

Karl Viridén

CEO of Viridén + Partner AG, architectural office

CEO of EcoRenova AG, investor and real estate agency for sustainable building

Project head: SFOE-Lighthouseproject photovoltaic façade on retrofit building

Partner of EU Horizon2020 Projekt: BIPVBOOST

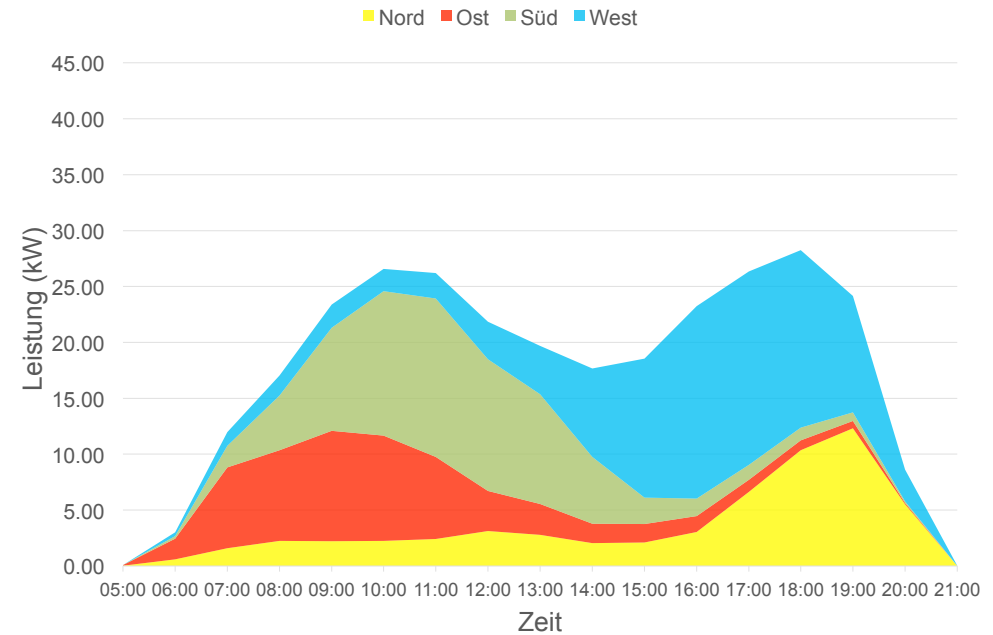
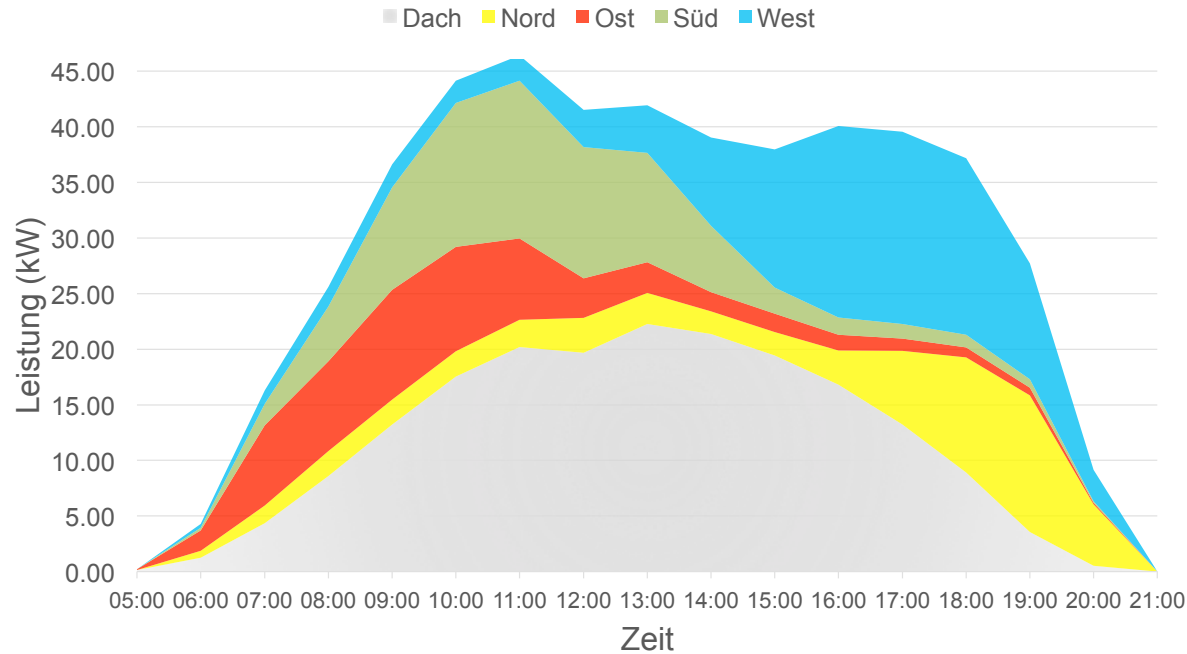
SFOE-Lighthouse: Photovoltaic-panel in the façade – the „active glass façade“

