

## Key results of BDEW study on the heat market - with focus on natural gas as an energy source

### This is how Germans heated their homes in 2019

On behalf of the BDEW (German Association of Energy and Water Industries), prolytics market research GmbH carried out a study of the German heat market structure, covering buildings, heating systems and energy sources.<sup>1</sup> Based on this, valid statements can be made regarding the heating systems and energy sources used in buildings as well as the age of the appliances installed. From a basis of around 18.9 million residential buildings with 40.6 million apartments, the sample (n = 5,653) was selected so as to achieve the greatest possible regional coverage. Data and results are representative of 98 per cent of the entire building stock in Germany.

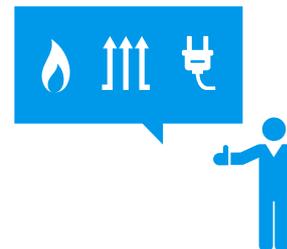
#### Energy sources on the heating market

Grid-based energy supply, i.e. natural gas district energy or electricity, is used for heat production in about two-thirds of all apartments. Natural gas accounts for the largest share by far in the German housing market.



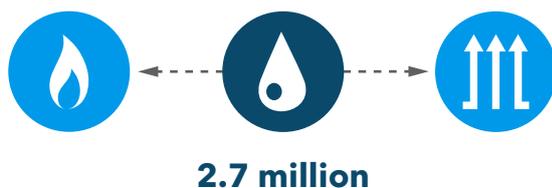
#### Image and customer satisfaction

The residents surveyed rated grid-based heating systems (e.g. using natural gas) consistently positive.



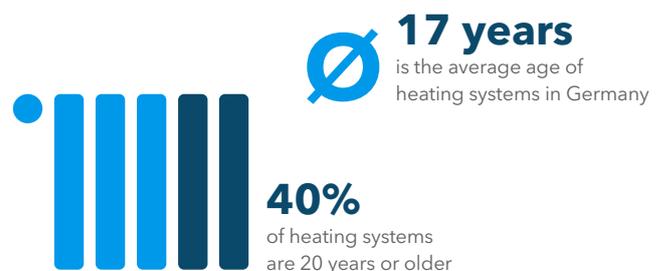
#### Switching potential

There is great switching potential when renewing heating systems in connection with fuel choice. 2.7 million residential buildings currently supplied with fuel oil could easily be connected to natural gas or the district heating network and thus heated in a more environmentally friendly way. The infrastructure required for this is already available and ready for immediate use.



#### Age of heating systems

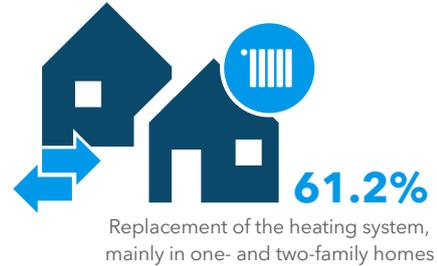
On average, heating systems in Germany are 17 years old. 40 per cent of apartments have appliances that are 20 years old or older and should be replaced. Although there is a chance to significantly reduce CO<sub>2</sub> emissions through renewing the existing heating systems, the need for modernisation in the heating market remains high.



<sup>1</sup> Published in October 2019

**Energy-efficiency measures**

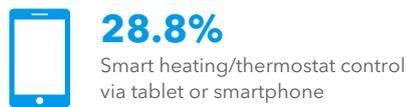
The measure most frequently taken by homeowners to update their heating systems is the installation of new appliances (61.2 per cent). Renewing activity is considerably higher in one- and two-family homes than in multi-family homes, but is not sufficient to achieve the necessary increase in energy-efficiency.



