

# 19EHP Congress – DHC for All – Involving Citizens, Customers and Consumers

8th May 2019

## What can district heating do for the housing sector?

**District heating as part of the solution for greenhouse gas mitigation.**



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# Many contradictory challenges for the housing sector

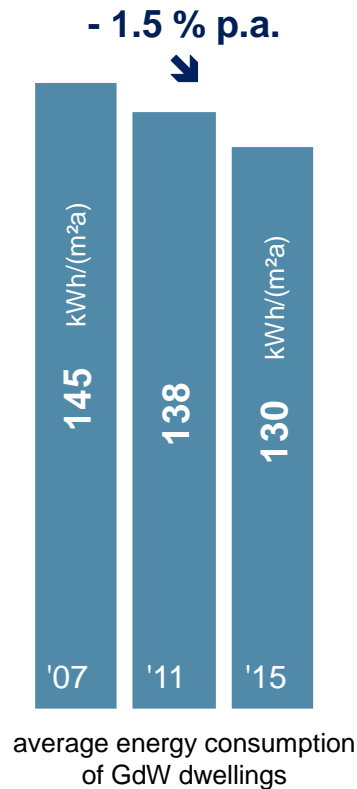
Policy	Goal
Climate protection	High greenhouse gas reductions
Energy efficiency	High final energy savings
Renewable energies	High shares of heat and power supply
Housing costs	<b>New construction:</b> 6.5 EUR/m <sup>2</sup> rent for social housing <b>Stock:</b> no rent increase due to the energy modernisation
Age-appropriate housing	Required: 3 million dwellings in 2020
Integration	Social cohesion in mixed neighbourhoods

# Reduction of energy consumption in energetical renovated buildings

(average “temperature-adjusted” energy consumption per heated m<sup>2</sup> of living space and year for heating and hot water)

## all GdW dwellings

(Addition of the decentralised heated housing units)



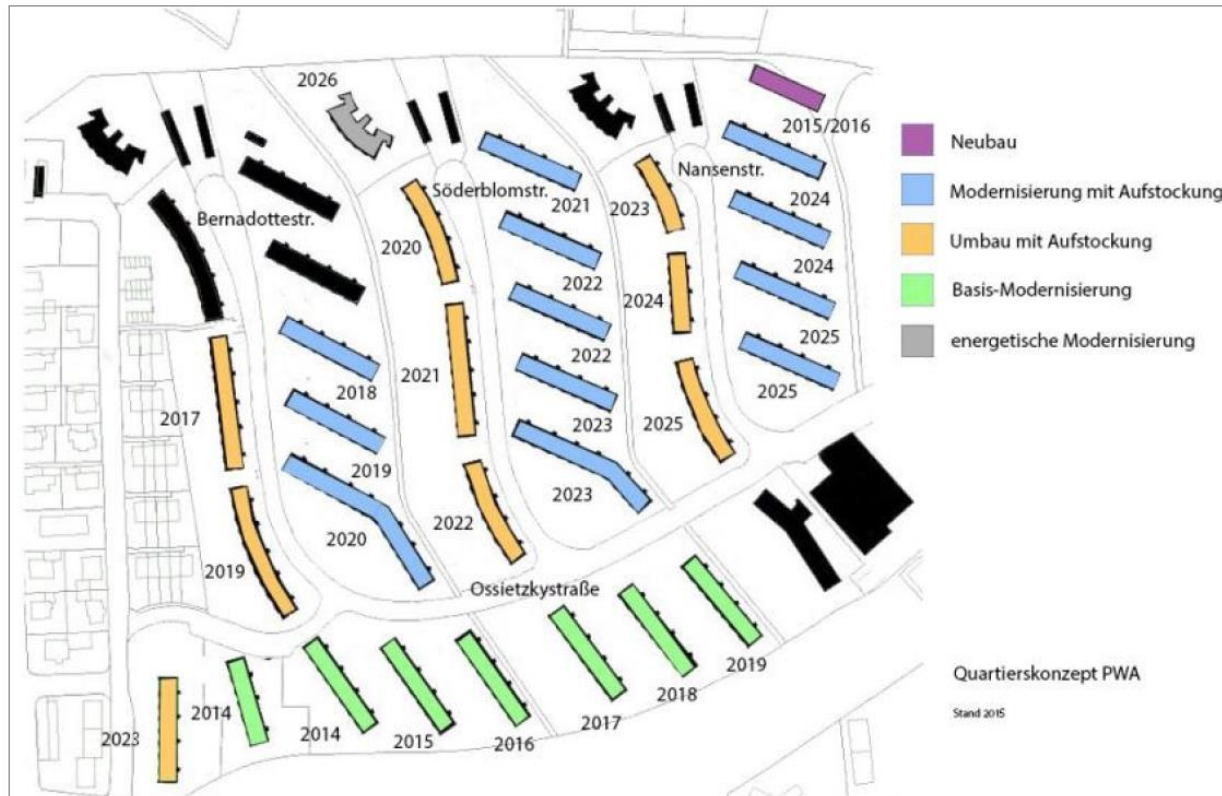
## GdW dwellings differentiated by energy source



