



# Energy Efficiency Profile : Finland

May 2011

## Energy Efficiency Trends

### Overview

The overall energy efficiency index for Finland can be calculated only from 2000 to 2008 due to issues with older data.

### Industry

In industry, the dominating role of paper industry is shown in the fact that the energy efficiency index for the total industry follows closely that of the paper industry, a major industry in Finland. The improvement in industry as a whole has been 13% from 2000 to 2008. The energy efficiency index cannot be calculated before 2000 due to lack of data.

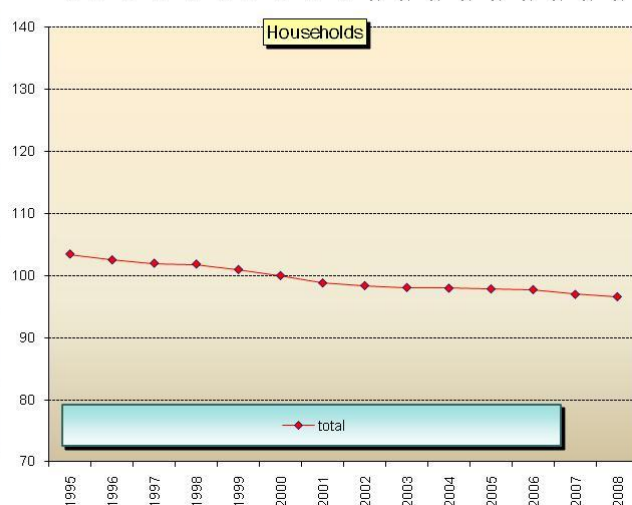
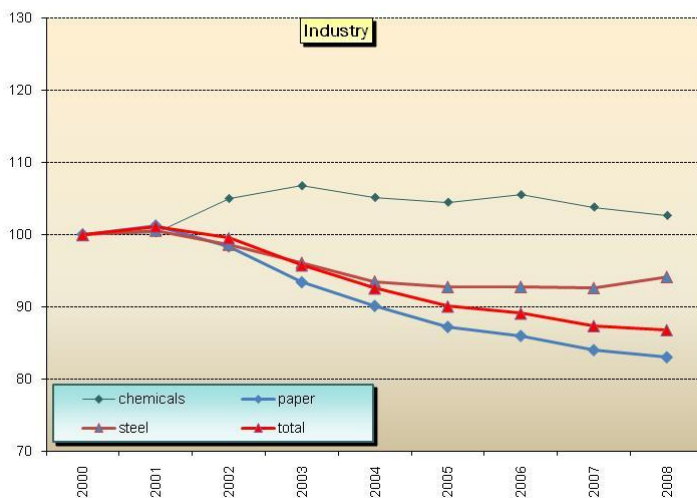
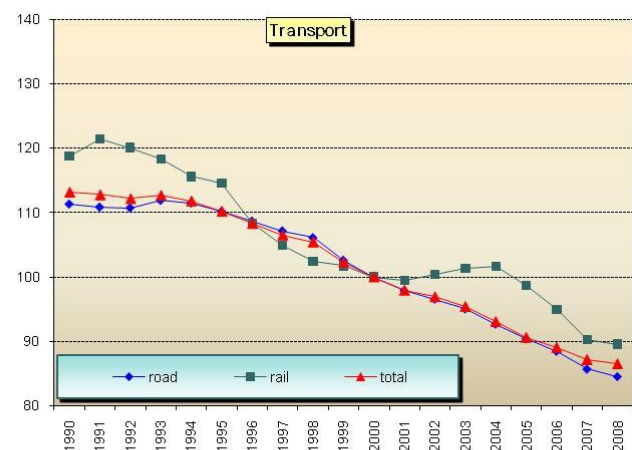
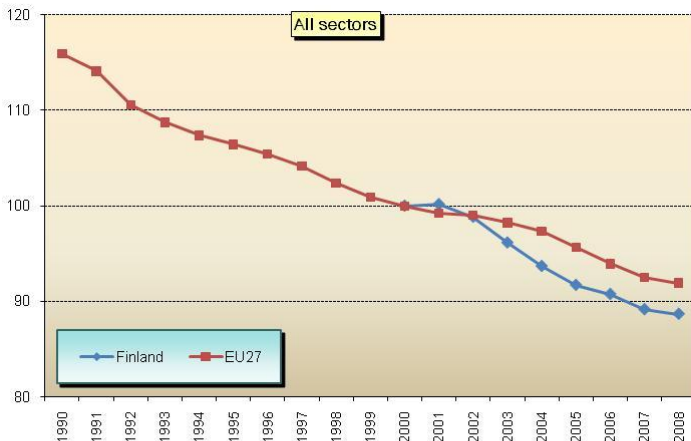
### Households

The energy efficiency of the household sector is closely connected to the energy efficiency of space heating, due to the cold and long winters. Data for household sector ODEX calculation is only available since 1995. The energy efficiency index of households has decreased by 7% from 1995 to 2008.

