



Energy Efficiency Profile: Sweden

May 2011

Energy Efficiency Trends

Overview

Since 1990, energy efficiency has improved by 18 % for the economy as a whole. Since 2000, the efficiency has improved by 7%, a bit less than the EU average.

Industry

The efficiency in the industrial sector has progressed by 17 % between 1990 and 2008. The greatest efficiency improvement is made within the machinery industry, followed by paper, pulp and printing. Energy efficiency in intensive industry such as the steel industry as measured per ton of steel has decreased by 50% since 1990.

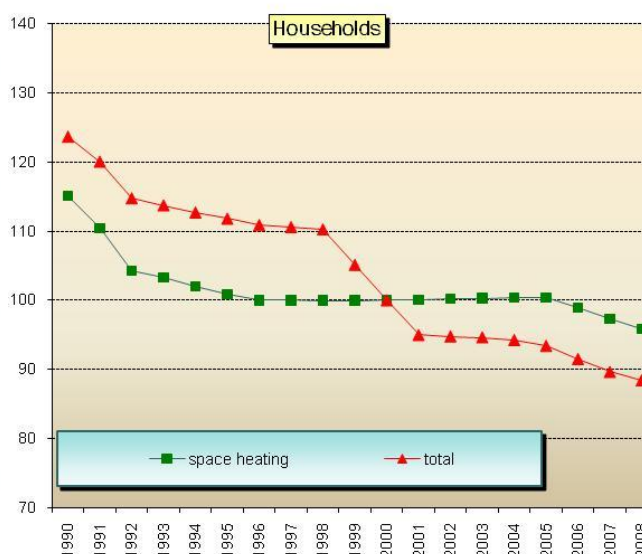
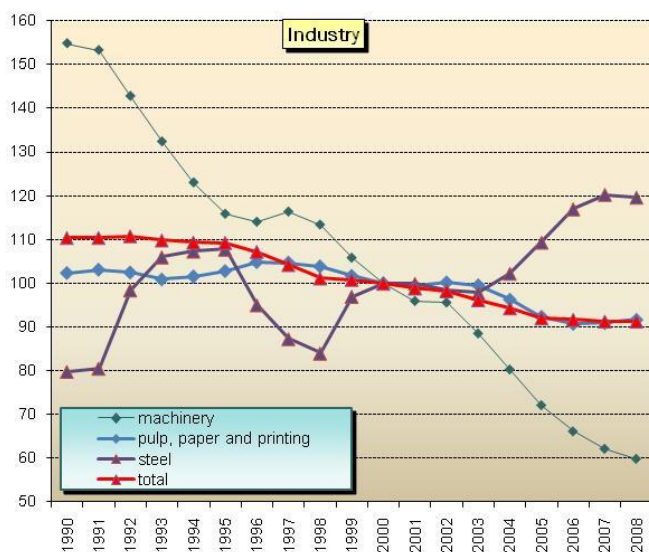
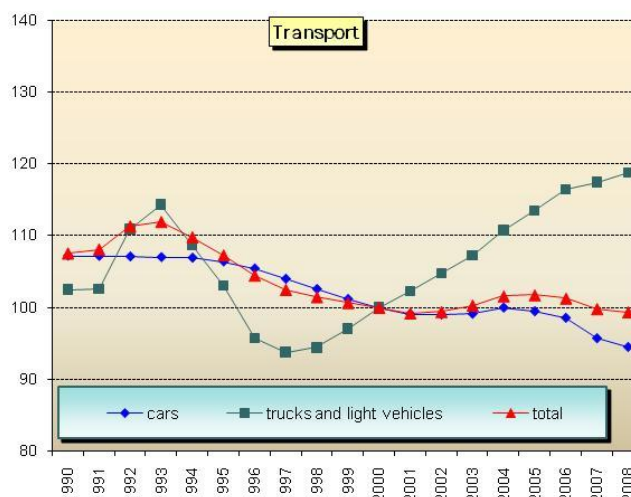
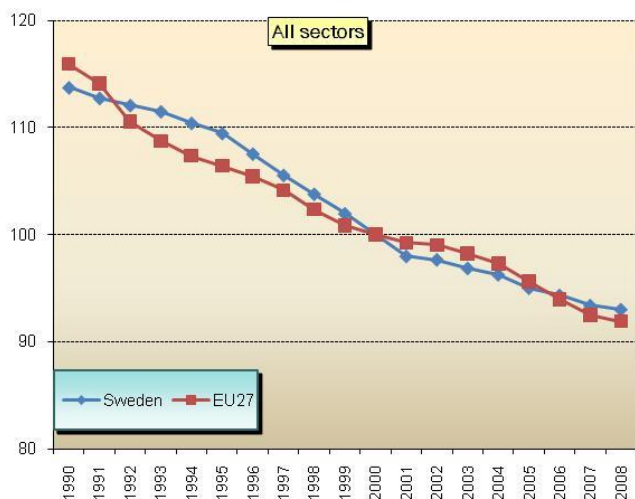
Households

In the household sector, the energy efficiency has improved by 29 % since 1990 and 12 % since 2000. The efficiency of heating has increased since 1990.

