
NECKARPARK STUTTGART: DISTRICT HEAT FROM WASTE WATER

Building on knowledge



The NeckarPark district over the years



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The NeckarPark district over the years



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The NeckarPark district over the years



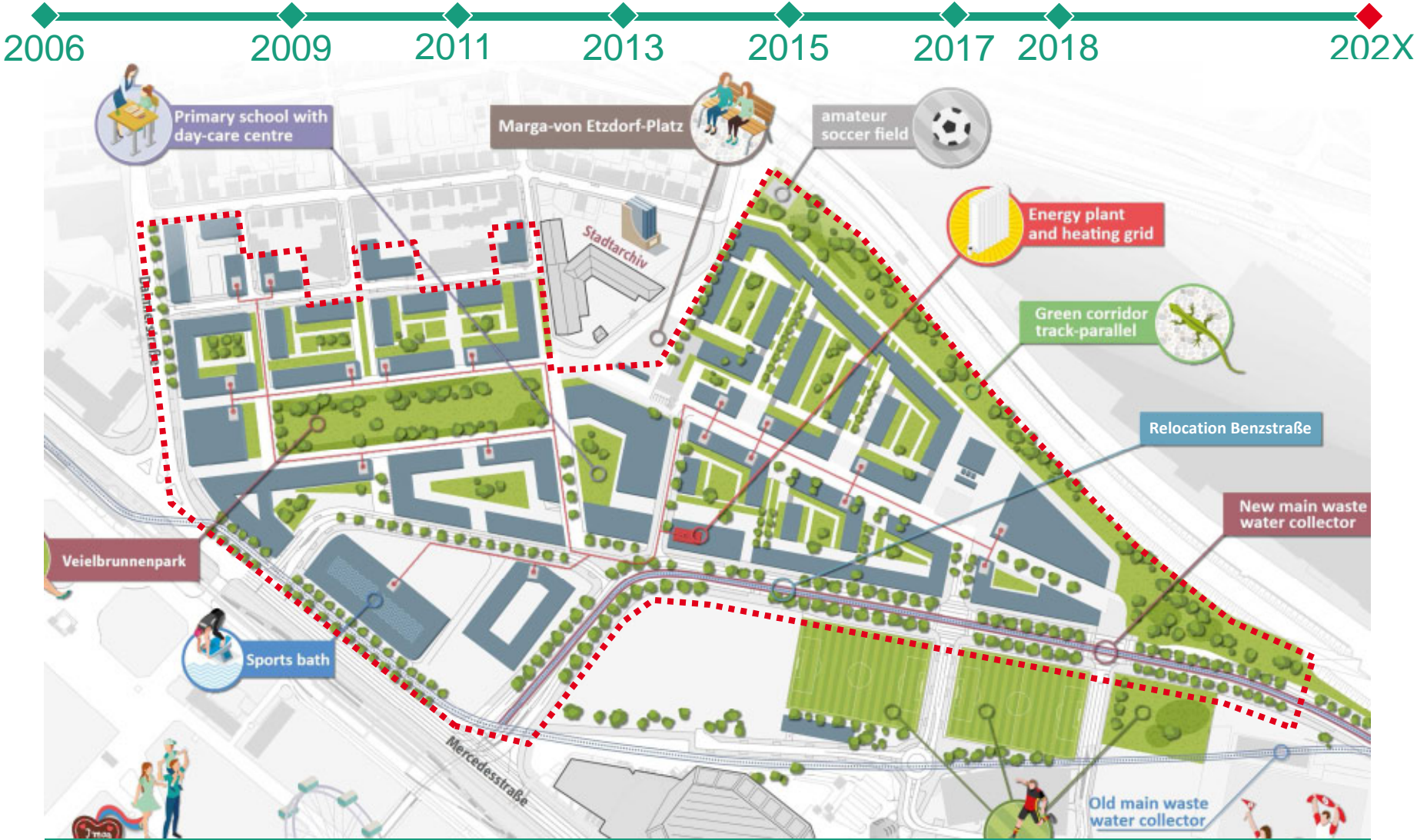
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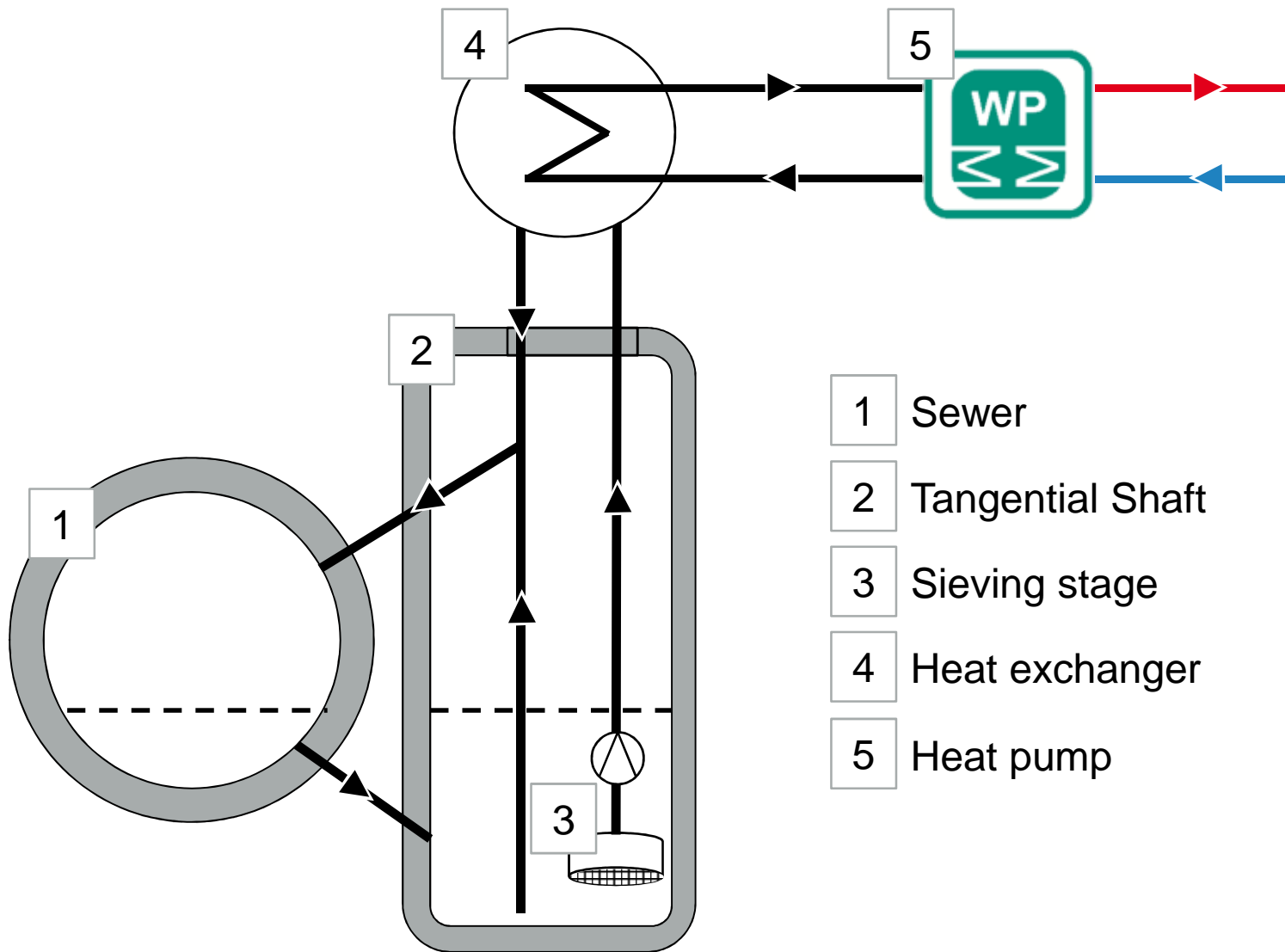


