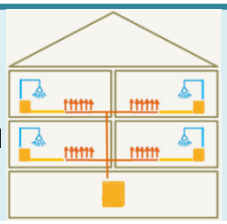
# Hemer, Germany

F2.1

## Full renovation and new, clean heating

The aim of this project was to protect the climate, increase security of supply and strengthen regional value creation at the same time.



## Key facts

**Buildings**

| | |
|---|---|
| Location | *Hemer, Germany* |
| Construction | *1952* |
| Project type | *retrofit* |
| Heat distribution | *underfloor* |
| Heated space | *616 m² total* |
| No. of apartments | 9 |
| Insulations | *retrofitted* |

**Heat pump and source**

| | |
|---|---|
| Number of | *9 + 1* |
| Heat source | *recovered waste heat + air* |
| Type of system | *individual* |
| Capacity | *40kW* |
| Model | *Dimplex LA 40TU* |

**Space and Domestic hot water heating**

| | |
|---|---|
| Heating temperature | *35°C* |
| Heat output via | *underfloor heating* |

When you're looking for a new flat to rent, the heating costs matter. In Germany's western Sauerland region, non-profit housing association Hemer eG knew this, and made sustainable and affordable heating a priority when renovating a residential building in Hemer.

It decided to put in nine decentralised ventilation heat pumps, one per apartment – covering 616 m² of living space - to be used both for ventilation and for hot water from recovered waste heat. A modern air-to-water heat pump provided central underfloor heating. These replaced the old water heater and gas condensing technology.

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## Description of the technical concept

The advantages of the compact hot water ventilation system made it easy for the installer: no new hot water pipes had to be laid through the entire building; instead, preparation and extraction are each located within one flat. This also greatly reduces energy losses. The short distances also made it unnecessary to install circulation pipes.

> "The house was built in 1952 and was half empty, That's why we carried out a full refurbishment and rebuilt the staircases."

- Peter Meyer, spokesman for the Board of Directors of Hemer eG.

> "The flats, which range in size from 50 to 110 $m^2$, have been fully rented again since the first 'groundbreaking' of the project. In addition, the tenants feel very comfortable in their new home, also due to the good indoor climate,"

- Peter Meyer

Pictures: ehpa - https://www.ehpa.org/news-and-resources/publications/heat-pumps-and-high-rise-homes-case-studies-from-across-europe/