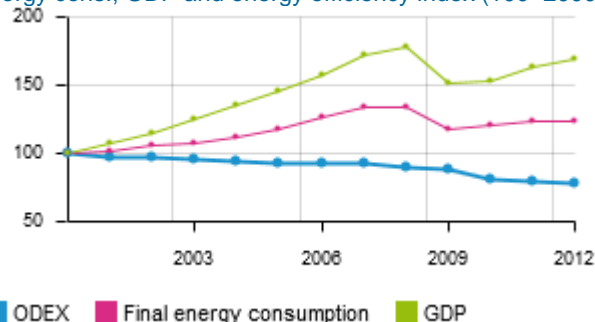


Energy Efficiency Trends

Overview

During the period 2000-2007 the average growth rate of GDP was 8.1% per annum. The global economic crisis has effect already in 2008, but GDP growth rate in 2008 was still positive. In 2009, GDP decreased by 14.8% and in 2011 - grew by 6%, 2012 by 3,7%. The final energy consumption was increasing during the period 2000-2008 by 4,0% per annum. The final energy consumption was increasing almost in all sectors of the national economy. The most significant growth was in transport sector. The most severe impact of the economic recession was in the construction sector where energy consumption decreased by 35%. Over the period 2000-2012 energy efficiency index (ODEX) decreased by 20%.

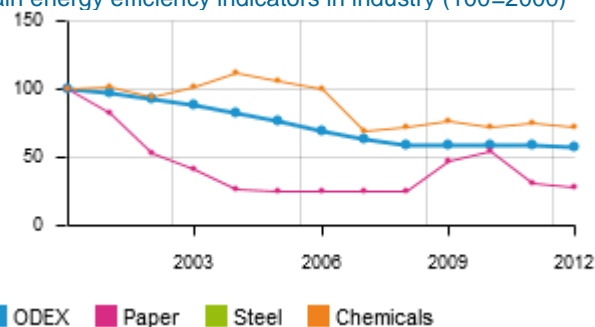
Energy cons., GDP and energy efficiency index (100=2000)



Industry

Currently final energy consumption in industry accounts about 20% of the total final energy consumption in Lithuania. The energy efficiency progress in the industry was 40% between 2000 and 2012. In the chemicals and chemical products sector, which is responsible for 30% of the final energy consumption in industry, energy efficiency improved by 20% since 2000. Introduction of advanced innovative technologies enabled decrease of the energy efficiency in the paper industry by 60%.

Main energy efficiency indicators in industry (100=2000)

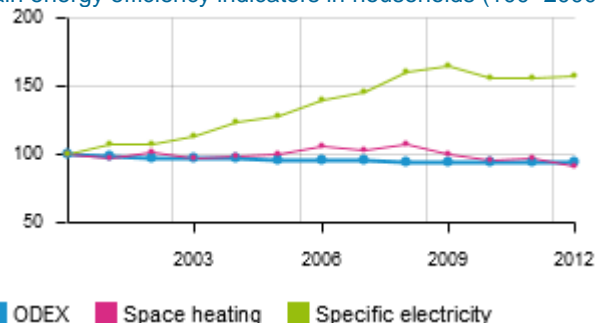


Chemicals : toe per unit of production index
Paper, steel: toe per tonne

Households

Currently final energy consumption in household accounts about 32% of the total final energy consumption in Lithuania. Household improved their energy efficiency by 6% since 2000. This improvement was stimulated by renovation of old multifamily and public buildings. The energy efficiency indicator for electricity (kWh per dwelling) show increase by 60% since 2000. The growing number of appliances (e.g. PCs, dishwashers, freezers, washing machines and other small appliances) utilized in households is the main reason of the increased electricity consumption.

Main energy efficiency indicators in households (100=2000)

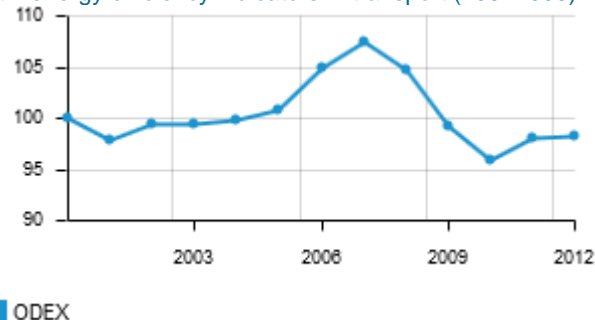


Space heating : koe per m2
Large electrical appliances: kWh per dwelling

Transport

Currently final energy consumption in transport accounts about 33% of the total final energy consumption in Lithuania. During 2000-2012 the energy efficiency gains in the transport sector in Lithuania were 0.5% per annum. However, since 2009 the energy efficiency gains have unfavourable trend. The reasons for this unfavourable trend are: the shift from the public transport modes to the passenger cars, the switch to the bigger cars with higher fuel consumption, the shift from the efficient freight transport modes (rail and water) to the road transportation and etc.

