



Energy Efficiency Profile: Estonia

October 2012

Energy Efficiency Trends

Overview

Over the period 1996–2010 the energy efficiency improvement has been substantial as the general energy efficiency index for all sectors (ODEX) decreased by 36% (–3.1%/ year). Since 2000 the overall energy efficiency improvement has been more modest, after 2005 the total efficiency has slightly decreased.

Industry

Industry has made the major contribution to the overall energy efficiency increase: over the period 1996–2010 there has been a reduction of the energy efficiency index of industry by 67% (–7.5% per year). During 2000–2010 the efficiency increase was slower but still high: 4.3% a year. Part of the efficiency improvements may be attributed to structural changes within some industrial branches, in particular until 2000. Unfortunately, as Estonia is a small country, in many branches there are only few enterprises and data for some branches are not available for public use, which prevent more detailed analyses. Particularly fast improvement has taken place in chemical industry, mainly due to the reorganisation of oil shale processing. Machinery manufacturing and food industry also contributed to the efficiency increase, in pulp and paper industry the latest trend is towards higher energy intensity.

Households

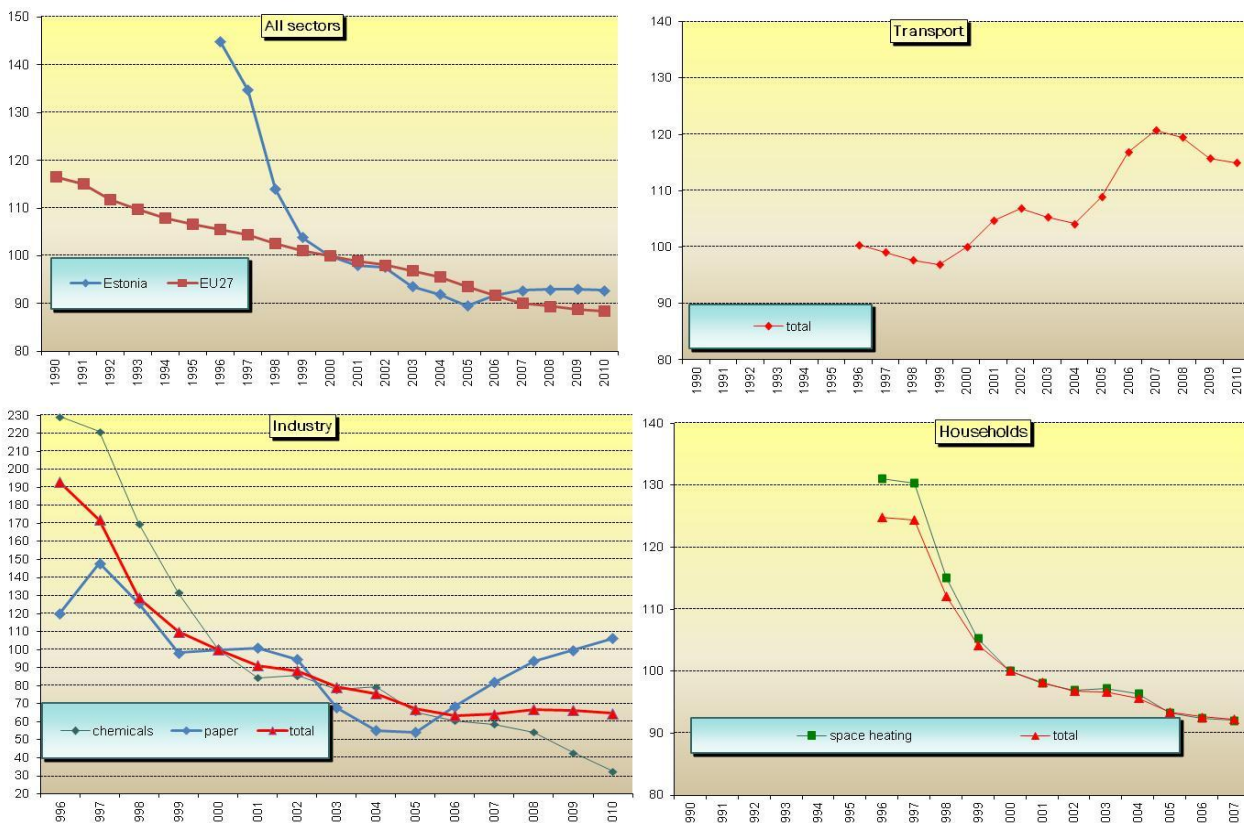
Between 1996 and 2010, the technical ODEX in the household sector as a whole decreased by 27%. Due to poor statistics on energy consumption by end use, the efficiency analysis has to be based mainly on case studies and expert estimations. The efficiency improvement (2.2%/year) is to a great extent a result of the renovation of building envelopes – additional insulation of outer walls and roofs, replacing windows, etc. An important factor has also been the introduction of heat metering (incl. hot water meters in apartments) which gives 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 trend – new dwellings are larger and higher living standards need more energy.

