

## Energy Efficiency Trends

### Overview

Energy efficiency of final consumers in the period of 2000-2012 has improved by 30% (an average of 2.45%/year). Due to the economic crisis, the performance indicators for a short period (2008-2010) remained unchanged or even worsened, but since 2011, positive trends may be observed again. The most considerable input to this positive trend was provided by the household sector, which contribution to the final energy consumption is the highest, and the implemented energy efficiency measures provided the greatest improvement of energy efficiency index.

### Industry

Energy efficiency indicator for manufacturing industry in the period of 2000-2012 has improved by 21% (an average of 1.75%/year), including the negative impact of the economic crisis on the indicator in 2008-2010. The most rapid improvement in energy efficiency is stated in 2000-2004, when the manufacturing industry restructuring and rapid modernization took place. In the steel production sector, the rapid indicator improvement over the past 2 years has been associated with the technological change (switching from OHF to EAF). A significant impact the economic crisis had on the chemical industry energy efficiency indicators. In food sector, which plays an important role in the manufacturing industry (21% of the total value added in manufacturing), energy efficiency has improved by 46% (an average of 3.8%/year).

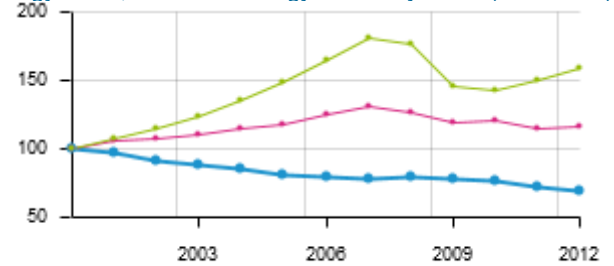
### Households

The energy efficiency index in the household sector has improved by 33.1% (an average of 2.8%/year) between 2000 and 2012. Improvements have been achieved mainly in space heating, the largest end-use household sector (about 72%), with an improvement of 33%. More limited improvements took place for other uses: water heating and cooking. A significant improvement for electrical appliances started after 2005, when households switched to a rapid transition to more energy efficient appliances in the key electricity consuming product groups (refrigerators, freezers, lighting). Electrical appliances represent 7.8 % of the household energy consumption.

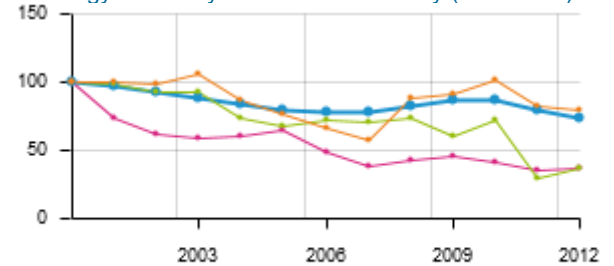
### Transport

Energy efficiency has improved by 32% (an average of 2.6%/year) since 2000, in the transport sector. Whereas road transport constitutes at least 90% of total energy consumption in the sector, changes in the efficiency of road transport provide the greatest impact. The main contributors in increasing of energy efficiency in road transport are energy efficiency improvements in freight road transport (reduced energy consumption per tkm). Despite the increase of the proportion of the new passenger cars, energy efficiency has increased insignificantly (7%) during this period. Transport logistics optimization has improved the energy efficiency of rail transport by 22%.

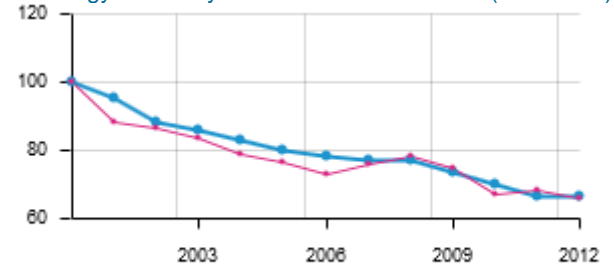
Energy cons., GDP and energy efficiency index (100=2000)



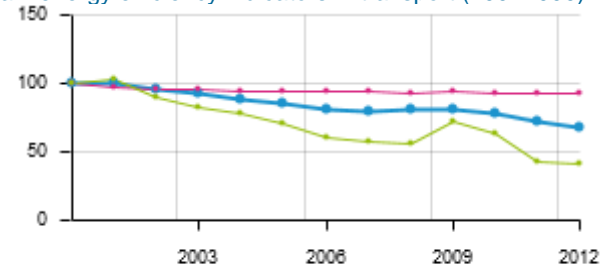
Main energy efficiency indicators in industry (100=2000)



