



Energy Efficiency Profile : Estonia

October 2008

Energy Efficiency Trends

Overview

In the period 1996–2006 the energy efficiency improvement has been quite substantial as the general energy efficiency index (ODEX), which covers all sectors, decreased by 18% (–1.9% a year). Since 2000 the total aggregated efficiency has been almost stable.

Industry

Over the period 1996–2006 there has been a reduction of the ODEX by 28% (–3.2% per year); during 2000–2004 the efficiency increase was slower (–0.6%/year), in 2005 and 2006 the ODEX increased to some extent. Estonia is a small country and therefore in many branches of industry there are only few enterprises. Therefore, data for several branches are not available for public use and more detailed analyses cannot be carried out. Partially, the efficiency improvements can be attributed to some structural changes in industry, in particular till 2000. Particularly fast improvement has taken place in chemical industry, mainly due to the reorganisation of oil shale processing. Non-metallic and food industry were the other branches significantly contributing to the efficiency increase.

Households

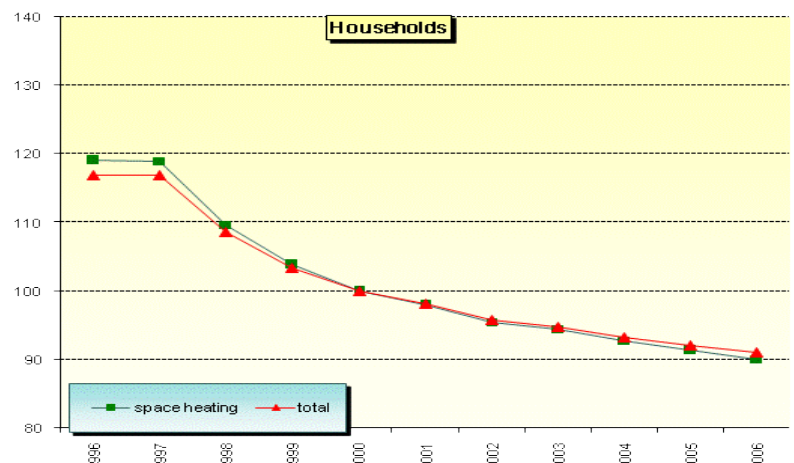
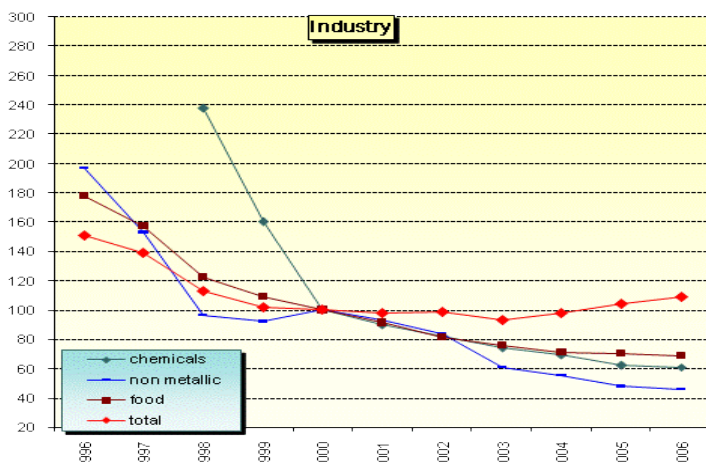
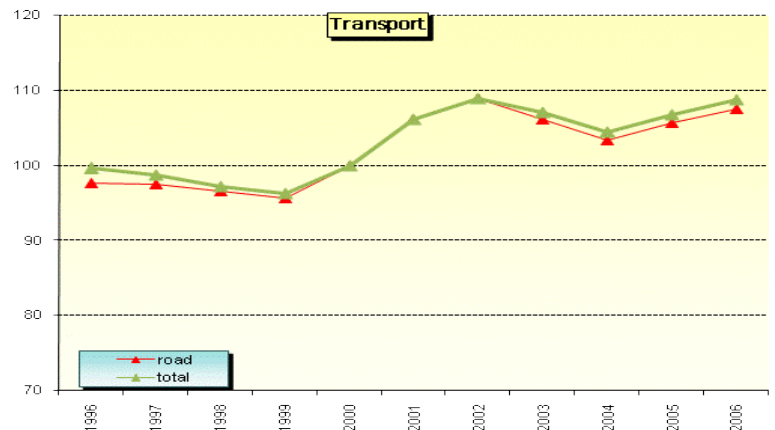
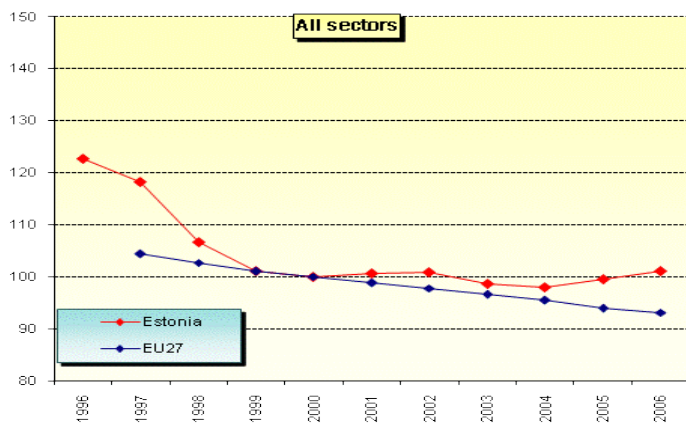
Between 1996 and 2006, the ODEX for household sector as a whole decreased by 22%. Due to poor statistics on energy consumption in households, the efficiency analysis has to be based mainly on some case studies and expert estimations. The efficiency improvement (2.5%/year) is to a great extent a result of renovation of building envelopes – additional insulation, replacing windows, etc. An important factor has been the introduction of heat metering (incl. hot water meters in apartments) which gave incentive to take efficiency measures.