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The future NeckarPark district

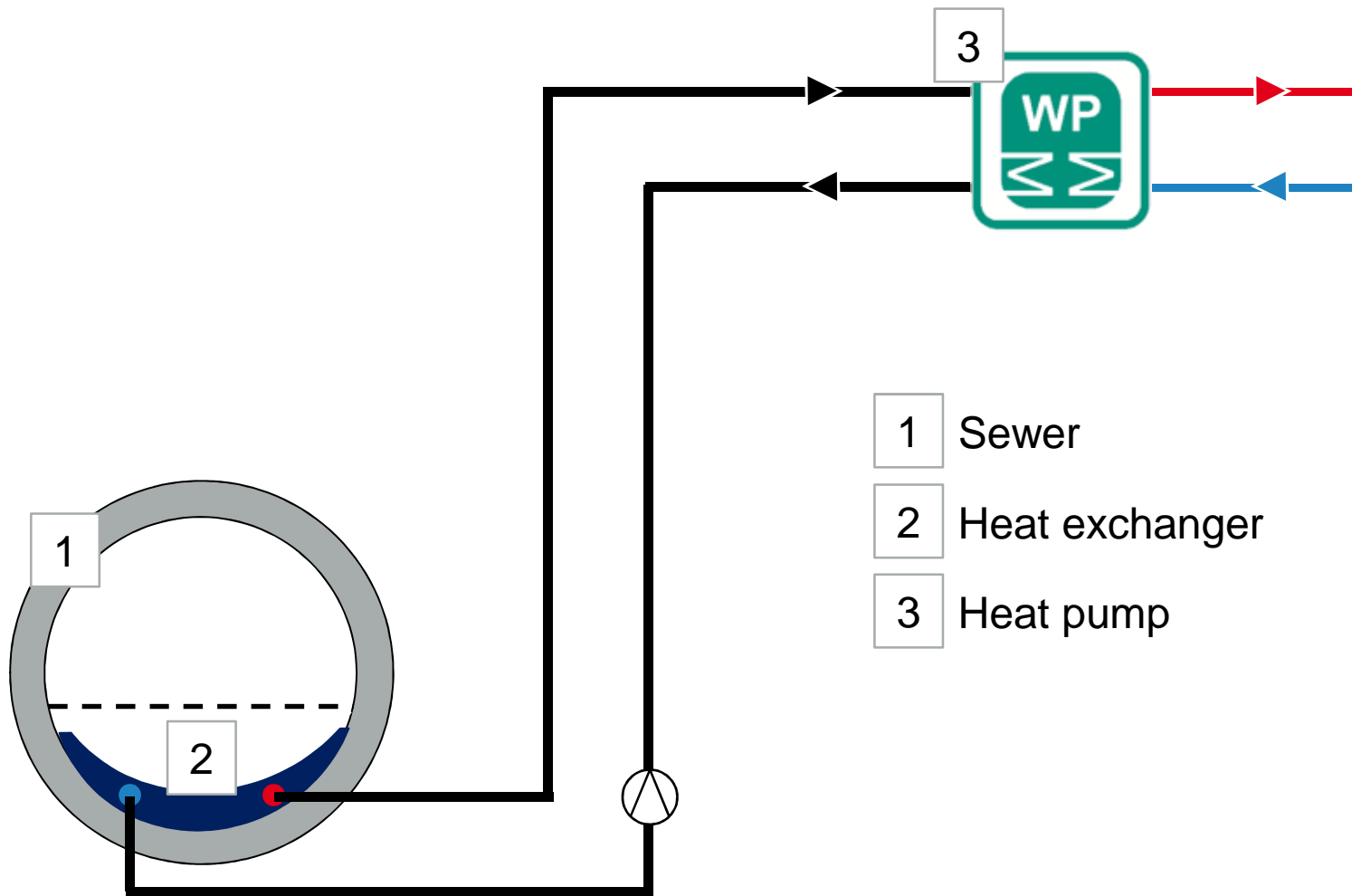


Heat recovery from sieved wastewater

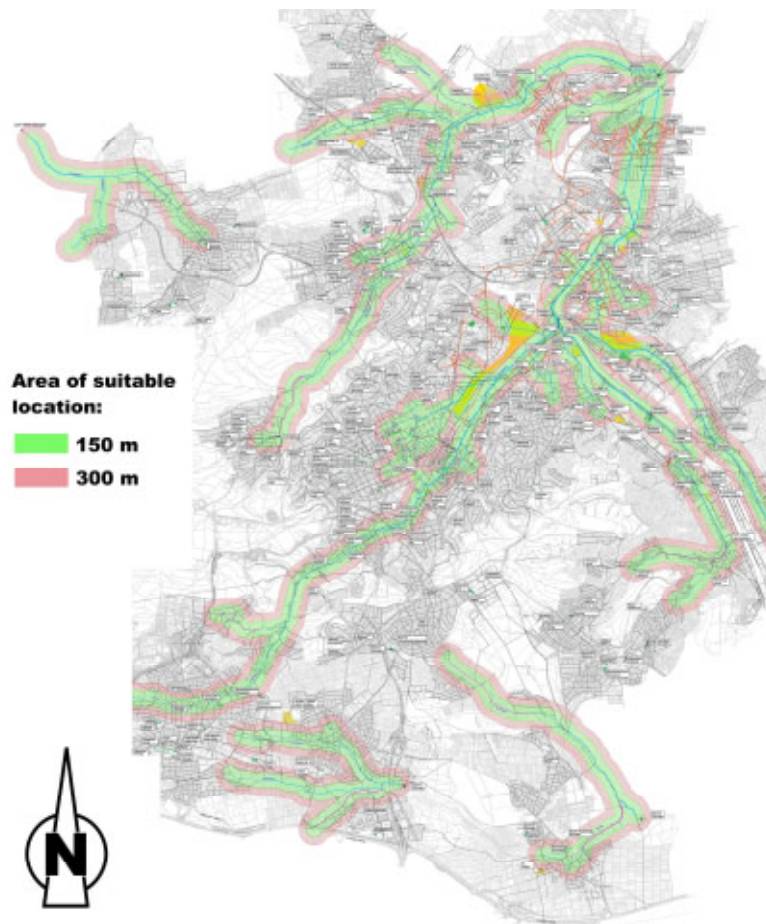


- 1 Sewer
- 2 Tangential Shaft
- 3 Sieving stage
- 4 Heat exchanger
- 5 Heat pump

Heat recovery with sewer-integrated heat exchanger



Boundary conditions for the use of wastewater heat



- Suitable sewers for wastewater heat recovery:
 - average dry weather discharge of at least 15 l/s
 - a diameter of DN 800 or larger
 - distance between the property to be supplied and the sewer should not exceed 300 m (preferably, 150 m)

