The future role of DHC for the housing sector in Germany

Guido Schwarzendahl
In 2006 the cooperative was originated out of a merger of two different cooperatives (one was an older cooperative – established in 1910, the other one was a cooperative established in 1954 with prefabricated buildings);

Today represented at four cities in the southern part of Saxony-Anhalt which was a former part of the GDR.

Number of dwellings: more than 7,800 dwellings in ownership of the cooperative. Additionally a subsidiary company manages the administration of 2,500 condominiums.

Dwellings with DHC supply are: 4,660 in three cities (with three different suppliers).
Introduction Bauverein Halle

- The cooperative was effected by the massive shrinking process in the former GDR. We are an active partner in the city-shrinking-process. Current status: Demolition of nearly 1,900 flats, refurbishment of more than 1,100 flats. Current status: modernized 70 %, partially modernized 30 %, no modernization less than 1 % of all residential buildings.

- More than 1,231 flats are situated in listed buildings, 100 % are modernized! The vacancy is now 9,4 %, was up to 30 %!
In our cooperative the demolishing of building aims mainly on the prefabricated residential buildings in the satellite towns as Halle-Neustadt. So the municipal works lost 1,900 flats to supply with district heating which means more than 100,000 m² living space (11,872 MWh/a).
Principle advantage and challenge

- The principal advantage is no air pollution at the place of delivery/consumption and the cogeneration with a CO2 reduction which is essential for new building standards and the higher KfW subsidies for energy-related modernisation.

- Due to the historical evolution of city-development the former GDR is still better supplied with district heating systems. According to the GdW (Federal Association of housing companies in Germany) ¾ of all residential buildings of housing companies in the former GDR use district heating, while less than 1/3 uses district heating in the former Western Germany.

- So in the former GDR there are strong ties between housing companies and municipal works, which deliver the district heating. The challenge is the shrinking number of houses and the higher efficiency of the remaining buildings. Both result in a significant loss of consumption.
Housing cooperatives have to face the discussion of sustainability in Germany and in general are forced to lower the energy consumption.

Energy system transformation goals in Germany: 2020 lower 20% of heat requirement; 2050 climate neutral (decrease of 80% primary energy consumption); double the energetic modernization (1% -> 2%/a).

Big goals need a strong partnership. In the satellite towns of Halle district-heating is widely spread. Nearly 100% of the residential buildings are supplied by district heating.
Energetic strategy of the Housing Sector:

- Reducing consumption under economically viable conditions.
- Advise the tenants in energy-optimized behaviour.
- Cover the remaining consumption by renewable energies.
- Fair and functional competition guaranteeing reasonable prices.
Main issues of the housing sector

- In the event of new construction and modernization of residential buildings housing companies have to decide for the most beneficial heating-option.

- The potential of cogeneration meets the requirements of the German Building laws to fulfill new building standards. District heating companies have already seen the advantages for the housing sector and calculated and communicated the low primary energy factors to satisfy the regulation of the Energieeinsparverordnung (EnEV = Energy Savings Ordinance).

- Due to the grid bound system district heating is not everywhere available (restriction for new construction) and a disadvantage for the district heating supplier is the comprehensive modernization of residential buildings within the grid. This leads to decreasing energy consumption and increasing prices.
Main issues of the housing sector

- In German cities the municipal works often uses district heating priority statutes to prevent an economic dilemma: grid bound systems and the security of investment on the one hand and fair and functional competition in supplying heat for the housing sector on the other hand.

- The housing sector therefore aims for flexible, affordable and accessible solutions.

- The district heating is a highly estimated supply system. A permanent threat are increasing prices due to modernization of buildings or a shrinking number of buildings to supply. Superimportant will be the combination of grid bound systems and local systems for heat supply. Both should be a potential market of the future for district heating suppliers.

- District heating suppliers should take into account the future needs of the housing sector. The housing sector is a naturally ally to the district heating suppliers!
Thank you for listening!