



SOURCE: www.luedi-architekten.ch

Positive Energy House

Innerberg, Canton of Berna (CH)

Building Details

CONTACTS

	Name	Website (or e-mail)
Owner	Christoph Saager	chsaa@bluewin.ch
Architect	Luedi Architectes sàrl, 2502 Bienne	www.luedi-architekten.ch
Energy Consultant	3s Photovoltaic (Meyer	pvsystems.meyerburger.com
PV Installer	-	-

BUILDING

Completion year	1970 Building	2010 PV Plant		
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other

Building Energy Performance kWh/m²y -

Description

The refurbishment of this private building comes from the desire of the owners to have an energy-independent house. The original position of the windows on the roof was corrected and the chimneys have been moved on north side. To satisfy Minergie standard some measures have been adopted: adequate insulation; triple glasses; ventilation system with heat recovery; substitution of diesel heating with heat pump. The PV system is perfectly integrated in the building envelope. Monocrystalline modules, specifically adapted and customized to the façade size, are installed on south side of roof, while fibrocement sheet with the same colour are used on the other sides. The skylight windows, positioned on the same plane, are just distinguishable as well as thermal solar modules on the higher part of roof. This renovation has allowed to reduce energy demand of 80%.

Acknowledgments

Swiss Solar Prize 2012 Cat.: PlusEnergyBuildings



SOURCE: solaragentur.ch



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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	-

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	MODULE LAYERING	MODULE FEATURES	DUMMIES
DESCRIPTION	Shape and size of modules fit the roof pitch		

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	Cells	-	
	Module	3S Photovoltaic. Megaslate	
Power	kWp	15	
Size	m²	103	
Energy production	kWh/year	16500	
Cost	€/m²	-	