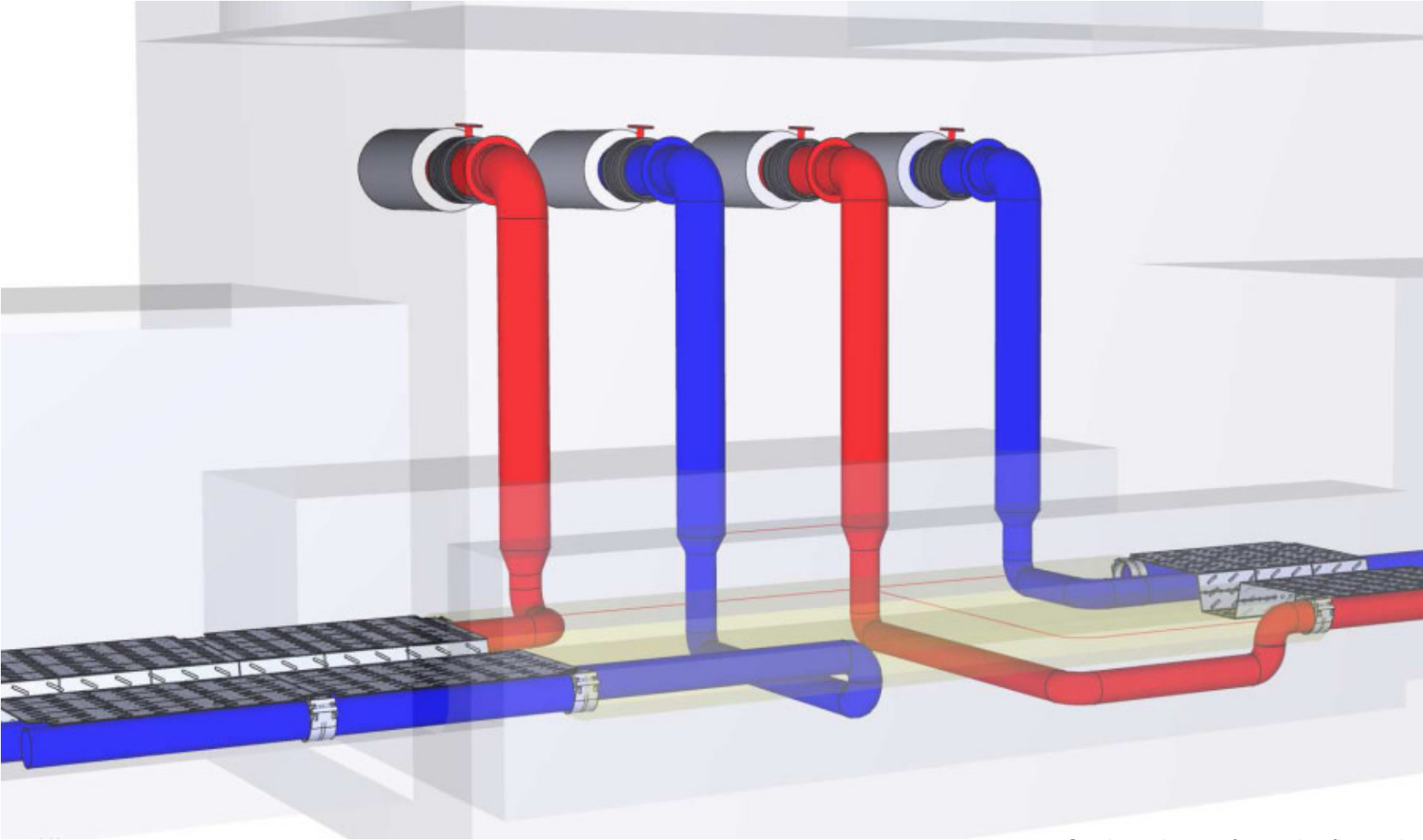
Sewer performance in the NeckarPark



The wastewater heat exchanger

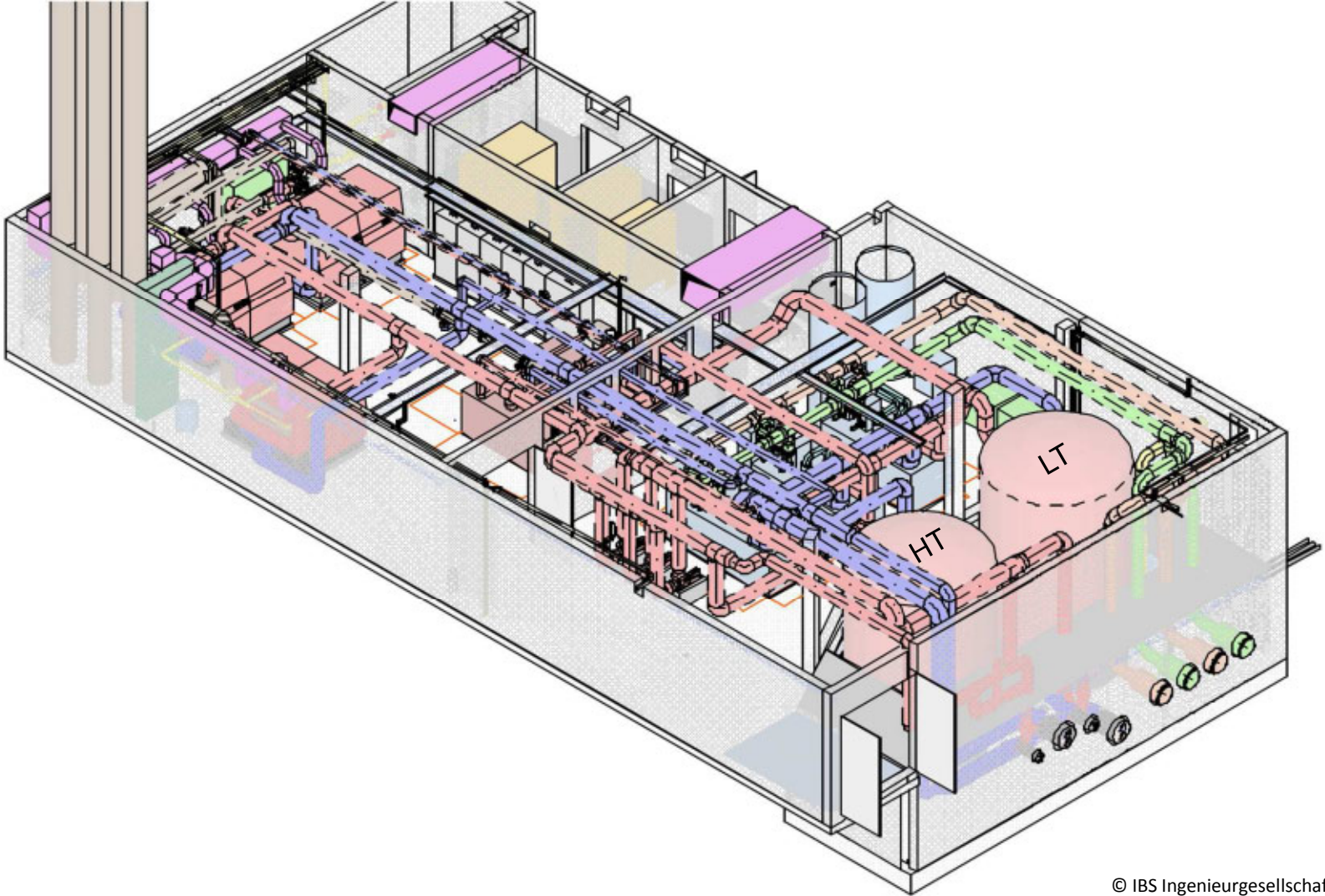