Main energy efficiency indicators in transport (100=2000)



Energy Efficiency Policy

Institutional and energy efficiency targets:

In the National Energy Independence Strategy (NEIS), approved by the Lithuanian Parliament in 2012, the government sets the objective to improve the efficiency of all types of energy in a way that figures of energy consumption in buildings, various installations and devices in households, technological processes in industry and transport systems moved towards those that are in economically developed EU countries. In the scope of energy efficiency, the NEIS sets a goal to increase energy consumption efficiency by 1.5% a year. Seeking to achieve this goal, cross-cutting and sectorial measures are being implemented.

The basic cross-cutting measures used to improve energy efficiency are the following: requirements of ecodesign for energy related products, labeling of energy consumption - related products, fiscal measures (including exemption from pollution tax) and support of renewable energy.

In industry investment subsidies for energy efficiency and renewable energy projects are provided through EU Structural Funds 2007-2013, Lithuanian Environment Investment Fund, Special Programme for Climate Change. The financing is mainly oriented towards improvement of energy production efficiency by providing support for more efficient cogeneration and heat supply systems and for more efficient production and energy use for SMEs. The measures implemented in industrial enterprises by

using their own financial resources are considered as relevant impact measure in the country too. EEE and Norwegian financial instruments (partnership project scheme and small grant scheme) are available too to develop and install new environmental technologies; to improve existing technological processes in order to increase the efficiency of the use of natural resources and other.

Programmes and measures in households and tertiary sectors are focused on upgrading multifamily buildings and public buildings. For modernization of multifamily buildings soft loans are provided based on updated financing model. Financial resources from state and municipal budgets, EU Structural Funds 2007-2013 are used to upgrade public buildings. The upgrading of multifamily buildings is expected to result in energy savings of 1000 GWh in 2020 and modernization of public buildings - in additional energy savings of 250 GWh in 2020 .

In transport sector measures are focused on development of road infrastructure, upgrading of public transport parks and informational/educational purposes like ecological driving or a day without car. EU Structural funds 2007-2013, State budget funds and financial resources from Special Programme for Climate Change are used.

Main energy efficiency policy measures and their impacts

Sector	Main objectives and measures	Impacts
Cross-sectoral	<i>National Energy Independency Strategy</i> aims at setting the main goals for Lithuanian energy sector development. In the scope of energy efficiency, energy policy should develop in a way that energy efficiency would increase by 1.5% a year.	N/A
Industry	<i>EU Structural Funds 2007-2013 for More Efficient Cogeneration and Heat Supply Systems</i> aim at implementing advanced and efficient energy production technologies and increase the efficiency of energy production by providing grants. <i>Lithuanian Environmental Investment Fund</i> aims at providing subsidies to finance the investment projects with environmental benefits and projects contributing to improvement of energy efficiency.	7 projects were financed and implemented. Total planned installed electrical capacity is 49.5 MW and heat capacity - 69.2 MW in industrial enterprises. In 2012, financing was appointed to 7 projects. Energy savings achieved are 4.3 GWh. Till the end of 2020, it is expected to save 34.4 GWh.
Buildings	<i>Programme for the Renovation/Upgrading of Multifamily Buildings</i> aims at providing soft loans to implement energy efficiency increasing measures in multifamily houses. <i>EU Structural Funds 2007-2013</i> aim at supporting	501 multifamily houses were renovated during 2005-2013. Heat energy savings are 87.13 GWh per year and GHG emission reductions - 22.02 kt per year.

diffusion of information regarding modernization of multifamily houses, informing and consultation of owners of multifamily houses, preparation of typical projects and monitoring of results of implemented projects. N/A

Special Programme for Climate Change aims at supporting general repair of cold and hot water supply systems, change and reconstruction of air conditioning and ventilation systems, change of windows and outside doors, insulation of roofs, floor and walls, installation of solar collectors, wind power plants, geothermal plants, installation of biomass boilers. N/A

Transport

EU Structural Funds 2007-2013 for Comprehensive Development of Ecological Public Transport aim at comprehensively modernizing the system of public transport services in order to reduce air pollution, ensure a more efficient transportation of urban residents, promote workforce mobility, reduce traffic congestion, enhance traffic safety, and ensure high-quality public transportation services.

In 2012, 12 energy efficiency projects were being implemented in 5 municipalities. Updated 68 public transport vehicles.

Public services

EU Structural Funds 2007-2013 aim at supporting the repair and/or renovation of public buildings' external envelope and upgrading and/or reconstruction of building energy systems by improving their technical characteristics at national and regional levels.

By the end of 2013 140.74 GWh of energy was saved.

Programs for Modernization of Educational Institutions, Libraries and Cultural Centers aim at establishing conditions to reduce energy consumption in public buildings, to improve educational environment, quality of trainings and working conditions.

In 2012, 119.17 GWh of energy was saved.

Renovation of State Institutions aims at supporting living (halls of residence, orphanages and etc), administration, science, health, culture and other special buildings that do not satisfy minimum energy efficiency requirements set in STR 2.01.09:2012. It ensures that since 2014 at least 3% of State buildings' area was renovated every year. N/A

