

## RESIDENTIAL ENERGY CONSUMPTION

### HOUSE Focus 1

A recent survey conducted in Wallonia provides new insight into energy consumption related to housing, in particular by differentiating between sub-regions. The energy sources used by the residential sector are in effect varied. A better understanding of their distribution makes it easier to understand the resulting emissions.

This fact sheet is based on a survey carried out in 2015 by AQUAWAL and the CEHD<sup>1</sup> among more than 2,000 Walloon households which were representative of the diversity of households in Wallonia. The results concern the energy used for residential occupancy and do not contain information on other household energy needs (transport, etc.).

#### Average consumption of 22,152 kWh

In 2014, the average energy consumption of a Walloon household in their house was 22,152 kWh. The level of consumption varied from one district to another with a minimum of 18,497 kWh in the Liège district and a maximum of 29,591 kWh in the Dinant and Philippeville districts. The share of consumption used by Walloon households for heating and water heating was estimated at 19,339 kWh, or 87% of the total energy consumed.

#### Variable shares of energy sources used

In Wallonia, the most commonly used sources in 2014 were fuel oil (34.1%) and natural gas (30.1%), followed by electricity (17.6%) and wood (13.8%). However, there were sub-regional disparities in the energies used by households to meet their needs. Urban districts mainly used gas, while rural districts preferred fuel oil and wood, and districts made

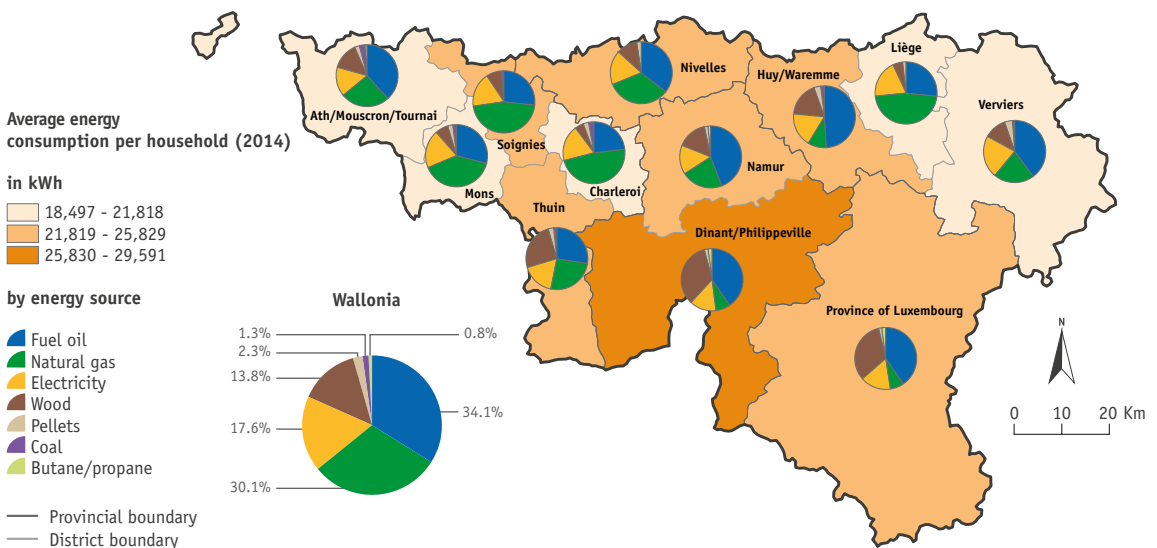
up of both rural and urban areas had a more varied energy mix. These disparities are largely due to access to energy resources, particularly gas and wood.

#### Determinants of the consumption level

Since residential energy is mainly used for heat production, the characteristics of the house determine the level of household consumption. As such, on average, a detached house consumes 2.5 times more energy than an apartment, while households living in a small dwelling (< 65 m<sup>2</sup>) consume three times less energy on average than those living in a large dwelling (> 175 m<sup>2</sup>). Certain characteristics of the household (size, age, socioeconomic level, etc.) also have an impact on energy consumption, but to a lesser extent. It should be noted that many characteristics are frequently linked, such as housing and household size.

<sup>[1]</sup> AQUAWAL & CEHD, 2015

Map 21 Residential energy consumption



SOERW 2017 – Source: SPW - DG03 - DEMNA