

ECO-EFFICIENCY OF THE TERTIARY SECTOR

In Wallonia, energy consumption of the tertiary sector (excluding transport) is lower than in industry⁴ or households⁵. However, the economic growth of the tertiary sector goes hand in hand with an increase in energy consumption, particularly electricity, and consequently related pressures on the environment³.

Increased energy consumption

In 2014, the tertiary sector (excluding the transport sector⁴) consumed 12.2 TWh of energy⁵, or 10% of final consumption in Wallonia. However, this sector had the highest growth in energy consumption between 1990 and 2014 (+42%). Fuel consumption (used for heating) varies greatly from year to year depending on climatic conditions. It accounted for 53% of the sector's energy consumption in 2014, which was a particularly mild year. Electricity accounted for the rest (47%). Between 1990 and 2014, electricity consumption showed an average annual growth rate of 2.5%. The annual electricity demand per job therefore increased from 4.7 MWh in 1990 to 6.4 MWh in 2014. This increase is mainly due to the proliferation of electrical equipment (office automation, lighting, air conditioning, etc.).

Eco-efficiency gains for emissions of acidifying substances

In terms of air pollutant emissions, the tertiary sector primarily emits greenhouse gases (GHGs) and acidifying substances (AS). Changes in GHG emissions⁶ are similar to those for energy consumption (fuels). Emissions of AS decreased significantly from 2005 onwards. This trend may be explained in particular by the increasing use of natural gas for domestic uses as an alternative to other, more

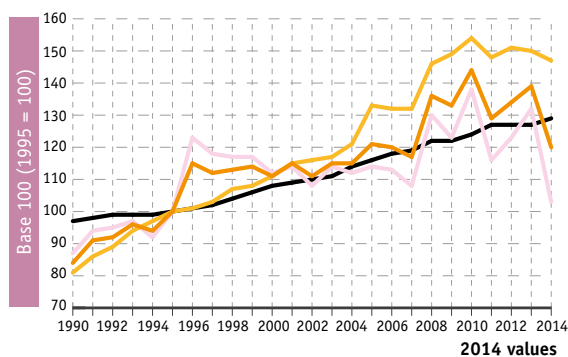
polluting energy sources (such as fuel oil), by improved boiler performance or, to a lesser extent, the installation of systems powered by renewable energy.

Towards an improvement of the energy efficiency of buildings

The Air Climate Energy Plan 2016-2022 (*Plan air climat énergie 2016-2022*)⁷ contains several measures intended for the tertiary sector. As in the residential sector, they are mainly focused on the energy performance of buildings⁸ ("energy performance contracts" for public buildings, simplified branch agreements, energy audits, etc.) and the reduction of energy consumption (improvement of heating systems, etc.). The gradual tightening of standards as regards the energy performance of buildings (EPBs) should also lead to more consideration for energy in the design of new buildings.

[1] → INDUS 1 | [2] → HOUSE 5 | [3] → ENER 5 | [4] According to the energy balance of Wallonia (ICEDD, 2016c), 45% of energy consumption in transport (→ TRANS 6) was attributable to the tertiary sector in 2014, or 16.5 TWh. | [5] Including electricity | [6] Excluding CO₂ from biomass (calculated at 30 kt CO₂ eq in 2014) | [7] → AIR Focus 3 | [8] In conjunction with the Employment-Environment Alliance 2016-2019

Fig. TERT 1-1 Energy consumption by the tertiary sector* in Wallonia

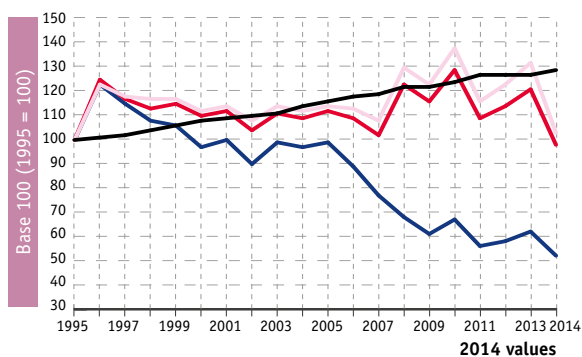


— Energy consumption (electricity) (TWh) 5.8
 — Energy consumption (total) (TWh) 12.2
 — Energy consumption (fuels) (TWh) 6.4
 — Number of jobs** 903,153

* Excluding transport sector
 ** Excluding transport and communications sector

SOERW 2017 – Source: SPW - DGO4 - DEBD (energy balances);
 FPB, BISA, IWEPS, SVR (HERMREG model)

Fig. TERT 1-2 Atmospheric emissions linked to the tertiary sector* in Wallonia



— Number of jobs** 903,153
 — Energy consumption (fuels) (TWh) 6.4
 — GHG Emissions*** (kt CO₂ eq) 1,486
 — Emissions of acidifying substances (t Aeq) 33.3
 — Energy consumption (electricity) (TWh) 5.8

* Excluding transport sector ** Excluding transport and communications sector
 *** Excluding CO₂ from biomass
 SOERW 2017 – Sources: SPW - DGO4 - DEBD (energy balances); SPW - AwAC (report carried out in February and June 2016, provisional 2014 data)