

Energy Efficiency Trends

Overview

The Austrian energy efficiency index for the whole economy (ODEX) improved by 11% between 2000 and 2012, compared to a figure of 15% for the European Union. The average improvement rate was 1.0% per year. Within the years 2008 - 2010, Austria experienced a negative energy efficiency development. Most of the efficiency improvements were achieved in the households and transport sectors, whereas energy efficiency in industry fluctuated and ended up at a similar value in 2012 as compared to 2000.

Industry

Energy efficiency in the industry sector improved by 1% over the period 2000 - 2012. This value is far behind the respective figure for the EU, where efficiency improved by 14%. The peak regarding energy efficiency in Austria in the period under review is recorded for the year 2010, which shows an improvement of efficiency by 6% compared to 2000. In the three-year period from 2007 to 2010, efficiency in industry decreased by 9%. Among the manufacturing branches involved, the largest improvements were obtained in the transport vehicles, steel and chemical industry. Some branches like wood, non-ferrous, non-metallic, food, textiles and machinery & fabricated metals posted a negative development. Energy efficiency in both mining and construction decreased in the period.

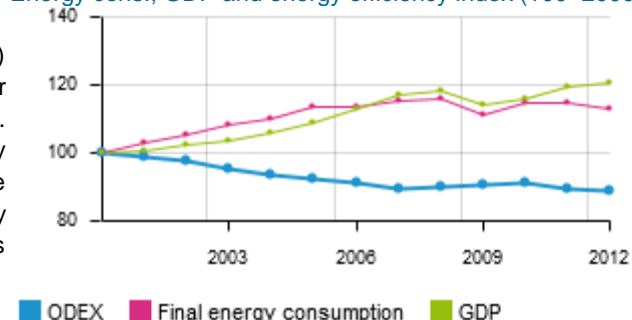
Households

In the household sector, energy efficiency improved by 20% in Austria over the period 2000 to 2012, compared to 19% for the EU. Space heating efficiency improved by 23% over the period under review; however, the largest improvements are observed in the years before 2004. The improvements in heating are mainly due to the increasing share of well-insulated dwellings, which outweigh the effect of a larger number of single family homes and larger floor areas. The average specific consumption of large electrical appliances per household increased steadily, namely by 7% over the period 1990 - 2010. While energy efficiency of cooking increased by 31% over the period, efficiency of water heating rose by a mere 5%.

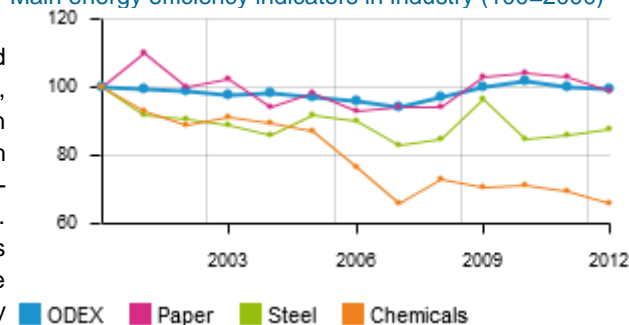
Transport

Transport energy efficiency improved steadily by 18% over the period 2000 - 2012, compared to 13% for the EU. This development is caused by efficiency improvements both in road transport (in particular, progress by 13% for trucks and light vehicles and 18% for cars) and rail transport (progress by 34%). Air transport shows an increase of efficiency by 26%. Water transport records a decrease of efficiency by 21%.

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

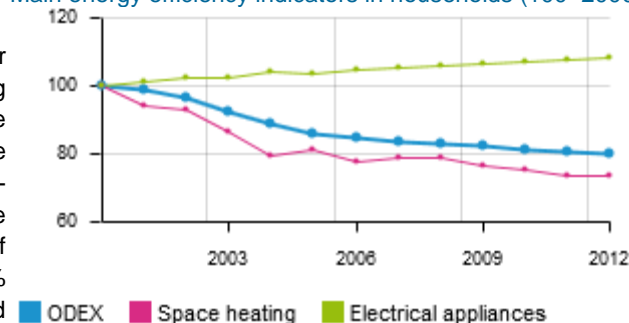


Main energy efficiency indicators in industry (100=2000)