Main energy efficiency indicators in households (100=2000)



Main energy efficiency indicators in transport (100=2000)



Legend for transport indicators:  
 ODEX (blue square)  
 Cars: litres per 100 km (pink square)  
 Road traffic of goods (trucks): koe per tonne-km (green square)

## Energy Efficiency Policy

### Institutional and energy efficiency targets:

The EU 2020 climate and energy package commits member states to become a highly energy-efficient low carbon economy. Improving energy efficiency (EE) is set as a Latvia national priority, which allows for the cost-effective reduction of risks associated with security of energy supply, sustainability and competitiveness of manufacturing and other sectors, at the same time creating new jobs and promoting growth.

Based on Art.3 of Directive 2012/27/EU, the indicative national EE target set for Latvia based on primary energy savings in 2020 is 0.67 Mtoe, which is equivalent to final energy savings of 0.457 Mtoe, providing for energy savings in multi-apartment residential buildings, central and municipal government buildings, industry, services and transport, as well as district heating systems. Meeting the above-noted EE target directly contributes to achieving the national renewable energy (RES) target to increase the share of RES in gross final energy consumption up to 40%, as well as greenhouse gas emission mitigation target.

The particular division of the Ministry of Economics, consisting of 4 departments (Energy Market and Infrastructure Dept., Renewable Energy and Energy Efficiency Dept., Construction and Housing Dept., Construction Information System Project Division), is in charge of energy sector.

Particular attention is paid to the EE investments support (co-financing) measures. Particularly frontrunners are financially supported. Ministry of Economics is a responsible authority for EU ERDF and CF co-financing.

The national Climate Change Financial Instrument (CCFI), supervised by the Ministry of Environmental Protection and Regional Development, is targeted to EE and RES measures in both public institutions and business entities, including improvements in building envelope, heating system and production technological equipment. In 2015-2020, CCFI will be followed by the GHG Emissions Quotas Auctioning Instrument.

Further development of energy performance standards in buildings is defined as one of priorities. In April 2014, the Amendments to the Latvia Construction Standard LBN002-01 "Thermotechnics of Building Envelopes" have introduced the requirements of the recast Directive on Energy Performance of Buildings. In 2013, new Governmental Regulations were adopted, defining EE classes of residential and non-residential buildings.

In transport sector, to promote more efficient cars and efficient driving, the government applies a mix of fiscal, legislative (both normative and informative), public procurement and transport infrastructure development measures. Fuel excise tax and differentiated tax rates for passenger cars depending on age and engine size, as well as new cars registration tax based on specific CO<sub>2</sub> emissions, make strong synergy effect. The legal norms related to public procurement in the field of road transport are transposed in accordance with the Directive 2009/33/EC. A significant attention in the actual financial planning period is paid to the development of efficient transport infrastructure, including public transport, supervised by the Ministry of Transport.

### Main energy efficiency policy measures and their impacts

Sector	Main objectives and measures	Impacts
Industry	Complex Solutions for GHG Emissions Reduction in Industrial Buildings and Technological Equipment <sup>(1)</sup>	9 ktoe
	Efficient Use of Energy Resources, Reduction of Energy Consumption and Transfer to RES in Manufacturing Industry <sup>(2)</sup>	10 ktoe
Buildings	Energy Performance: Thermal Insulation Standards 2014 Increasing Heat Energy Efficiency in Multi-Apartment Buildings <sup>(3, 4)</sup>	31 ktoe
Transport	Systematic Inspection of Technical Conditions of Motor Vehicles . Applying the differentiated tax rates for passenger cars Promotion of clean and energy-efficient road transport vehicles - Public procurement Development of public transport network	
Public services	Increasing Energy Efficiency in Public (Central Government and Municipal) Buildings <sup>(1,4)</sup>	25 ktoe
	Investments in Public Territories Lighting Infrastructure to Reduce GHG emissions <sup>(1)</sup>	1 ktoe
Tertiary	Complex Solutions for GHG Emissions Reduction (buildings and technological equipment) <sup>(1)</sup>	4 ktoe

### Sources of investments co-financing:

(1) co-financed by CCFI, 2010-2015

(3) co-financed by ERDF 2007-2013

(2) co-financed by EU Cohesion Fund (CF) 2014-2020

(4) co-financed by ERDF 2014-2020