Transport

Between 1996 and 2010, the aggregated energy efficiency in transport had a negative trend, mainly because of the rapid development in road transport. Due to poor data, it is difficult to evaluate the reasons for decreasing energy efficiency in road transport. Since 2008 the ODEX index indicates relative energy efficiency improvement.

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

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 (MoEAC). In implementing energy efficiency measures, the MoEAC is supported by the Fund KredEx.

The major strategy document for the energy sector is the National Development Plan for the Energy Sector until 2020 approved by the Parliament in June 2009. The Development Plan of the Estonian Electricity Sector until 2018 sets the strategic objectives for the power sector. The third National Energy Efficiency Programme 2007–2013 was approved by the Government in 2007. In September 2011, the MoEAC adopted a further implementation plan of the Programme that was presented to the European Commission as the Second Energy Efficiency Action Plan of Estonia (NEEAP2).

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 of the European Emission Trade System (EU-ETS) have contributed to efficiency improvements in industry.

Households, Services

The measures introduced by the National Housing Development Plan for the years 2008–2013 are carried out by the MoEAC, together with KredEx and in co-operation with local authorities.

In 2003 the State started to support the refurbishment of apartment buildings built before 1990. To apply for reconstruction assistance, the apartment building 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 Regulation of the Government from December 2008 stipulates stricter minimum requirements for energy performance of buildings. Tallinn University of Technology arranges training courses for energy auditors. The energy efficiency certificates for buildings are issued since January 2009.

Estonia has a surplus of Kyoto Protocol assigned amount units (AAU) amounting to 85 million units. Starting from the end of 2010 Estonia has successfully sold a great amount of AAUs. The revenues from the sales (up to now 365 M€) are used according to the relevant Green Investment Scheme (GIS). According to current plans, from GIS almost 500 buildings in the public sector will be refurbished (including improvement of thermal insulation).

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. The Plan has set the target to stabilize the absolute amount of GHG emissions from transport. Increasing the share of public transport has been foreseen as a main measure for reaching this target. A part of revenues from sales of surplus AAUs are also used for investments into road transport: energy efficient and environmentally friendly buses and electric cars. For electric cars the infrastructure (more than 200 charging stations) will be established all over the territory of Estonia.

Energy prices and taxes

Almost all rates of excise duties on fuels are harmonized with the EU stipulations, only oil shale is partially exempted from the excise duty. In some cases (light fuel oil and electricity) the rates exceeds the EU minimum levels. Air pollution charges are imposed on the combustion of fuels. There are 8 groups of pollutants taxed, including (since 2000) the carbon dioxide. The gradually increasing charge rates are fixed up to the year 2015.

Selected Energy Efficiency Measures

Sector	Title of measure	Since	CO ₂ saved
All	National Energy Efficiency Programme 2007–2013	2007	
All	Enhanced National Energy Efficiency Action Plan (NEEAP2)	2011	
All	Energy development plans for municipalities	1995	
All	Green Investment Scheme	2010	61 Mt
All	Regional planning (zoning) of heat supply in municipalities	2003	
All	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

For more information : <http://www.muredatabase.org>

