Energy Efficiency Profile: Hungary

Energy Efficiency Trends

October 2012

Overview

Between 1998 and 2010 the global energy efficiency of final consumers, as measured from the decrease of the global index (ODEX) improved by 17%, against 14% for the EU as a whole. Most of the efficiency improvements were registered in the industrial and transport sectors, since the energy efficiency of households improved a bit.

Industry

The ODEX decreased by around 40% in the industrial sector between 1998 and 2010. All the ten branches participated to this improvement. The largest improvement was in machinery & metal products (9,4%/year) due to the new investments and installations of more up-to-date production equipment. This trend does not include the effect of the shift of manufacturing industry towards less energy intensive branches, especially the manufacturing of machines and vehicles, whose share increased from 33% to 64% in the value added of the manufacturing.

Households

The efficiency of households improved by 4% between 1998 and 2010. There was a massive fuel switching that took place between 1990 and 1998, when the majority of the households replaced tile stoves, coal and oil fuelled boilers with high efficient gas fuelled boilers. As a result the share of natural gas in household's final consumption increased from 25% in 1990 to 54% in 1998 and 56% in 2010. The unit consumption per m2 for space heating deteriorated from 11,9 koe/m2 to 12,8 koe/m2 between 1998 and 2010 (+0,6%/year) This deterioration comes from the fact that that the rate of renovation of dwelling is low. The thermal regulation of new buildings was strengthened in 2007. It is also contributed to the improvement of household's ODEX.
Subsidised household gas prices played an important role in the massive fuel switching.

Transport

Energy efficiency of transport increased by 11% between 1998 and 2010 and by 15% since 2000. The efficiency of cars has increased only moderately The unit consumption of good transport was unchanged between 1998 and 2010. In transport, two phenomena are characterizing trends in the transport sector. On one hand, the majority of the shipment of goods has shifted from rail to road transport, because multinational companies, which are dominating the Hungarian economy, prefer road to rail transport, since it is more flexible and less volume sensitive. On the other hand the stock of cars and the average distance travelled by cars increased relatively rapidly.

Energy efficiency index (base 100=2000)*
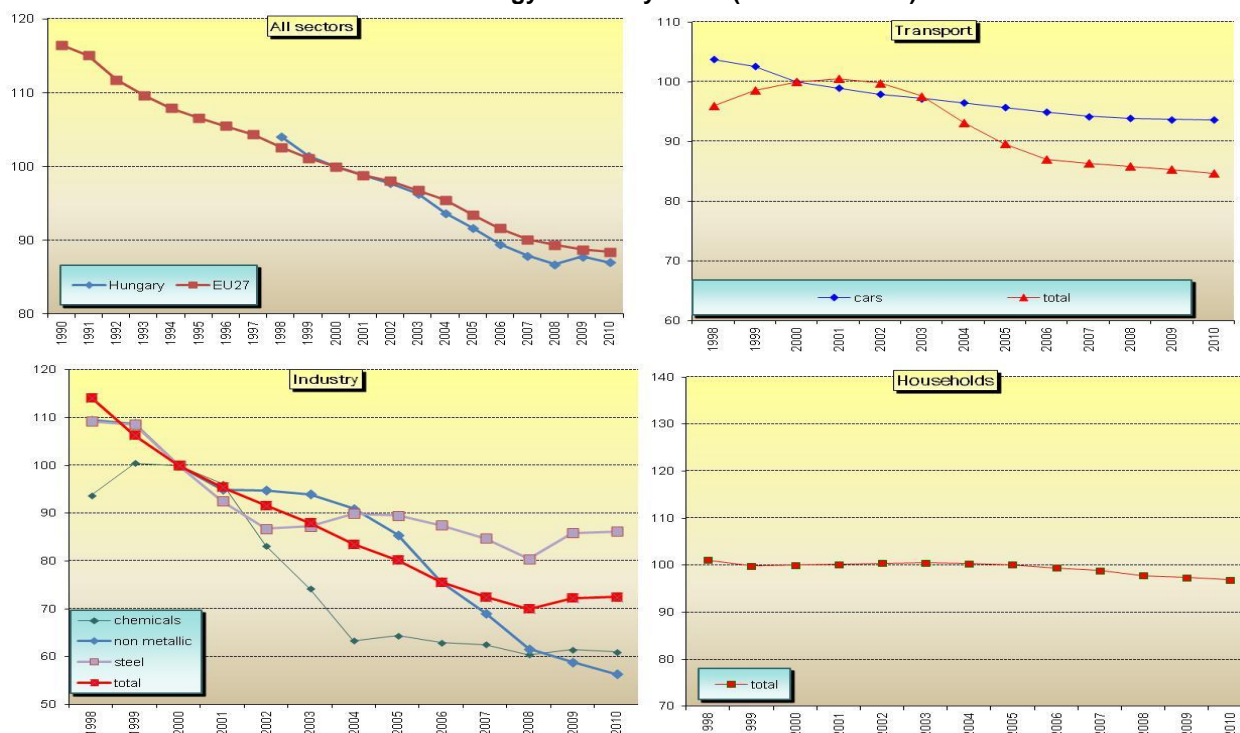
*All indicators measured as a three-year moving average
Source ODYSSEE   For more information: http://www.odyssee-indicators.org/

