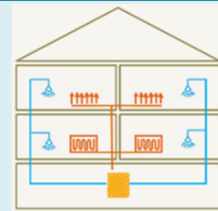


“Plus energy house”, Switzerland

After extensive renovation, this multi-family house in Zurich turned into a “plus energy house”, meaning that it generates more energy than it consumes.



Fx.x

Key facts**Buildings**

Location	Zurich, Switzerland
First Construction	1982
Renovation	2016
Project type	retrofit
Heat distribution	-
Heated space	2870 m ²
No. of apartments	28
Level of insulation	very good

Heat pump and source

Number of	3
Operation mode	-
Heat source	air
Installed power	3 x 32.85 kW
Flow temperature	62°C

Heating system

Heat demand	13.3 kWh/m ² a
Heating temperature	12°C

Domestic hot water

Type of system	central
Max. temperature	12°C

Other information

Seasonal Coefficient of Performance	5.2
Refrigerant	-

Lessons learned

Picture: © Viridén + Partner AG / Nina Mann, Zürich

The multi-family house was built in 1982 per solid construction on a corner plot. The property with now 28 dwellings and two offices has undergone extensive renovations in the year 2016 and enlarged by two stories. The building envelope was renovated with energetics in mind and was provided with a ventilated façade. The building-specific installations in the interior of the multi-family house were renewed completely. Among others, a new ventilation system with a central ventilation unit as well as three air split heat pumps for energy generation on the flat roof were installed.