Conduit exit construction



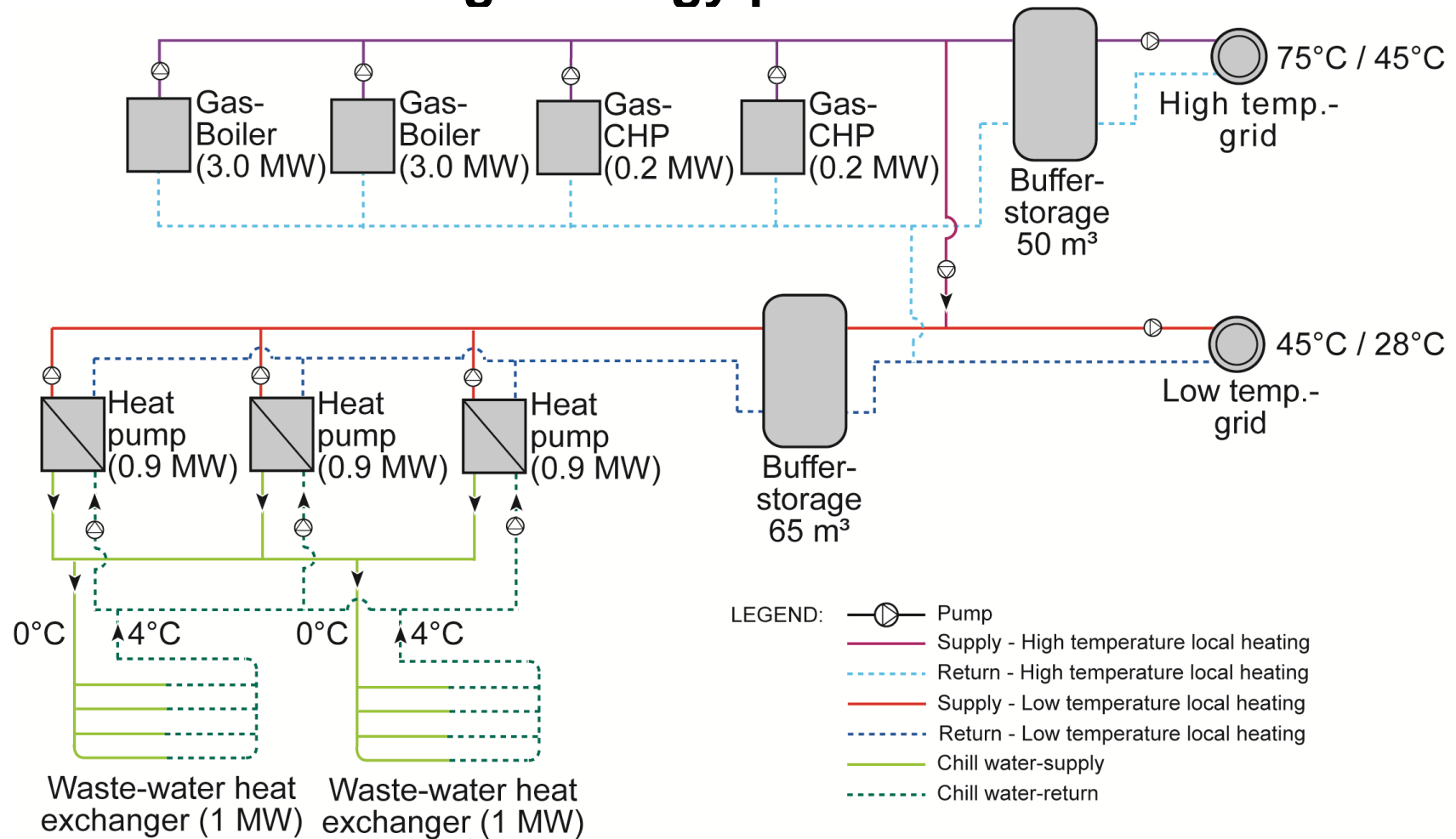
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Energy plant

