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Commercial and multi-family Building

Romanshorn, Canton of Thurgau (CH)

Building Details

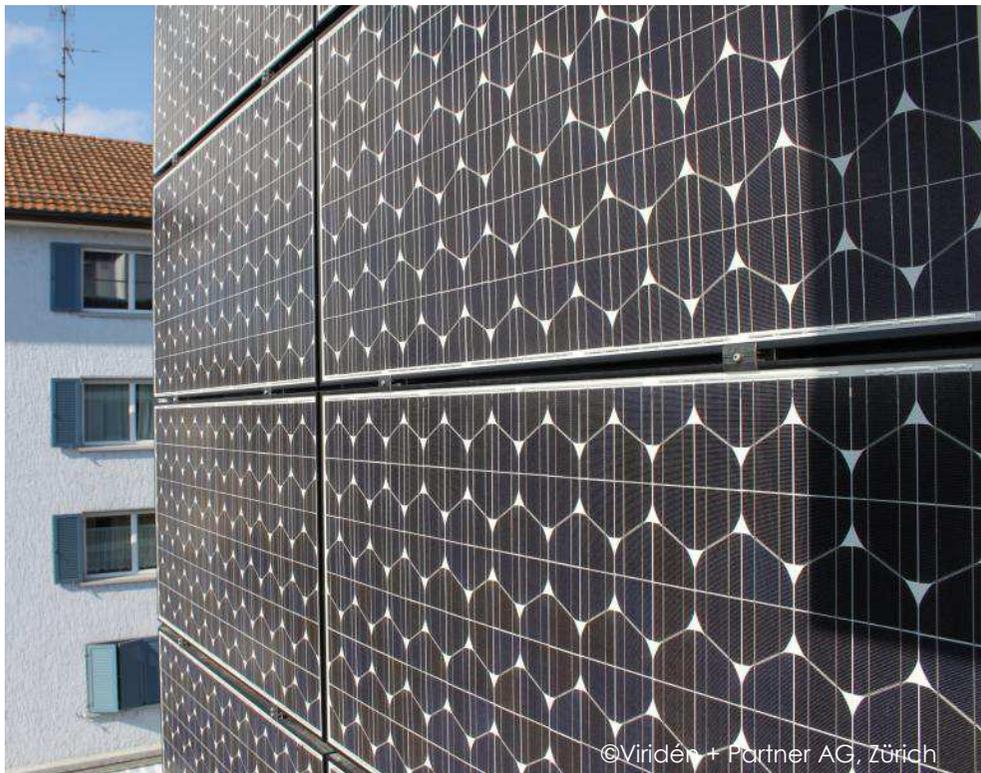
CONTACTS	Name	Website (or e-mail)		
Owner	EcoRenova AG Zürich	www.ecorenova.ch		
Architect	Viriden + Parten AG	www.viriden-parten.ch		
Energy Consultant	Viridén + Partner AG	www.viriden-parten.ch		
PV Installer	HOLINGER SOLAR AG	www.holinger-solar.ch		
BUILDING				
Completion year	1960/1961 Building	2012-2013 PV Plant		
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other
Building Energy Performance	kWh/m²y	-		

Description

This commercial and residential building of 1960's, on a prominent corner in the centre of Romanshorn, has been enlarged and refurbished becoming the largest plus energy building in Switzerland and getting the Swiss Solar Prize 2013.

The number of apartments is quadrupled succeeding to reduce of 70% energy demand. The new building envelope stands out by a total integration of PV antireflection panels, placed in balcony parapets and as frame of large openings, also creating a renovation at urban level. This architectonic and energetic choices (along with the use of triple-glass windows, of solar collector, of heat recovery system,, etc.) allowed a good balance between passive devices and integrated solar technology, according with Minergie-A standard.

Acknowledgments European Solar Prize 2013; Norman Foster Solar Award 2013 PlusEnergieBauten Solarpreis



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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	Façade opaque cladding (cold façade); Balcony; On-Roof Overlapped system (BAPV)			

ARCHITECTURAL EVALUATION

Color	Black
Transparency	opaque
Frame	black anodized aluminum

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	MODULE LAYERING	MODULE FEATURES	DUMMIES
DESCRIPTION	The round shape cell is composed of 4 elements that give a hexagonal pattern, honeycomb.		

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	Cells	thin monocrystalline silicon wafer surrounded by ultra-thin amorphous silicon layers	
	Module	SANYO HIT-H250E01 LG 285N	
Power	kWp	26.3 (roof); 53 (façade)	
Size	m²	146 (roof); 295 (façade); 69 (thermal collector)	
Energy production	kWh/year	89700 (total)	
Cost	€/m²	-	