# Energy district concepts

Example: Reduction of final energy for heating and hot water preparation with an existing district heating supply with  $f_p = 0$

## Quartierskonzept PWA



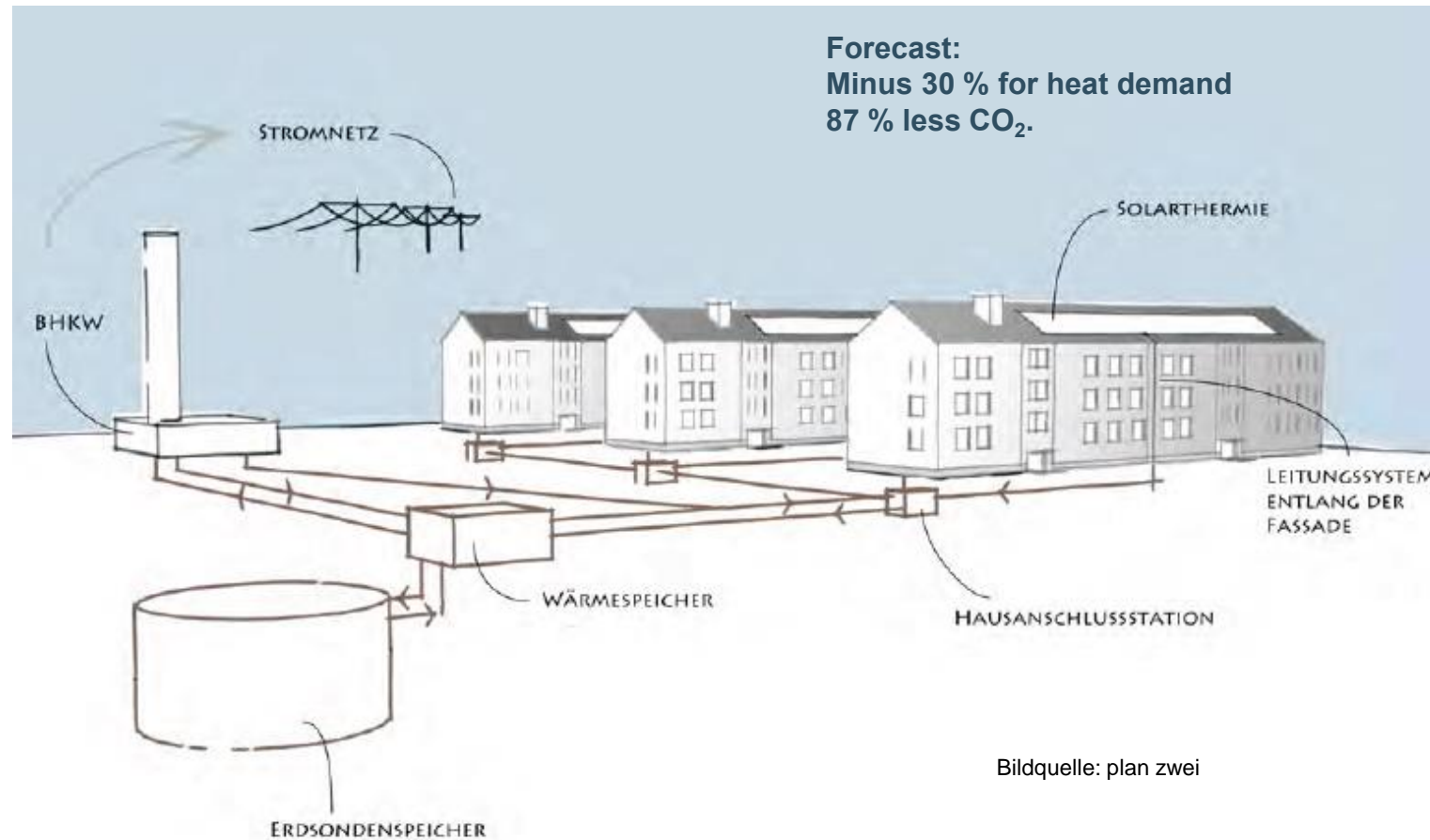
**But:** In future it will no longer be the primary energy factor that will be decisive, but the greenhouse gas emissions.

**Goal:** Minimal emissions with a cost optimum from reducing consumption and energy supply

Source: wbg Nürnberg

# Energy district concepts

Example district heating solution – Goal: CO<sub>2</sub>-reduction and stabilisation of energy costs



Bildquelle: plan zwei

Example Gemeinnützige Baugesellschaft zu Hildesheim (gbg)  
Large housing estate Drispensstedt

# Summary

- Housing companies are caught between practical housing requirements and political goals
- Profitability and social compatibility as well as the occurrence of planned results is essential (monitoring!)
- Housing companies have already tapped considerable energy savings potentials, of which some have largely been exhausted
- Even more will not result in more – no further increases in energy standards (limited investment volume, arithmetical savings practically don't occur like that)
- District heating is part of the solution
- The housing sector requires
  - a) a transparent overview of the GHG-emissions of district heating grids
  - b) affordable district heating with the lowest possible greenhouse gas emissions



Concepts are sought for the housing stock, which offer a climate-friendly power and heat supply at predictable and acceptable costs and which maintain the security of energy supply.