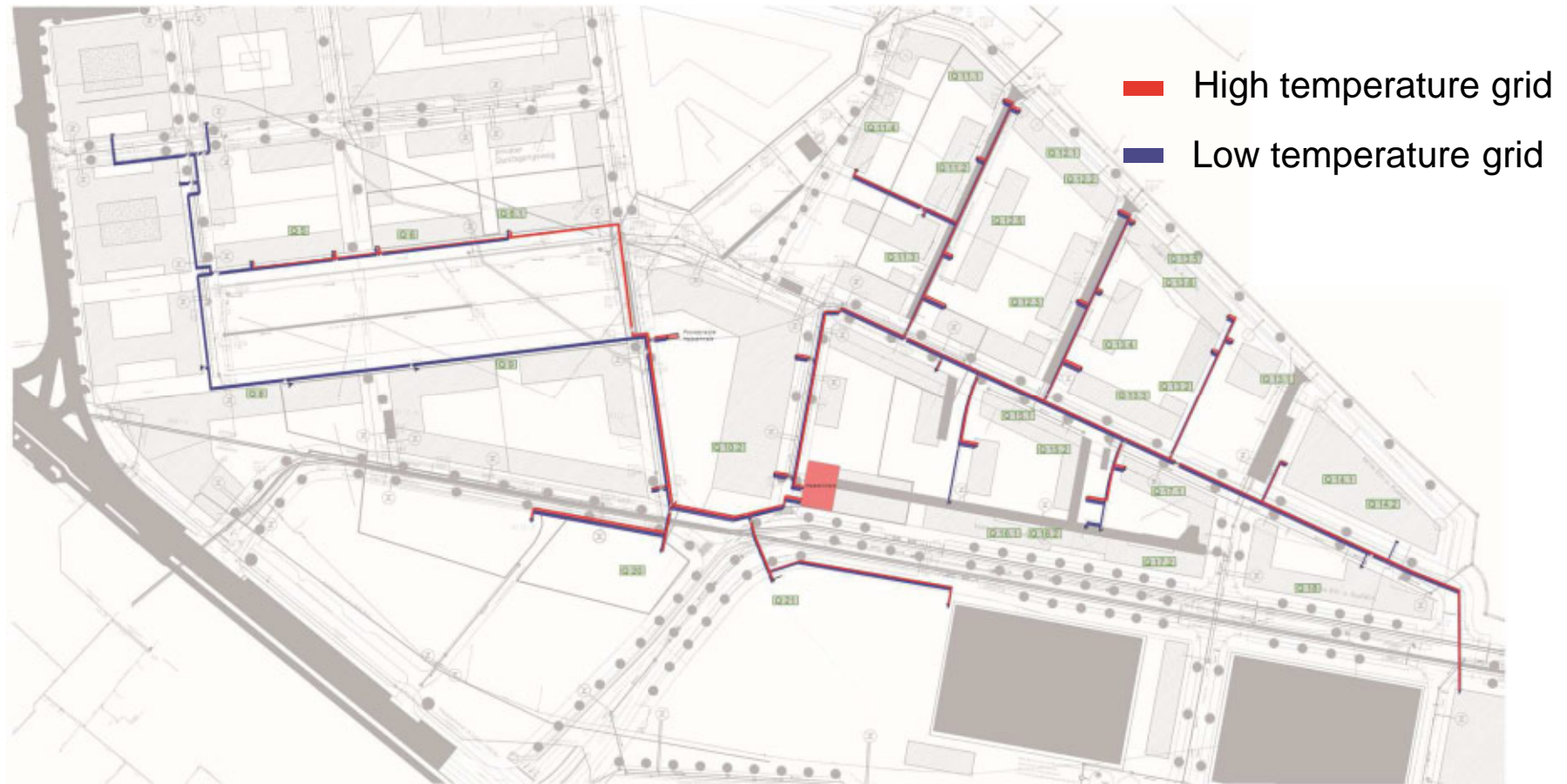


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