



Energy Efficiency Profile : Belgium

October 2008

Energy Efficiency Trends

Overview

Over the period 2000-2006 the energy efficiency bottom-up index for the total final energy consumption (ODEX) decreased by 7 %. Mainly the industrial sector contributed to this development, whereas the energy efficiency index of the transport sector only scarcely improved (6%) and the index of households is almost stable (-2%).

It should be noted that this index remains quite approximate, because of limitations in available statistical data, in particular a lack of disaggregation in the national energy consumptions.

Industry

In 2006, the efficiency index for the industrial sector (measured at the level of 9 branches - in terms of energy used per production index or per tonne - and aggregated to the whole sector) had improved by 12% compared to the base year 2000 (19% in relation to 1990). In general all sectors show significant energy savings. Consumption data (which have been compiled from regional statistics) are missing for 1991-1993. Noteworthy is the substantial increase in the ODEX of the chemical industry between 1990 and 1994, which reveals a major structural effect in this sector

(investment in naphtha cracking), without which the efficiency improvement would have been higher.

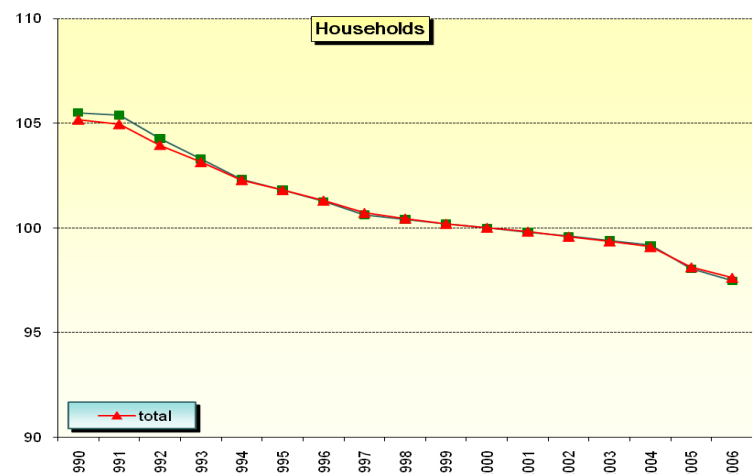
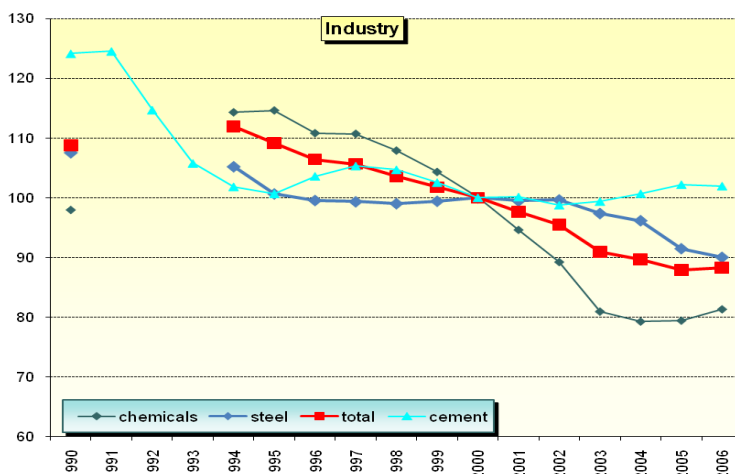
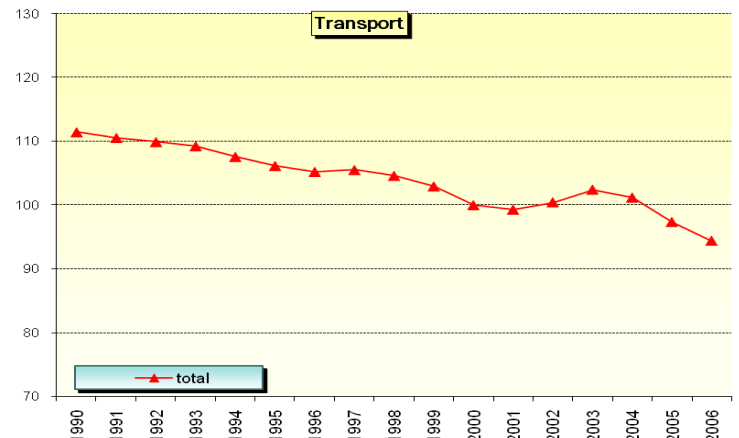
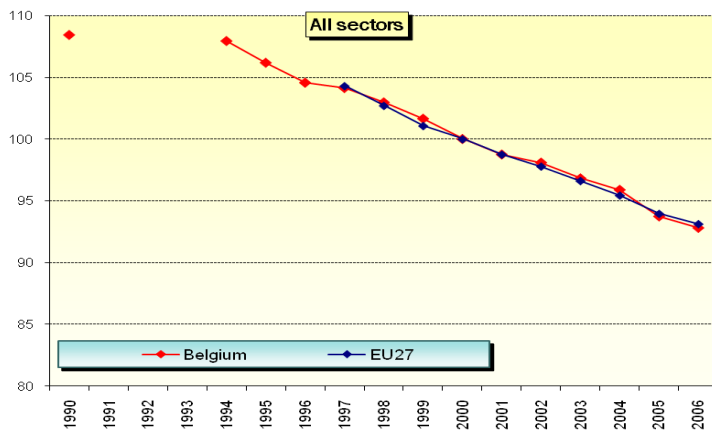
Households

For the households sector, the energy efficiency index takes into account space heating, water heating and cooking. It's measured by the average fuel consumption per use and dwelling. For space heating, it includes climatic correction and correction for the penetration of central heating. Between 2000 and 2006, the index has declined by only 2%. Since 1990, the decrease is 7%.