Transport

The overall efficiency improvement for transport is 8 % since 1990. The efficiency of cars has improved more, whereas trucks and light vehicles show a decrease in efficiency mainly since 1997.

Energy efficiency index (base 100=2000)*



* All indicators measured as a three-year moving average
Source ODYSSEE
For more information : <http://www.odyssee-indicators.org/>

Energy Efficiency Policy measures

Institutions and programmes

Since 1997 the **Swedish Energy Agency** (STEM) is the authority responsible for the implementation of energy policies set out by the government. There are also 13 regional energy offices as well as 290 municipal energy consultancy services funded by state support. There is also a broad programme for energy efficiency cooperation between the STEM and nearly a quarter of the Swedish municipalities.

Current energy efficiency policy is based on Government regulation 2008/09:163. Swedish energy policy in general is focused on the functioning of markets and thus a priority is to remove obstacles and to address market failures. A cornerstone of energy efficiency policy is taxation of carbon and energy content. In addition to this, research and information dissemination play a crucial role. Individual policy measures are e.g. the programme for energy efficiency in industry, vehicle taxation, and several measures applied to the building sector.

Industry

In July 2004, the tax on industrial process-related electricity was raised from 0 to 0,5 Euro per MWh. Industries are able to escape the tax in the production process by taking part in the **Programme for Energy Efficiency** in Energy Intensive Industry (PFE). A programme period lasts for five years, divided into two periods. During the first two years the firm needs to implement and certify a standardized Energy Management Systems (EMS). At the end of the first period, the firm has to present an evaluation of the two first years to the Swedish Energy Agency which includes suggestions of measures to improve the energy efficiency. The first programme period ended during 2009 and a new five-years program started the same year.

Households, Services

A major component of Swedish energy efficiency policy in the entire building sector is the creation of technology purchasing groups. These groups gather both owners and tenants for coordinated procurement of energy efficiency equipment or services. As a result, it is assumed that new technology will be stimulated and prices reduced, thus facilitating a knock-on effect on other actors in energy efficiency. Currently, there are procurement groups for commercial spaces, apartments, and facilities rented for public sector use.

The Swedish Energy Agency supports a five-year program by the Association of Swedish Construction Confederation to develop buildings with very low energy use (LÅGAN). Projects supported must reduce energy use by a minimum of 50% (either in new or refurbished buildings) and they are required to have significant demonstration value.

In 2009 a new subsidy for the installation of solar cells was introduced. The aim is to increase the use of solar-based energy by 2.5 GWh. In the end of 2011, the subsidy will be evaluated and its continuation will depend on the outcome of the evaluation.

Transport

Measures in the transport sector include vehicle tax based on CO₂ emissions. Particularly environmentally friendly vehicles are granted a waiver on the tax for five years. Information and awareness-making play an important role in the transport sector, too. Several projects on energy efficiency in traffic infrastructure have been carried out, such as lighting of roads and railway station areas. Public authorities are required to observe special rules for vehicle lease and purchase.

Energy prices and taxes

Since 1991, there is a CO₂ tax. In 2011, the tax was at around € 120 /ton, but it is reduced for several industrial sectors (outside the EU-ETS). Since 2009, the Government has gradually removed reductions with the aim of all emitters paying at least 60% of the standard tax by 2015.

The level of the energy tax will increasingly depend on the energy content of fossil fuels.

Budgets

The exact amount of resources budgeted to energy efficiency is difficult to establish, because several measures follow from other budget headings than energy efficiency. However, in accordance with Government regulation (Prop. 2008/09:163) between 2010 and 2014, energy efficiency is granted € 35 million annually. These resources are aimed at strengthening local and regional efforts, and to enhance information dissemination. But for instance tax reductions for individuals refurbishing their flats or houses also include energy efficiency measures.

Selected Energy Efficiency Measures

Sectors	Title of Measure	Since
Industry	Programme for Energy Efficiency (PFE)	2005
Household	Support for Solar Cell Systems	2009
Household	Revised construction regulations	2009
Transport	Eco driving in driver's license	2007
Household	Energy declarations	2006
Transport	Change in vehicle taxation	2006, 2009
Transport	Transport infrastructure energy efficiency	No particular starting year

Source MURE

For more information : <http://www.isisrome.com/mure/>