**Offers relating to heating systems**

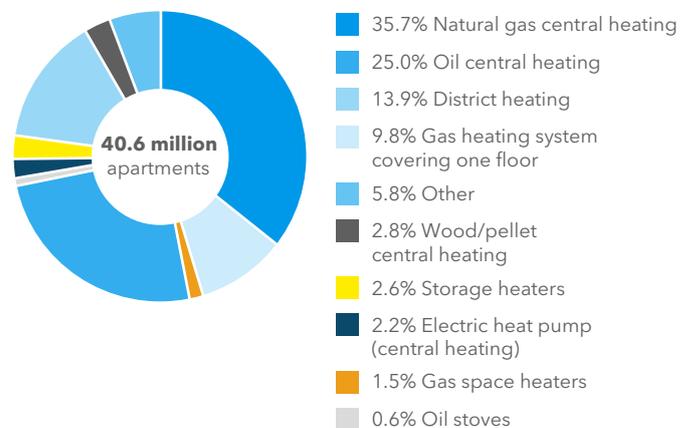
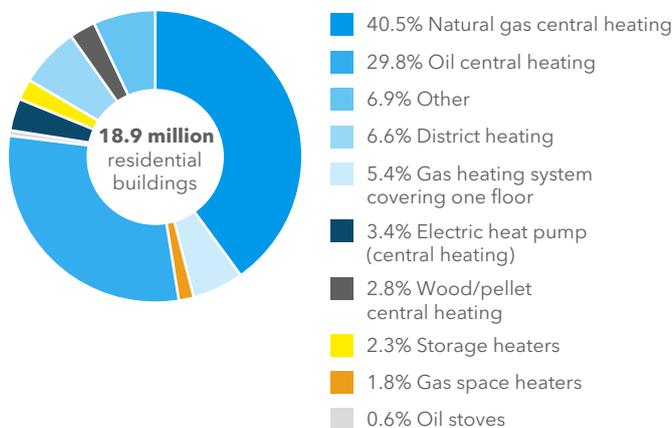
The interviewees are generally open to additional energy services. These include, in particular, smart thermostats/ smart heating control from tablet or smartphone (28.8 per cent), air-conditioning systems (18.9 per cent) and contracting as a form of energy-efficiency funding (13.3 per cent).

**Additional energy services**



**Natural gas is No 1 on the heating market and market leader among energy sources**

Gas central heating holds a lead in both residential buildings (40.5 per cent) and apartments (35.7 per cent). In total, natural gas is used for heating (central heating, heating systems covering one floor, gas heat pumps, gas boilers) in 9.3 million residential buildings (49.3 per cent) and in 19.5 million apartments (48.2 per cent).



**Most customers switch to natural gas**

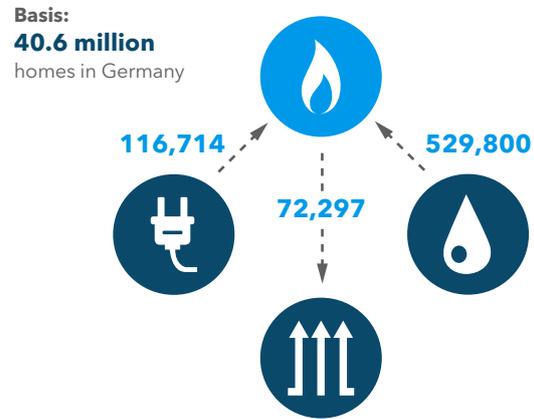
In German homes customers rarely decide to switch energy source when renewing their heating system. Only 14 per cent of those questioned say that they have switched energy sources since they moved in. On average, residents switched energy source 16.2 years ago. In doing so, most of them opted for natural gas. Of Germany's 40.6 million homes, almost 575,000 more than in 2019 are currently heated with natural gas.

**16.2 years**  
is the average for switching to natural gas in Germany

**More efficient heating with natural gas**

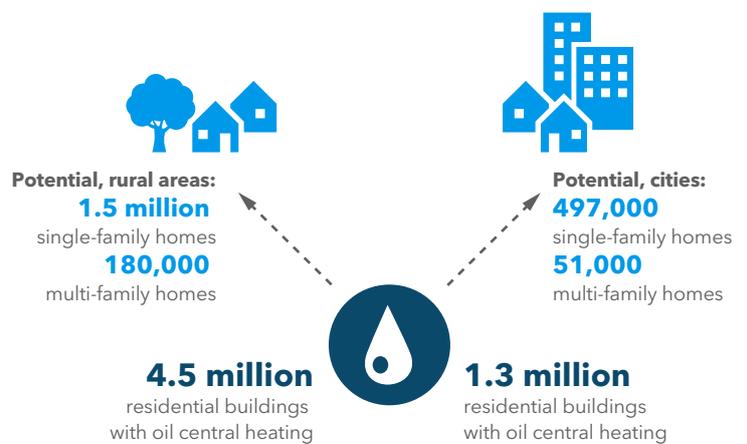
To heat their homes in a more environmentally friendly and more energy-efficient way, Germans could replace a large number of oil-fired heating systems with heating systems using natural gas. This switching potential is still underutilised. A share of 2.0 million single-family homes and 231,000 multi-family homes in 5.8 million residential buildings have the potential to be connected to a natural gas network and thus the choice to switch from oil to natural gas in heating systems.

**Energy source switches since 2009<sup>2</sup>**



<sup>2</sup> For clarity, only the most relevant switching activities are shown in this graphic.

**Potentials of energy source switching for residential buildings that are currently heated with oil**



**Conclusion**

- Customers are satisfied with natural gas as energy source
- With an average score of 2.1, natural gas is among the top-rated energy sources compared to heating oil, electric heat pumps and storage heaters
- What customers value most about natural gas:
  - easy and convenient handling (80 per cent),
  - high safety standards (56.7 per cent),
  - security of energy supply in the long term (54.1 per cent).