Transport

For the transport sector, the index takes into account road, rail and air transport. For road transport, given the lack of data on the vehicle fleet's average specific consumptions, this index represents the evolution of the energy consumption per vehicle, and is thus influenced as well by the average vehicle mileage as by the efficiency of the vehicles. Between 1990 and 2000, the index has declined by 11%. Since 2000 and despite a light increase in 2002/2003, it decreased by 6% more (mostly because of the index of road transport improved).

Energy efficiency index , base 100 = 2000



Energy Efficiency Policy Measures

Institutions and programmes

Belgium is a federal country and energy efficiency as well as the development of renewable energy sources are essentially a responsibility of the 3 regions (Flanders, Wallonia, Brussels). The *National Climate Plan 2002-2012*, which has been signed in 2002 by both the federal and the regional ministers responsible for environment, energy and transport, foresees a number of measures to be taken at either the federal or the regional levels. A new National Climate Plan is currently under preparation. Each region has also developed its own, multi-annual, climate plan.

The Flemish Region has issued its second climate plan (Vlaams Klimaatsbeleidsplan 2006-2012) in 2006; in Wallonia climate plan (Plan Air-Climat) was modified and adopted in March 2007.

Industry

For industry, the energy efficiency policy is focussed on voluntary agreements between industry and the (regional) government. In Flanders, these agreements are "benchmark" agreements, with a commitment to bring the energy efficiency to the world top ten by 2012. They are signed by individual companies with an energy consumption larger than 0.5 PJ per year. By December 2006, 185 companies had signed such an agreement. In Wallonia, voluntary agreements have been signed by 13 sector associations representing more than 120 companies, which commit themselves to a quantified energy efficiency improvement for the sector over the period 2000-2012. Besides, cogeneration is actively promoted in all three Regions, through a range of instruments (subsidies, fiscal deductions, green certificates, information campaigns...).

Households, Services

All three regions enforce thermal insulation standards for new and renovated buildings in the household and the tertiary sectors. They have transposed European directive 2002/91 on the energy performance of buildings, imposing energy performance standards for all types of buildings, taking into account all

energy efficiency aspects (building shell, heating, ventilation...) for new and existing buildings. In the Flemish Region, the EPB entered in force in January 2006; in Brussels, since July 2008 and it's foreseen in Wallonia from September 2009.

All three Regions award subsidies for a range of energy saving or renewable energy investments, as well as for energy audits or energy accounting schemes.

At the federal level, the purchase of energy saving equipment is being encouraged by fiscal deductions for energy saving investments, as well as by labelling of large domestic appliances. In Flanders, quantified energy savings (between 1% and 2.2% per year in 2003-2008) for their customers are being imposed to electricity grid operators as a public service obligation. The latter award premiums to their clients for the purchase of energy saving appliances, which are financed through an increase in electricity prices.

Transport

Emphasis is put on the promotion of public transport, by extending its supply and improving its availability, its quality and its price attractiveness. Free access to public transport is also provided, either to certain categories of citizens (people above 65 years of age and civil servants for their home-to-work trips, in the case of railways). A particular effort has also been put on promoting the development of mobility planning tools such as company transport plans, urban mobility plans, school transport plans.

Energy prices and taxes

In the voluntary agreements, the public authorities have promised, if it is in their power, that no CO2 tax would be applied to the participating companies. However such a tax is not under discussion. For stationary applications, there are some federal energy taxes on fuels and electricity, which have been adapted in 2003 (increase for liquid petroleum products, decrease for natural gas for households). A progressive shift from the diesel car purchase tax towards the diesel excise tax has also been implemented. The changes remain in the order of a few percent of the fuel prices.

Selected Energy Efficiency Measures

Sectors	Title of Measure	Since
Industry	Voluntary agreements on energy efficiency or CO2	2000
Industry	Promotion of cogeneration	
Households	Insulation standards for new dwellings	1985
Households	Insulation standards for renovated dwellings	2000
Households	Energy label for appliances	
Households and tertiary	Labels for high efficiency boilers (OPTIMAZ, HR, HR+)	1985
Households and tertiary	Public service obligation of electricity grid managers in Flanders	2003
Households and tertiary	Energy performance standards of buildings (in the 3 regions)	2006, 2008, 2009
Tertiary	Insulation standards for new and renovated buildings	2000
Transport	Promotion of public transport	

Source: MURE data base

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