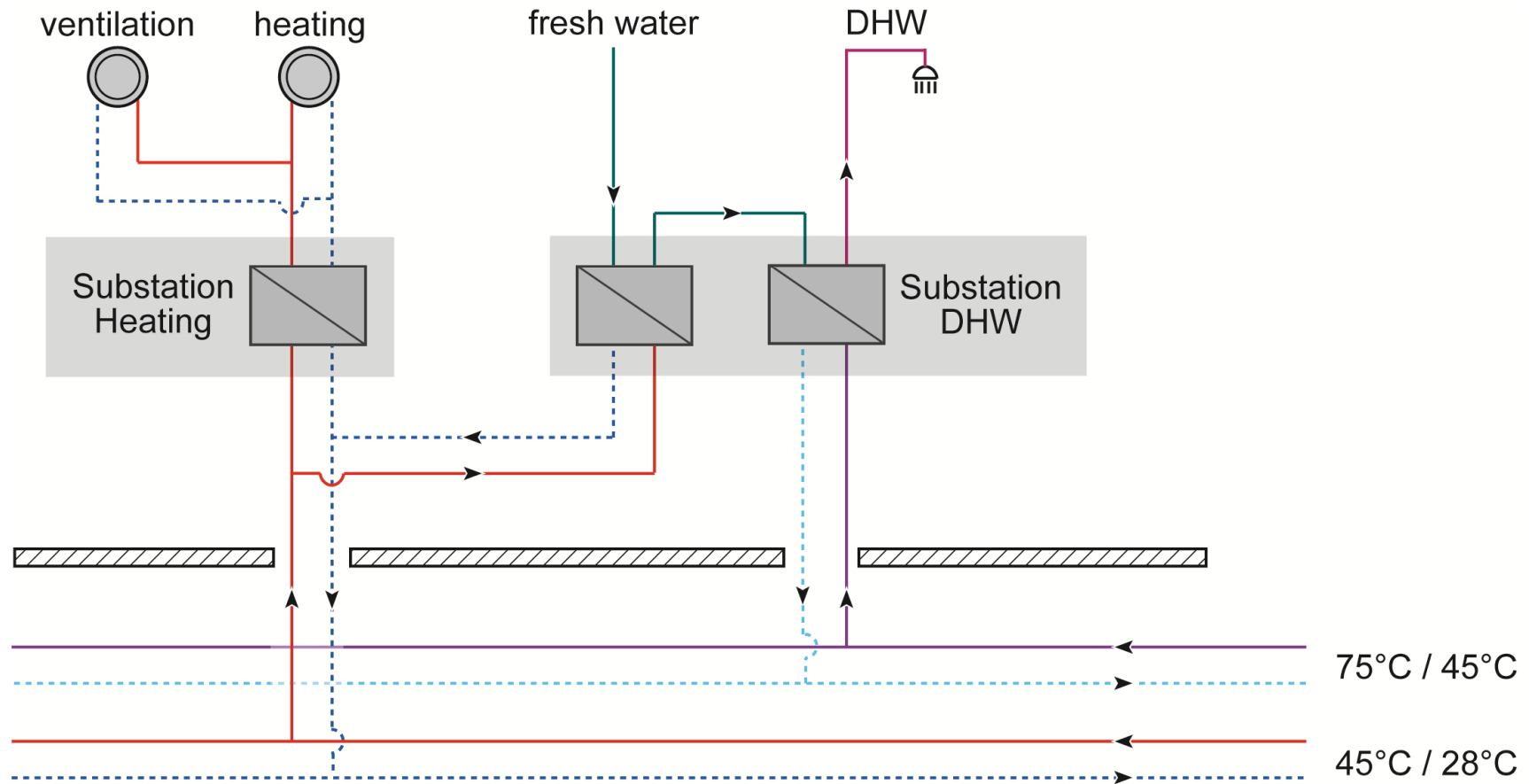
Schematic drawing – energy plant