The specific heat consumption in new dwelling houses is lower due to more strict thermal standards in building codes. At the same time, there is an opposite tendency – new dwellings are larger and higher living standards need more energy.

Transport

Between 1996 and 2006, the aggregated energy efficiency in transport has a general trend to increase. The rail transportation has constantly growing its efficiency (9.1%/year), but in road transport there is a reverse trend. Due to poor data, it is difficult to evaluate the reasons for increasing energy efficiency in road transport.

Energy efficiency index (base 100=2000)



Energy Efficiency Policy Measures

Institutions and programmes

There is neither energy agency nor any institution with similar functions in Estonia. The governmental unit responsible for energy issues is the Energy Department in the Ministry of Economic Affairs and Communication.

The major strategy document for the energy sector is the **Long-term National Development Plan for the Fuel and Energy Sector until 2015** approved by the Parliament in December 2004. Regarding energy efficiency, the Plan includes a strategic objective to maintain the volume of primary energy consumption at the level of the year 2003 until 2010. At present, the new national plan is under preparation. The third **National Energy Efficiency Programme** was approved by the Government in November 2007.

Industry

There are no special programmes targeted to energy efficiency in industry at national level. Nevertheless, efficiency improvement plays an important role in environment related measures. The **National Programme for Abatement of Greenhouse Gases for 2003-2012**, as well as obligations in frames of the **European Emission Trade** system have contributed to efficiency improvements in industry.

Households, Services

The new **National Housing Development Plan for the years 2008-2013** was approved by the Government in January 2008. The development plan is carried out by the Ministry of Economic Affairs and Communications, together with the Estonian Credit and Export Guarantee Fund (KredEx) in co-operation with local authorities and non-governmental organisations in the housing sector.

In 2003 the State started to support the refurbishment of apartment buildings built before 1990. The assistance covers 10% of the renovation costs. To apply for reconstruction

assistance, the apartment building in question must have been through technical inspection, which in turn includes an energy audit. To conduct such an inspection and audit, the apartment association may apply for a subsidy in the amount of 50% of the inspection or audit cost.

A new Regulation of the Government (December 2008) stipulates stricter minimum requirements for energy performance of buildings. Tallinn University of Technology has started training courses for energy auditors. The energy efficiency certificates for buildings will be issued since January 2009.

Transport

There are no transport related national programmes targeted directly to increasing energy efficiency. Nevertheless, there is an indirect impact as a result of measures planned in the **Transport Development Programme for years 2007 - 2013** (adopted by the Parliament in January 2007). The Plan has set the target to stabilize the absolute amounts of GHG emissions from transport. Increasing the share of public transport has been foreseen as a main measure for reaching this target.

Energy prices and taxes

As a member state, Estonia has to meet the EU requirements for taxation of fuels and energy (Directive 2003/96/EC). Since 1 January 2008 the excise duty on natural gas and electricity was introduced and all other rates increased up to EU minimum level. As a result, most rates of excise duties on fuels are harmonized with the EU stipulations, only oil shale and shale oil are exempted from excise duty.

In Estonia, the pollution charges are imposed on the combustion of fuels. There are 8 groups of pollutants taxed, including (since 2000) carbon dioxide. The gradually increasing rates are fixed up to the year 2009.

Selected Energy Efficiency Measures

Sectors	Title of measures	Since	CO ₂ saved
General	National Energy Efficiency Programme	2007	
General	Action Plan for the National Energy Efficiency Programme	2007	
General	Energy development plans for municipalities	1995	
General	Training courses for energy auditors	2008	
General	Regional planning (zoning) of heat supply in municipalities	2003	
General	National Programme for Greenhouse Gas Abatement (2003-2012)	2004	-20%
Households	Grants for energy audits in residential buildings	2003	
Households	Subsidies for investments in energy efficient renovation	2003	
Households	National Housing Development Plan for 2008-2013	2008	
Households & tertiary	Minimum energy performance requirements for buildings	2007	
Transport	National Transport Development Plan for 2007-2013	2007	
Industry	Pollution charges on emission (incl. CO ₂) from combustion	2000	

Source: MURE data base

www.mure2.com