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## HUBER Solutions for Wastewater Heat Recovery from Sewers



Wastewater contains thermal energy, and we can recover some of this energy with heat pumps. Heat pumps work like a refrigerator: they withdraw heat from a lower-temperature medium, thereby cooling it, and transfer the heat to a warmer medium, thereby warming it further.

The lower the temperature difference between the two media, the higher is the energy efficiency ratio of the heat pump, which is the ratio of its heat yield, divided by its power consumption, and is in a range between 4 and 6 for low-temperature heat recovery from wastewater.

Due to its low temperature of 10° to 25°C during summer wastewater is also an ideal heat sink. The process is just running in the opposite direction and withdraws heat from the building into the wastewater which is minimally heated.

The use of wastewater for heating and cooling provides therefore an economic and efficient solution. It leads to a reduced use of primary energy and reduced CO<sub>2</sub> emissions.

### We offer various HUBER Solutions for wastewater heat recovery:

- **Local and short heat loops in buildings** (decentralized heat recovery)
- **Heat recovery from sewers** (heating and cooling with HUBER Solution ThermWin)
- **Heat recovery from STP effluent** (heating and sludge drying at central wastewater treatment plants)

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