### Transport

The overall energy efficiency of transport sector has improved by 24% from 1990 to 2008. This is mainly due to unit consumption improvement of cars that are responsible for half of the energy use of the transport sector. Energy efficiency of busses, rail transport and air transport also improved significantly during the period 1990-2008.

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

The Long-Term Climate and Energy Strategy adopted in 2008 updated the former strategy from 2005. It lays down the roadmap for Finland to meet its targets for greenhouse gas reductions. The Government made a decision on energy efficiency measures over the next ten years on 4 February 2010. The objective of the action plan established by the decision is to meet the energy efficiency targets of the Strategy for the period 2010-2020.

The Energy Department of the Ministry of Employment and the Economy is the government institute responsible for energy policy. Motiva Oy is a state-owned company that helps the government to implement its energy efficiency measures.

## Industry

In industry, voluntary agreements have been one of the major measures to pursue energy efficiency since 1997 and the existing energy efficiency agreements extend over the 2008-2016 period. Energy savings made during the past agreement period totalled 6 280 GWh/a of heat and fuels and 1 070 GWh/a of electricity in 2007. The voluntary agreements also boost energy auditing which, like energy efficiency investments, are promoted by subsidies.

## Households, Services

In 2010, the Ministry of the Environment updated building regulations on heat insulation. They lead to 30% improvement in energy efficiency of new buildings. The next revision of the building regulations is foreseen for 2012. In Finland, the building regulations are strictly enforced.

Subsidies are available for households for improving heat insulation, renewing and repairing ventilation and heating systems and adopting renewable energy.

Several energy efficiency agreements are in place to improve energy efficiency in the household and service sectors. They cover municipalities (2008-2016); private services including commerce, hotels and restaurants and motor trades and repairs (2008-2016); the property and building sector (2010-2016); farms (2010-2016) and oil-heated buildings and distribution of liquid heating and transport fuels (2008-2016),

A recent new activity is the launch of the development of permanent consumer energy advice infrastructure.

## Transport

The energy efficiency agreements in the transport sector cover freight transport and logistics (2008-2016) and public transport (2008-2016). The latter comprises transport by buses and coaches, trams and local trains. The 2008 revision of the car tax made the taxes of passenger cars linearly dependant on their specific carbon dioxide emissions.

## Energy prices and taxes

Energy taxation aims to curb the growth of energy consumption and steer the production and use of energy towards alternatives causing less emissions. Tax based on the energy contents of fuels is levied on oil products, coal and natural gas. In addition, a carbon tax based on the carbon content of the fuel is collected for all fossil fuels; however, at a lower rate for natural gas. Electricity, peat and tall oil are subject to an energy tax which is not dependant on their carbon emission levels.

## Selected Energy Efficiency Measures

Sectors	Title of measures	Since
Industry and Services	The Energy Audit Programme	1992
Industry and Services	The Energy Efficiency Agreement for Industries and its predecessors	1997
Services	The Energy Efficiency Agreement and Programme for Municipalities and their predecessors	1997
Services and Households	Property and Building Sector Energy Efficiency Agreement (covering Rental Property Action Plan and Commercial Property Action Plan). Its predecessors date back to 2002 in the households sector and 1999 in the commercial and state properties	2010
Transport	The Energy Efficiency Agreement for Public Transport and its predecessors	2001
Transport	The Energy Efficiency Agreement for Freight Transport and Logistics and its predecessors	1999
Transport	Carbon emission dependent car taxation	2008
Households	Energy Efficiency Agreement for Oil-heated Buildings and Distribution of Liquid Heating and Transport Fuels (The Höylä III Programme and its predecessors)	1997
Households	Development of permanent consumer energy advice infrastructure	2011
Horizontal	Energy subsidy for energy audits and energy efficiency improvements	1992
Horizontal	Latest update of the thermal insulation regulations	2010

Source : MURE  
www.mure2.com

