ODYSSEE-MURE

Energy Efficiency Country Profile: Czech Rep.

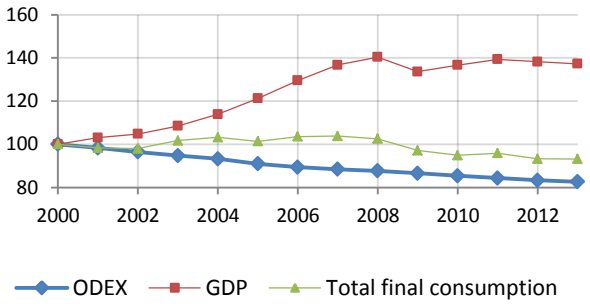
September 2015

Energy Efficiency Trends

Overview

The energy efficiency index progressed by 17.7 % during the period 2000 – 2013 at the average annual tempo 1.33 %. The energy efficiency of the household sector improved by 23 %, the industry improved by 19.1 %, the ODEX of the tertiary sector decreased by 20.31 % and energy efficiency index of transport improved only by 7.8 % in the period 2000 – 2013. The primary energy intensity (in purchasing power parities) was 42.4 % higher in the Czech Republic than the EU28 average in the year 2012. The final energy intensity (in purchasing power parities, scaled to EU28 average climate and structure of sectors) was by 11.2 p. p. higher than the EU28 average in the same year. The energy efficiency index dropped by 3 % more in the Czech Republic than in the EU28 in the period 2000 – 2012.

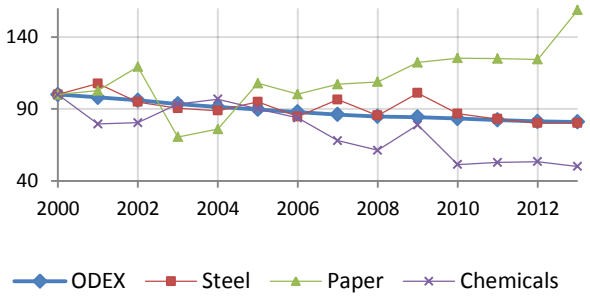
Energy cons., GDP and energy efficiency index (100=2000)



Industry

The energy efficiency index of industry improved by 19.1 % from 2000 to 2013. Unit consumptions for production of steel, chemicals and paper suffer from big fluctuations. However, we can find visible trends in all three curves. Paper production has increasing unit energy consumption and the deterioration between 2000 and 2013 amounted 59 %. Energy efficiency of steel has a stagnating tendency and chemicals productions has rather positive tendency in the period 2000 – 2013. Energy efficiency index of chemicals production dropped by 50 %.

Main energy efficiency indicators in industry (100=2000)

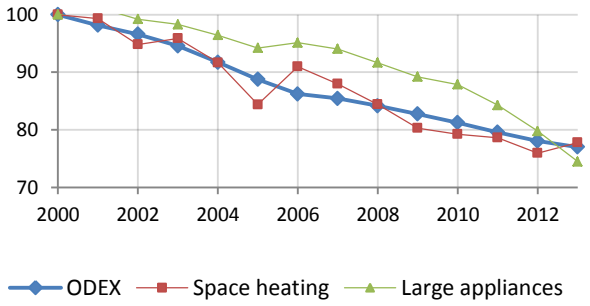


Chemicals : toe per unit of production index
Paper, steel: toe per tonne

Households

Energy efficiency index, unit energy consumption for heating and unit electricity consumption of appliances show steady decrease and all three indices concluded near the value of 75 % in the year 2013. This decline in energy consumption results from improving the status of buildings, better appliances and also growing energy prices. The improvements are partially compensated by higher living standard and increased number of dwellings. The ODEX decrease during the period 2000 – 2012 is by 3.2 p. p. higher than the EU28 average of 18.7 %.

Main energy efficiency indicators in households (100=2000)

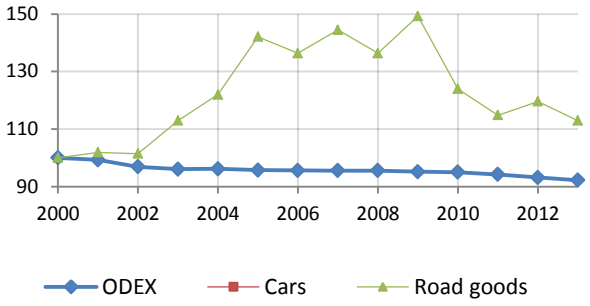


Space heating : koe per m2
Large electrical appliances: kWh per dwelling

Transport

The energy efficiency index of transport was dropping slowly in the period 2000 – 2013, when it decreased only by 7.8 %. This development is influenced by growth of road transport instead of public transport modes and lower capacity utilisation in road transport. Import of old used cars from the Western Europe plays a negative role as well. The energy efficiency index improvement in the Czech Republic was by 6.3 p. p. worse than in the EU28 in average during the period 2000 – 2012.

Main energy efficiency indicators in transport (100=2000)



Cars: litres per 100 km
Road traffic of goods (trucks): koe per tonne-km

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Energy Efficiency Policy

Institutional and energy efficiency targets:

The National Energy Efficiency Action Plan (NEEAP) represents the dominant tool of the Czech energy efficiency policy. The 1st and 2nd NEEAPs require reaching 9% energy savings in 2016. The 2nd NEEAP expected savings of 19,724.4 TJ for the period 2008 – 2010 and according to NEEAP evaluation savings of 27,097 TJ were reached.

The Czech energy saving target in the 3rd NEEAP is set to 47.78 PJ of new savings in 2020. It corresponds to 6.83 PJ or 1.5 % of annual savings.

The Czech government decided to use an alternative scheme to comply with Article 7 of the Energy Efficiency Directive and the selected alternative measures are mainly of financial character.

The "Operational Programme Enterprise and Innovation for Competitiveness" is currently the most important measure supporting energy savings in industry.

The largest Czech programme promoting energy savings and RES is "Green Savings Programme", designed mainly for owners of family houses. The programme started in 2009 and it is supposed, with some modifications, to continue up to 2020.

Transport does not represent a priority in the Czech energy saving efforts. The most significant potential of energy savings lies in the reduction in energy demand of passenger cars put on the domestic market.

Main energy efficiency policy measures and their impacts

Sector	Main objectives and measures	Impacts
Cross-sectoral	Benefits of implementing the recommendations of mandatory energy audits	Average annual savings 760 TJ in the period 2008 – 2016
	Eco-design Directive for Energy-using Products	Average annual savings 123 TJ in the period 2011 – 2020
Industry	Promotion of energy savings in industry in the Operational Programme Enterprise and Innovation for Competitiveness	Average annual savings 2,286 TJ in the period 2016 – 2020
Buildings	Promotion of energy savings in family houses in the Green Savings Programme	Average annual savings 2,043 TJ in the period 2014 – 2020
	Integrated Regional Operational Programme	Average annual savings 1,286 TJ in the period 2014 – 2020
Transport	Emission and performance standards for new passenger cars	Average annual savings 764 TJ in the period 2013 – 2020
Public services	Operational Programme Environment 2014 – 2020	Average annual savings 283 TJ in the period 2014 – 2020
	Extension of the role of public sector in demonstrating new technologies	Average annual savings 288 TJ in the period 2007 – 2020