PRIMARY ENERGY CONSUMPTION

ENER 1

The environmental impacts of energy production and use depend on the quantities of energy consumed, but also on the type of resources used (primary or secondary, fossil or renewable). Knowledge of the energies used directly, or after conversion into secondary energies, makes it possible to better understand the resulting environmental pressures (e.g. air pollution).

Primary energy consumption in decline

In 2014, nearly 70% of the primary energy[1] consumed was used by the various sectors directly or after conversion, with the balance being dissipated mainly in the form of heat during electricity production or exported once transformed into secondary energy. Total primary energy consumption, which had been relatively stable since 1990, decreased by more than 20% between 2008 and 2014. This evolution is explained by the impact of the 2009 economic crisis on energy-intensive sectors, including the steel industry, but also by an increase in energy prices and improved energy efficiency on the part of certain industrial sectors and households[2].

Less coal and more renewable energy

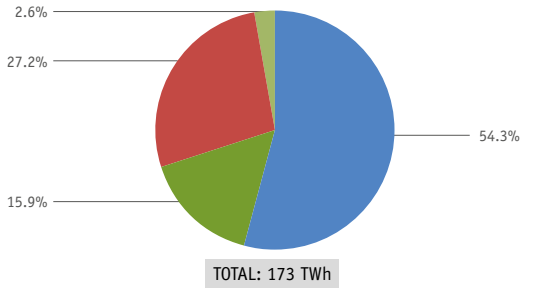
In 2014, oil products and nuclear fuel were the two most widely used energies in Wallonia. Together, they accounted for more than 60% of primary energy consumption. Nuclear energy is used for electricity generation[3], while oil products are used mainly for road transport and domestic heating. Solid fuels (excluding wood), which accounted for 25% of primary energy consumption in 1990, accounted for only 3% of primary energy consumption in 2014 following successive restructuring in the steel industry, developments in the energy sector and closures of coal-fired power stations. Renewable energy consumption and energy recovery[4] have increased fivefold since 1990. However, these two energies only accounted for just over 11% of total primary energy consumption in 2014.

Policies based on energy efficiency and cleaner energy

The Walloon Government intends to strengthen the developments observed in recent years by following the process of energy transition defined at the European level[5] and the Belgian objective of reducing gross domestic energy consumption by 18% by 2020[6]. As such, the Marshall Plan 4.0 (*Plan Marshall 4.0*) and the Air Climate Energy Plan 2016-2022 (*Plan air climat énergie 2016-2022*)[7] aim, firstly, to reduce consumption through better management of energy consumption and, secondly, to encourage cleaner energies in general and renewable energies in particular, whether in the energy conversion sector or for energies directly used by the various sectors.

[1] Sources of energy available naturally before transformation, including oil products (fuels and heating oil) | [2] → ENER 2 | [3] → ENER 5 | [4] From the non-renewable part of waste | [5] Climate and Energy Package for 2020, Climate and energy framework for 2030, "Energy Union" Package | [6] Objective assumed jointly by the three Regions under Directive 2012/27/EU | [7] → AIR Focus 3

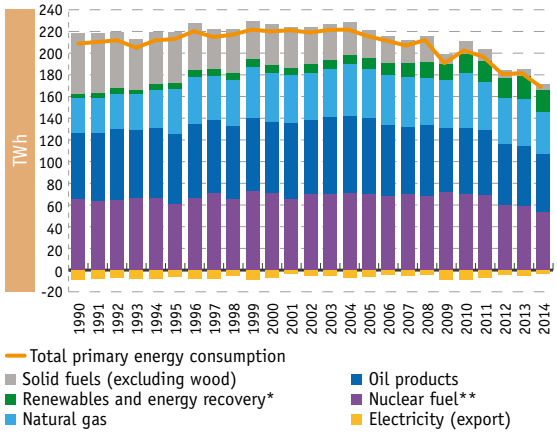
Fig. ENER 1-1 Primary energy consumption per use in Wallonia (2014)



** Including oil products (fuels and heating oil)*

SOERW 2017 – Source: SPW - DGO4 - DEBD (energy balance 2014)

Fig. ENER 1-2 Composition of primary energy consumption in Wallonia



** From the non-renewable part of waste*
*** Based on potential heat production*

SOERW 2017 – Source: SPW - DGO4 - DEBD (energy balances)