

Energy Efficiency Trends

Overview

In Denmark, the energy efficiency of final consumers improved by around 5% from 2000 to 2012. The index referred to as ODEX, experienced a decrease from 100 in 2000 to 86 in 2012 (i.e. 1.3%/year on average). All sectors have contributed to this significant improvement in energy efficiency.

A drop in final energy consumption from 2008 to 2009 after years of a steady increase is caused by the financial crisis.

Industry

The energy efficiency in industry has improved by around 16% between 2000 and 2012 (i.e. 1.5%/year). Chemical industry has contributed with an improvement of 44%. In paper industry, the energy efficiency has improved by 52%.

Households

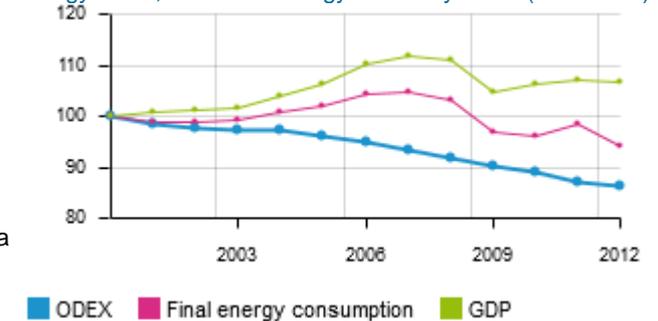
Between 2000 and 2012, the energy efficiency of households improved by 15% (1.3%/year). For space heating, the improvement in efficiency was 19%. Substitution of old oil burners with new natural gas burners and district heating has contributed significantly to the improvement. In the same period, large electrical appliances exhibited an improvement in energy efficiency by 28%. This development, and a decrease in the use of electricity for heating, has contributed in stabilizing the total electricity consumption in the Danish household sector.

Transport

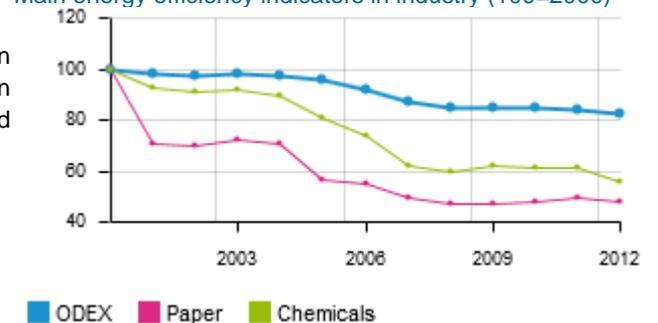
Between 2000 and 2012, energy efficiency of the transport sector improved by 13%, respectively 8% and 3% for cars and trucks).

Between 2000 and 2008, the ODEX improved by 5.1% (0.7%/year). Between 2008 and 2012, the energy efficiency improved by 7.5% (1.6%/year).

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

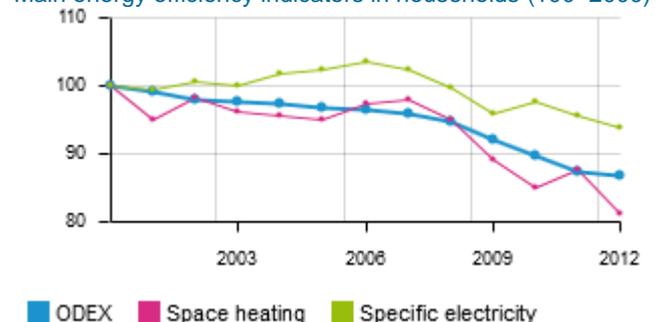


Main energy efficiency indicators in industry (100=2000)



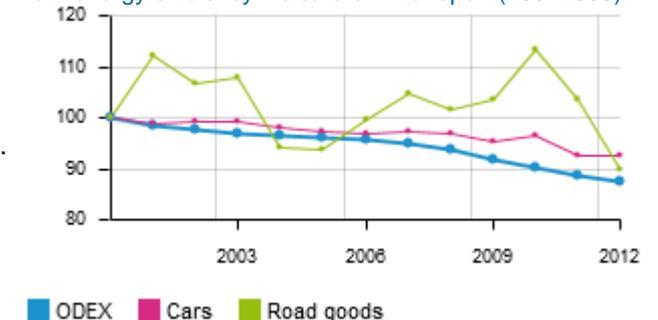
Chemicals : toe per unit of production index
Paper: toe per tonne

Main energy efficiency indicators in households (100=2000)



Space heating : koe per m2
Specific electricity (except space heating, cooking, water heating): kWh per dwelling

Main energy efficiency indicators in transport (100=2000)



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

Energy Efficiency Policy

Institutional and energy efficiency targets:

The Danish government has a clear ambition: Denmark should be independent of fossil fuel by 2050. A key element in fulfilling this target is energy efficiency along with an increased use of renewable energy. A more efficient energy consumption will help make the transition to renewables as cost effective as possible. The two main documents on the energy policy and the outline of the energy efficiency activities are:

- Our future energy, November 2011
- Energy Agreement of 22 March 2012.

The Minister of Climate, Energy and Building is responsible for national and international efforts on energy issues. The Danish Energy Agency is adviser to the minister, assist other authorities, administer of Danish energy legislation and conduct analysis and assessments of development in the energy sector.

Energy efficiency has been an important part of the Danish Energy policy since the oil-crisis in the 1970'ies. The Danish approach to increase energy efficiency is first of all to ensure stability by having long term political agreements, secondly to have a broad focus on both households, industry and buildings at the same time and thirdly to use a variety of measures both economic incentives, standards and information.

One of the main incentives of the Danish energy efficiency policy is the Energy companies' savings effort. It was introduced to the Danish energy policy in 2006 and the target has continuously been strengthened. Energy efficiency in buildings has been highly prioritized in Danish energy policy. This was underlined with a building renovations strategy launched in May 2014, focusing on energy renovation of existing buildings. The target is a 35 pct. reduction of energy consumption of buildings in 2050.

Main energy efficiency policy measures and their impacts

Sector	Main objectives and measures
Cross-sectoral	The Energy companies savings effort (Energy saving obligations for utilities)
Industry	Mandatory Energy Audit for large Enterprises Centre for energy savings in enterprises
Buildings	Strategy for energy renovation Better Homes
Transport	Green owner Fee Energy and emissions regulations for taxis, limos and healthcare transportation.
Public services	Promoting energy renovation in the public sector
Cross-sectoral	The Energy companies savings effort (Energy saving obligations for utilities)