Challenge envelope of the building – condensed from 22 to 30 apartment



SFOE-Lighthouse: Photovoltaic-panel in the façade – the „active glass façade“

Production curve of a sunny day in 2017 june 8th with/without roof (grey)



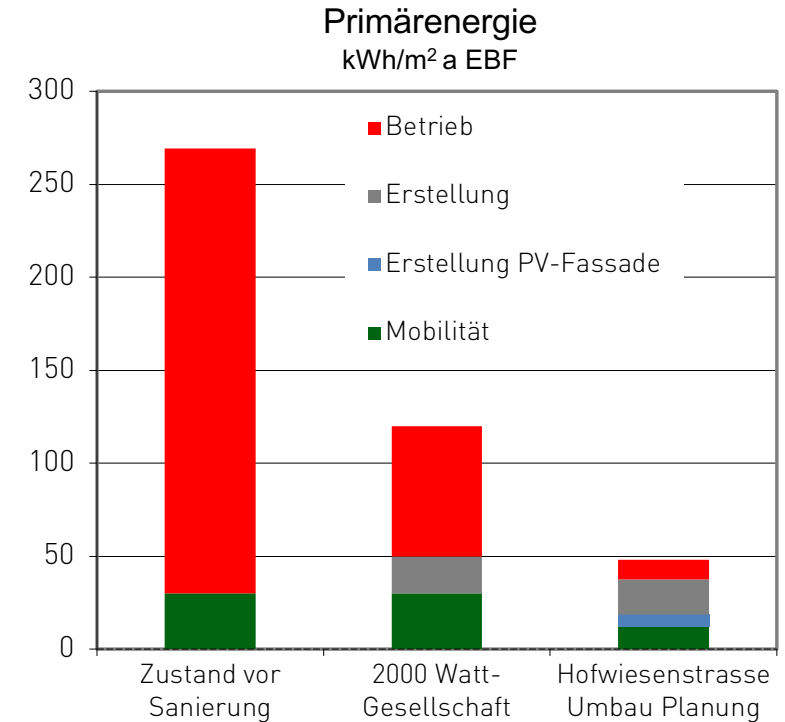
Production of the day: 485 kWh solar: roof 39 %, north 12 %, east 12 %, south 16 %, west 21 %

SFOE-Lighthouse: Photovoltaic-panel in the façade – the „active glass façade“

2000 Watt-Society according to SIA 2040 „SIA energy path“

<i>Wohnen</i>	Primärenergie nicht erneuerbar [kWh/m ² a]		Treibhausgasemissionen [kg CO ₂ -Eq/m ² a]	
	Richtwerte	Benötigt	Richtwerte	Benötigt
Erstellung				
mit PV-Fassade	20	25.3	5.0	6.30
mit normaler Glasfassade		18.8		4.55
Betrieb	70	10.6	5.0	0.55
Mobilität	30	12.1	5.0	2.4
Zielwert	120		15.0	
Gesamt benötigt	48.0		9.2	

<i>Pro Person</i>	Mittlere Leistung der Primärenergie nicht erneuerbar [W/Person]	Jährliche Treibhausgasemission [t CO ₂ -Eq/Person]
Zielwert	830	0.930
Gesamt benötigt	335	0.562



Project „Seewadel“, Affoltern am Albis, Canton Zurich (August 2019)

Reconstruction apartment building with „active glass façade“ to PlusEnergy



BIPVBOOST Horizon 2020 project

Overall objective

Bringing down costs of building-integrated photovoltaic (BIPV) solutions and processes along the value chain, enabling the compliance with the main market requirements and contributing to a widespread implementation in nZEBs.

Challenge:

BIPV market hindered by the difficulties of the industry in providing holistic solutions complying with key demands from the market:

- Aesthetics
- Flexibility of design
- Cost-effectiveness

Activities:

BIPVBOOST will implement short-and medium-term cost reduction roadmaps along the BIPV value chain by means of:

- Flexible and automated BIPV manufacturing process
- Large portfolio of multifunctional BIPV products
- Digitalized process and energy management system along the value chain
- Advanced standardization activities supporting the qualification of BIPV systems for a massive implementation in the building skin

Project Partners



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Project Coordinator

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Dr. Maider Machado
TECNALIA
maider.machado@tecnalia.com
www.tecnalia.com



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