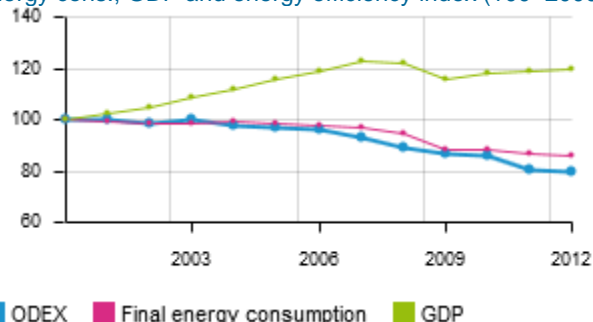


## Energy Efficiency Trends

### Overview

Energy efficiency with regard to final energy consumption, as measured by the ODEX, has improved by 21% between 2000 and 2012, which translates into an average gain of 1.7%/year. The largest improvements since 2000 have been realised in the industry sector (2.1%/year), followed by the household sector (1.8%/year). The slowest progress has been made in the transport sector with about 1.2%/year.

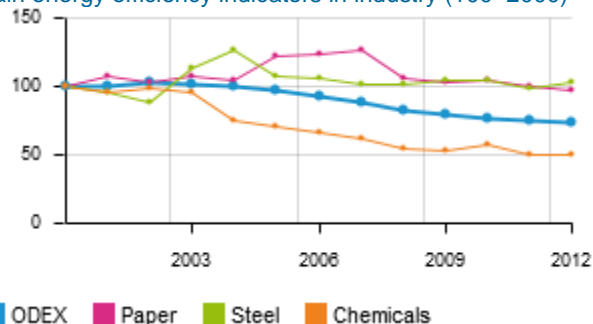
Energy cons., GDP and energy efficiency index (100=2000)



### Industry

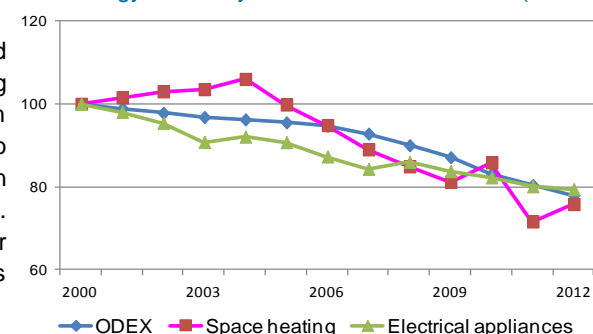
During the period 2000–2012 the UK industrial ODEX has improved by around 26%, with steady overall year-on-year progress being made after an initial period of stagnation in the early 1990s. Within energy-intensive sub-sectors, the unit consumption of steel increased towards the end of the 1990s before starting to decline before stagnating and then increasing slightly again in recent years. Overall, energy efficiency from 2000 to 2012 has remained at a similar level. For Paper a similar trend can be observed. Chemicals show a significant improvement in terms of energy efficiency amounting to 50% over the period 2000-2012.

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

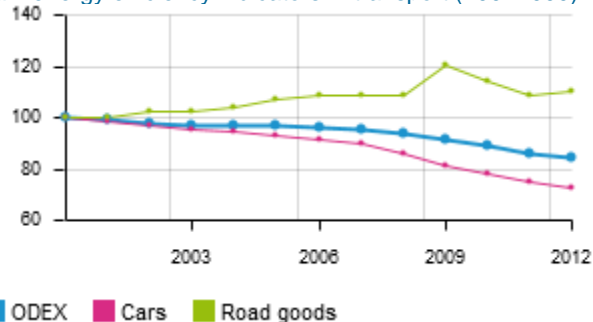
### Households

Overall the household energy efficiency ODEX has improved by around 22% over the period 2000-2012. Relatively little progress was made during the 1990s but since 2004 significant improvements can be observed with an average improvement of 4% year on year to 2012. This is largely due to insulation measures and heating system upgrades and despite an increasing number of properties and an increase of room temperatures. Electricity consumption has increased in the past due to a growing number of appliances in households such as TVs and new communication devices but since 2004 a reduction of about 10% can be observed.

### Transport

The transport energy efficiency ODEX has improved steadily over the period 2000–2012 by approximately 15%. This is due to a gradual improvement in car efficiencies, which are the dominant consumer of UK transport energy. However, some of these improvements in car and air transport have been counterbalanced by a decrease in the efficiency of road freight transport during the recession. Road freight efficiency has now returned to its pre-recession level.

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 2012, the UK Government launched its Energy Efficiency Strategy (updated in 2013), which identified the barriers to energy efficiency take up and the socially cost-effective energy efficiency potential that remains in the UK economy.

In the household sector a succession of Energy Efficiency Obligations from 1994 to 2012 delivered most of the insulation measures and promoted energy efficient heating systems and appliances. New targets have been set for the period 2013-2017 albeit on a smaller scale.

The EU Emissions Trading Scheme (EU ETS), which covers 40% of UK emissions, is a key EU measure driving energy efficiency improvements in the industry sector. In addition, the UK introduced the Climate Change Levy, (a tax on the business use of fossil fuel energy) in 2001. Companies that are part of Climate Change Agreements (CCAs) and which successfully meet the conditions of their agreement are eligible for a discount on the levy.

The Government also implemented the CRC Energy Efficiency Scheme which targets large, non-energy intensive businesses and public sector organisations and emissions not already covered by the EU ETS or Climate Change Agreements.

The 2013 Spending Round announced £500 million to support the development of the Ultra Low Emissions Vehicles market from 2015-2020. The Renewable Transport Fuel Obligation (RTFO) obligates fossil fuel suppliers to produce evidence that a percentage of fuels for road transport supplied in the UK come from renewable sources and are sustainable.

### Main energy efficiency policy measures and their impacts

Sector	Main objectives and measures	Impacts
Industry	Climate Change Levy	2020: 10.8 PJ/year
	Climate Change Agreements	2020: 16.2 PJ/year
Buildings	Energy Efficiency Obligations	2020: 20.5 PJ/year
	Green Deal	2020: 3.6 PJ/year
	Building Regulations	2020: 118.4 PJ/year
Transport	Ultra Low Emissions Vehicles policies	2020: 4.3 PJ/year
Public services	Salix	2020: 0.5 PJ/year
	Greening Government Commitments	2020: 0.7 PJ/year
Tertiary	Carbon Reduction Commitment	2020: 23 PJ/year

Source: MURE database and 2014 NEEAP