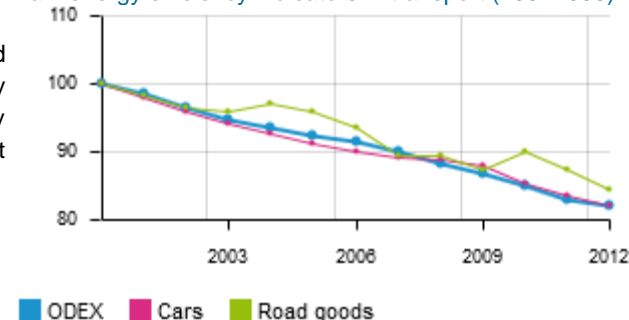
Chemicals : toe per unit of production index
Paper, steel: toe per tonne

Main energy efficiency indicators in households (100=2000)



Space heating : koe per m2
Large electrical appliances: 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:

In the first National Energy Efficiency Action Plan (NEEAP) in connection with the ESD, Austria calculated a 2016 savings target of EUR 80.4 PJ in accordance with the Directive. This means that savings of at least 80.4 PJ in final energy should be achieved by 2016 as a result of energy efficiency measures.

The on-going voluntary agreements in place since 2009 define quantitative energy savings targets for the participating organisations up to 2016. These are as follows:

- For the Association of Gas and Heat Suppliers: 1,800 TJ (500 GWh)
- For 'Oesterreichs Energie' (Association of Austrian Electricity Companies): 1,512 TJ (420 GWh)
- For the Petroleum Industry Association and the Energy Trading Association (a voluntary agreement in which both associations participate): 7,560 TJ (2,100 GWh)

In these voluntary agreements, the interest groups undertake to encourage their member companies to adopt energy efficiency measures and energy services by making these measures and services available to them. The

measures for achieving these saving targets can be freely selected by the companies, insofar as they are energy efficiency measures and energy services. The voluntary agreements are subject to regular monitoring.

In accordance with Article 3 of the EED, each Member State was obliged to set an indicative national energy efficiency target by the end of April 2013.

In 2013, in the first annual report pursuant to Article 24(1) of the EED, Austria notified the following national indicative energy efficiency target to the European Commission in accordance with Article 3(1) EED (BMWFJ, 2013):

- The indicative national energy efficiency target for Austria is a **final energy consumption of 1,100 PJ in 2020**
- This target for final energy consumption in 2020 corresponds to final energy savings of 200 PJ compared to a 'business as usual' scenario.

For primary energy consumption (gross domestic consumption less non-energy consumption), this target represents a value of 1,320 PJ in 2020.

Main energy efficiency policy measures and their impacts

Sector	Main objectives and measures	Impacts
Cross-sectoral	"klima:aktiv", the national programme for climate protection, which runs since 2005. The aim of this long-term programme is to widely introduce energy efficient and climate-friendly technologies and services in the fields of construction and living, mobility, company policies and renewable energy sources. The programme includes more than twenty thematic sub-programmes.	klima:aktiv is triggering CO ₂ reductions in context with further measures such as subsidies. A quantitative impact evaluation of klima:aktiv is hardly possible. For the transport part of the programme, CO ₂ reductions are calculated for every single project. A total CO ₂ reduction within transport projects of 570.000 t/a is estimated.
Industry	'Environmental Support' – grants for companies with the emphasis on climate protection, energy saving, renewable energies and prevention of air pollution	5,578 TJ of energy savings are expected for the year 2016
Buildings	Smart Metering and Informative Billing	14 TJ of energy savings are expected for the year 2016
Transport	Standard Fuel Consumption Tax (NoVA), calculated on the basis of CO ₂ emissions.	Reduction potential of 0.35 million t CO ₂ /a
Public services	topprodukte.at – Platform for energy efficient appliances	No quantitative impact evaluation available
Tertiary	Energy saving programme for federal buildings	No quantitative impact evaluation available