Energy Efficiency Policy measures

Institutions and programmes

The energy policy is described in a document named "The Business Model of Energy Sector". The Energy Efficiency Action Plan attached to the document includes specific provisions for the annual reduction of the energy intensity by 3.5 %/year, for decreasing primary energy demand by 1.79 Mtoe per year and for the annual reduction of CO_2 emissions by 5 Mt.

In 2011 and 2012 an institutional change took place: Hungary's energy efficiency agency, the "Energy Center" Energy Efficiency, Environment and Energy Information Agency Non-Profit Limited Company, has been replaced on 17 May 2012 by a new entity, National Environmental Protection and Energy Center Non-Profit Ltd: its main focus is the management of European Union Funds. The implementation of the Energy Service Directive is carried out by ÉMI Nonprofit Ltd. from March 2012.

Industry

The improvement of industrial energy efficiency is facilitated by several programmes: installation of industrial CHP's , that on average are 20-25 % more efficient ; industrial fuel switching , with a shift to natural gas and a wider use of electricity as a result of the increasing demand of precise metering and the controllability of processes. The Environment and Energy Operative Programme provides funds to the business sector and tertiary sector using direct subsidies.

Households, Services

Among the operating building renovation programmes, the most important one is the programme named "Energy efficient renovation of residential buildings built with industrialised technology". The dwellings made of pre-fabricated blocks with weak heat insulation characteristics constitute 19% of the total number of dwellings in Hungary. The programme sets out the thermal renovation and building engineering modernisation of pre fabricated flats. A maximum 30% of the investment cost , with a maximum € 2050 is financed by the state Fund.

For renovation of traditional household's buildings, the operating programme is named "Residential energy saving programme For Successful Hungary".

The introduction of "Accounting based on metering" was a major step in district heating. According to the Act on District Heating of 2005/18 the district heating companies must cease flat-rate based tariffs and payment without metering, and they must establish the conditions of metering by heat centres.

Transport

In order to achieve a high renewal rate and the modernisation of the car fleet; the purchase of new cars was facilitated by preferential financial incentives.

For freight transport, combined road-rail transportation is promoted for decreasing shipment of goods by road.

Selected Energy Efficiency Measures

Sector	Measure	since
Industry	Promotion of CHP (basic decree 56/2002 and amendment 206/2009)	1997-
Industry/ tertiary	Energy Efficiency Loan Fund	1991-2012
Industry/ tertiary	Environment and Energy Operative Programme	2007-2013
Households	Support of the Energy Efficient Renovation of Residential Buildings Built with Industrialised Technology	2001- ...
Households	Residential energy saving programme "For Successful Hungary"	2001- ....
Households	Low for District Heating Services 2005/18	2005
Transport	Combined road-rail transportation	1990- ...

Source MURE

For more information: http://www.isisrome.com/mure/

* after implementing the measures proposed in the audits