

Decentralized warm water preparation



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Base

The buildings at the Science and Technology Park Adlershof must become more energy-efficient, especially in terms of heat supply. During the concept phase from 2017 to 2019, measures to reduce heat consumption were identified.

Major savings potential was identified in warm water preparation for showers in large buildings. Most buildings in Adlershof are supplied by district heating. The length of the pipes from the heating distribution station to the individual showers can be very long. This results in high heat losses, especially during the summer, as there is no other heat demand in the building at this time of year.

Objectives

- Efficiency improvements in heat supply
- Cost and energy savings
- Gaining expertise
- Demonstrating effectiveness
- Transfer of the concept to other properties in Adlershof

Implementation

In one of WISTA's technology buildings, hot water heating for showers got decentralized. The showers are only used about once a day and the length of the pipe from the heating distribution station to the showers is around 150 m. This results in heat losses of around 20 MWh per year. To avoid these losses, electric boilers were installed close to the showers, and the hot water pipe was shut down.

The effectiveness of the measure is evaluated from 2023 to 2027 in collaboration with RWTH Aachen University.

Impact

1. Demand driven heat supply
2. Decrease of heat consumption

Project period

2017 to 2019:

Concept phase

2020:

Implementation phase

2023 to 2027:

Monitoring phase

Project partner

E.ON Energy
Research Center **ERC**

RWTH AACHEN
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