



Renovation of Weiber family house

Horgen, Canton Zurich (CH)

Building Details

CONTACTS

	Name	Website (or e-mail)
Owner	Ursula und Thomas Weibel	-
Architect	Rychener Partner AG	www.rychenerpartner.ch
Energy Consultant	OLOS AG	www.olos.ch
	Rychener Partner AG	www.rychenerpartner.ch
PV Installer	Gartenmann Engineering AG	www.gae.ch

BUILDING

Completion year	1950 Building	2013 PV Plant		
Category	New	Renovation	Enlargement	Other
Typology	Residential	Administration	Industrial	Sport
	Agricultural	Urban	Historical	Other
Building Energy Performance	kWh/m²y		-	

Description

This private house is located in the village of Horgen, Canton Zurich, and it has been renovated according to Minergie Standard, winning Swiss Solar Prize 2013. The intervention concerned the energy retrofit (insulation of the building envelope and the replacement of the old windows) with the goal to achieve a completely new architectural image. Vertical facades are re-cladded by horizontal slats of larch wood. The existing gabled roof has been replaced on the south side by PV modules perfectly integrated and giving an energetic surplus of 8%. The Nord side is characterized by a green roof, that protect to overheating and give acoustic insulation. The retrofit has reduced 86% of total energy demand.

Acknowledgments Swiss Solar Prize 2013 (Cat.: B - Renovation); standard Minergie A



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	Black frame

COSTUMIZATION LANGUAGE AT COMPONENT SCALE

PV CELL	MODULE LAYERING	MODULE FEATURES	DUMMIES
DESCRIPTION			

SPECIFICATION

Photovoltaic	Monocrystalline	Multicrystalline	Thin Film
PV Module	Cells	-	
	Module	-	
Power	kWp	6.15	
Size	m²	37.5	
Energy production	kWh/year	145	
Cost	€/m²	-	