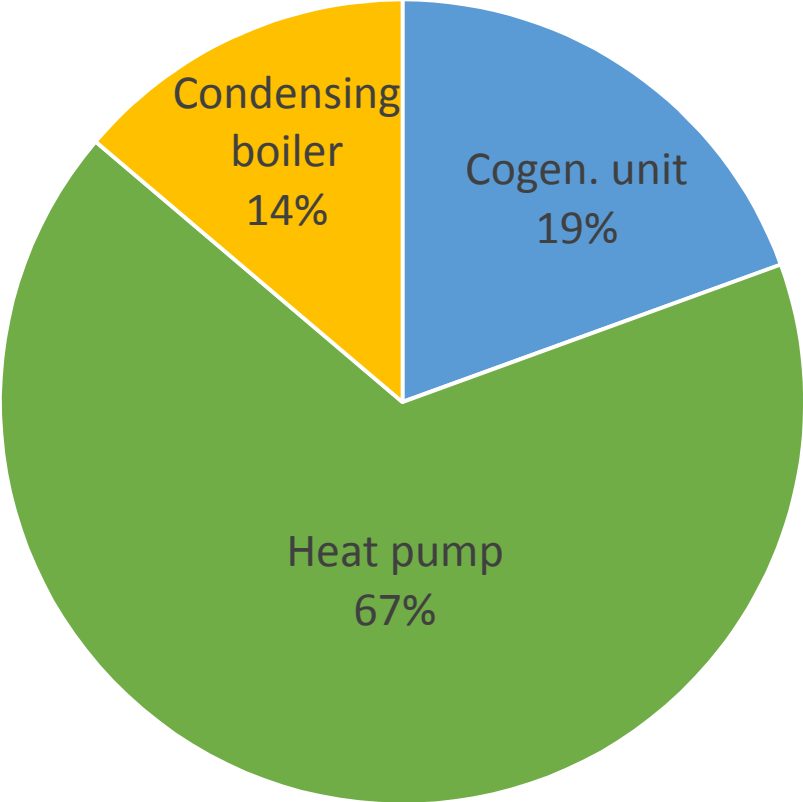
Local heating grid



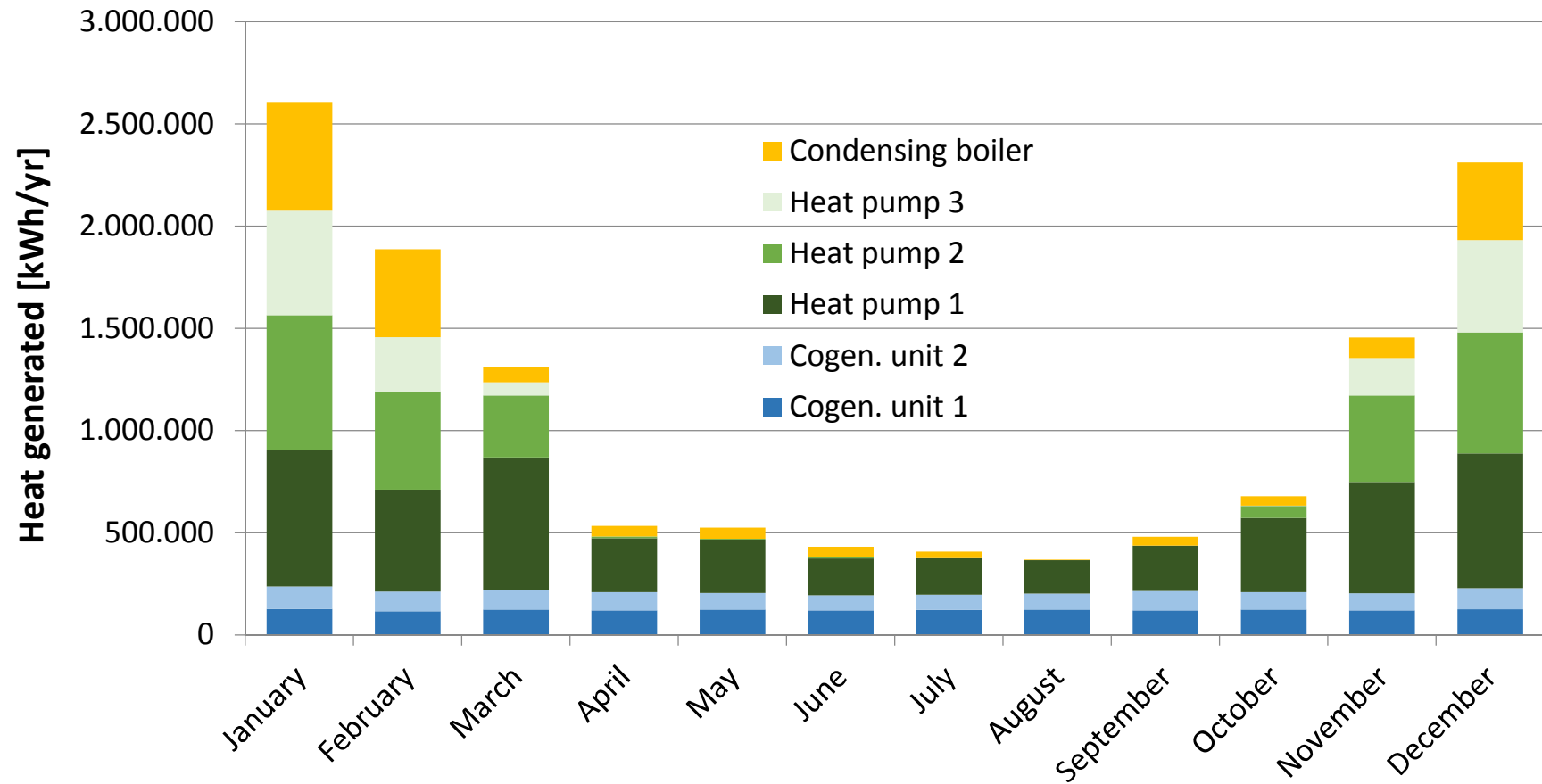
Schematic drawing – substations in the buildings



Simulation of heat generation



Simulation of heat generation



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The research project

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- Project partners:

- State capital Stuttgart



- Fraunhofer IBP



- Ingenieurbüro Schule für Energie- und Gebäudetechnik



- Klinger und Partner Ingenieurbüro



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