect	-	
Energy Consultant	Helion Solar	www.helion-solar.ch
PV Installer	Helion Solar	www.helion-solar.ch

BUILDING

Completion year	2013 Building		2013 PV Plant	
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other

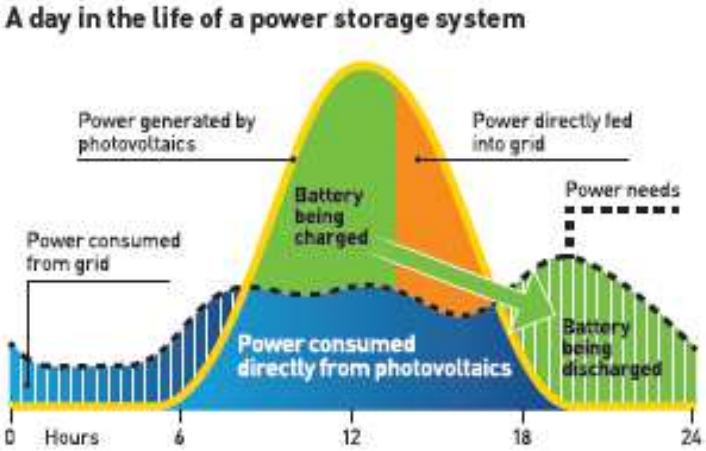
Building Energy Performance **kWh/m² y** -

Description

The PV roof on this residential building, besides to be perfectly integrated with the global architectonic language , is also conceived as an intelligent system for the energy controlling and management.

PV modules are installed for supplying the direct energy needs of residents. The energy part not immediately used is stored in a battery with the aim to increase the self-consumption using almost completely the self-produced energy.

Aknowledgments -



SOURCE: www.helion-solar.ch

BiPV Details

LOCATION OF PLANT

Roof	Flat roof	Sloped	Curved	
Façade	Cladding	Balcony	Greenhouse	Curved
Glass	Façade	Roof	Solar shading	Canopy
Orientation	South	West	East	North
BiPV System	In-Roof solar tiles (Pv modules)			

ARCHITECTURAL EVALUATION

Color	Black
Transparency	opaque
Frame	Framless

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	MODULE LAYERING	MODULE FEATURES	DUMMIES

DESCRIPTION modules without pv installed around the skylight

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	**Cells**	Monokristallin 125 x 125	
	Module	CNPV 205BLK Solrif (n° 132)	
Power	**kWp**	27	
Size	**m²**	168	
Energy production	**kWh/year**	24750	
Cost	**€/m²**	-	