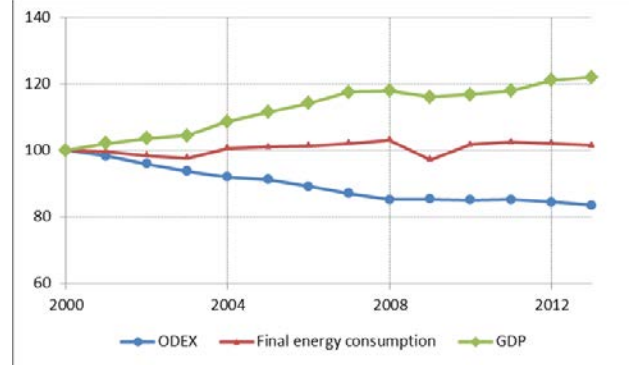


Energy Efficiency Trends

Overview

The ODYSSEE energy efficiency index (ODEX) is calculated from unit consumption trends by sub-sector. From 2000 to 2013 it is calculated an improvement in energy efficiency of 17% or 1.4% per year, corresponding to a decrease in annual energy consumption of 29 TWh. The annual growth of the Norwegian economy was in average 1.8% from 2000 to 2014, measured as the overall gross domestic product (GDP). The growth was highest until 2008, had a small recession in 2009 and continued to grow after that. The final energy consumption has been 212-229 TWh per year in the period 2000 to 2013 with a maximum in 2010 and a minimum in 2009.

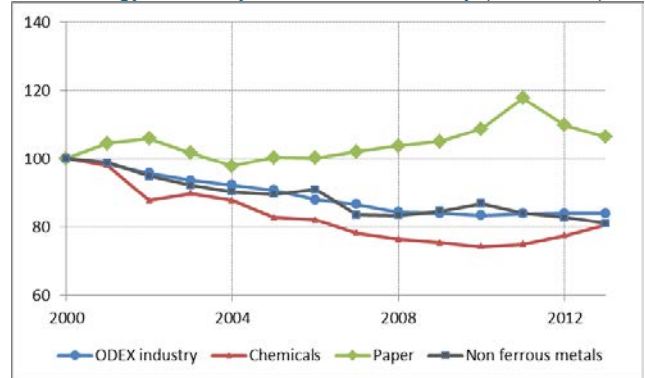
Energy cons., GDP and ODEX (100=2000)



Industry

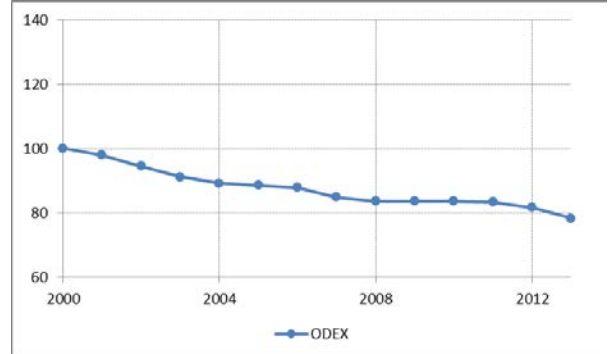
The energy efficiency index of industry has decreased by 16%, an annual improvement of 1.3 %, but the ODEX of 2013 is almost the same as in 2008. Production of non-ferrous metals uses 1/3 of the energy in industry and has major impact on the total industry ODEX. Energy use per ton produced has decreased by 19% from 2000 to 2013. The indicator energy use per production index of chemical industry has decreased by 19% from 2000 to 2013. The production index of all chemical industry has increased more than the production index of basic chemicals since 2000, resulting in a decrease in energy intensity for the chemical industry. The pulp and paper industry has had problems with low earnings and the production volumes are considerably reduced. The energy use per ton paper produced has increased by 6% from 2000 to 2013.

Main energy efficiency indicators in industry (100=2000)



Chemicals : toe per unit of production index
Paper, non ferrous: toe per ton

Main energy efficiency indicators in households (100=2000)



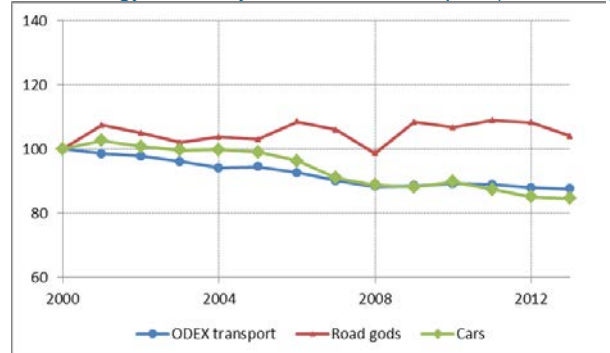
Households

The household sector had an annual improvement of 1.9 % from 2000 to 2013 with a considerable improvement after 2011. But one should be aware that the data of 2013 are preliminary. In order to calculate the ODEX of the household sector, the energy consumption should be known for end-use sectors as space heating, hot water, cooking and large appliances. Since this data is not available in Norway, the calculations are simplified and based on estimates. The household ODEX is therefore to be regarded as an estimate of the development in the sector.

Transport

The transport sector has in overall improved the energy efficiency index by 12% or an annual improvement of 1.0%. The road traffic of goods measured as energy use per ton-km has increased by 4% from 2000 to 2013. The specific consumption of cars in liters per km was 15% less in 2013 compared to in 2000.

Main energy efficiency indicators in transport (100=2000)



Energy Efficiency Policy

Institutional and energy efficiency targets:

The alteration to a more environmental friendly production and use of energy in Norway is managed by Enova SF. Enova is a public enterprise for promoting energy savings, and production of energy from renewable resources which is fully owned by the Government of Norway, represented by the Ministry of Petroleum and Energy.

The main mechanisms Enova relies on are financial instruments and incentives to stimulate market actors and mechanisms to achieve national energy policy goals, but the agency also provides advice to both households and the private sector on energy saving measures.

Enova SF administrates the Energy Fund. The income of the Energy Fund comes from a levy to the distribution

tariffs that is mandatory and from allocation from the revenue of the Fund for climate, renewable energy and energy restructuring. In 2014, the total income was just under NOK 1.9 billion. With resources from the Energy Fund, Enova has in cooperation with the market triggered annual energy results totaling 18.7 TWh during the period 2001 to 2014.

The government agency Transnova was established in 2009 as a trial funding programme with the goal of contributing to halt the trend of the fast increase of greenhouse gas emissions from transport. As per January 1st 2015, Transnova became part of Enova which is now responsible for managing the funding programs directed towards the transport sector.

Main energy efficiency policy measures and their impacts

Sector	Main objectives and measures	Impacts
Cross-sectoral	Energy Fund The purpose is to promote environmentally friendly restructuring of energy end-use and energy production, as well as contribute to development of energy and climate technology.	The overall energy result for 2014 was 1689 GWh (sum of sectoral results) of which the energy efficiency result was 964 GWh.
Industry	Enova support schemes - energy management - energy measures - new energy and climate technologies	Energy efficiency results 2014 648 GWh
Households	Enova Recommends - a scheme which shall make it easier to choose products and solutions with good energy performance Enova support schemes - investment grant for selected technologies	Energy efficiency results 2014 18 GWh
Transport	Introduction of battery electric vehicles Enova support schemes - energy management - energy measures maritime & land-based transport - new energy and climate technologies - biogas and biofuels - electric charging infrastructure	13% of new car registrations in 2014 were zero emission cars.
Tertiary	Enova support schemes - energy measures - new energy efficient buildings	Energy efficiency results 2014 294 GWh