



# Energy Efficiency Profile : Italy

October 2008

## Energy Efficiency Trends

### Overview

The improvement in energy efficiency is slow compared to EU average: 3.4% in the period 1990-2005. The index reflects the negative performance in industry, specially in years 1990s, and the quite good results achieved in transport and households in the period.

### Industry

The industrial sector showed a loss of 3.5% in energy efficiency index in the period 1990-2005. The loss in efficiency was steady until 2000 but in the last years it seems an improvement (1.2% in 2005 and 0.6% in 2006 compared with the previous year). The bad result in industry is because of the different performances of industrial branches: the increase in the energy efficiency of some branches as chemicals, steel and cement, wasn't enough to counterbalance the cut in machinery and fabricated metals, textile and food. In the last years it seems there is a reversal of trend, specially in food (improvement of 7.8% in 2000-2006).

### Households

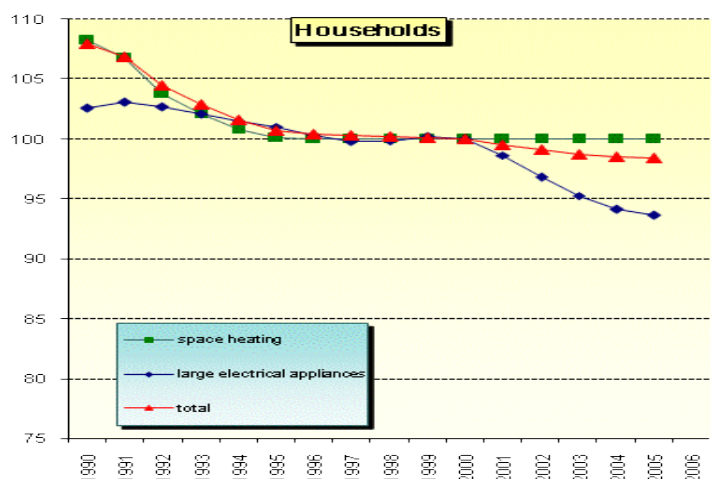
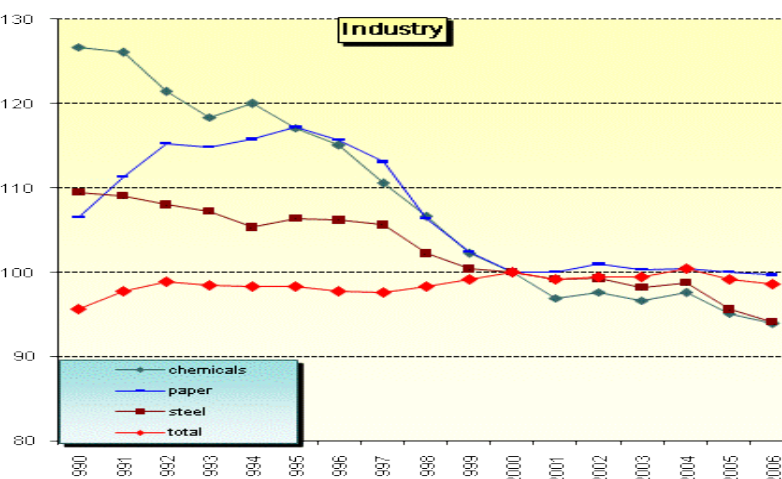
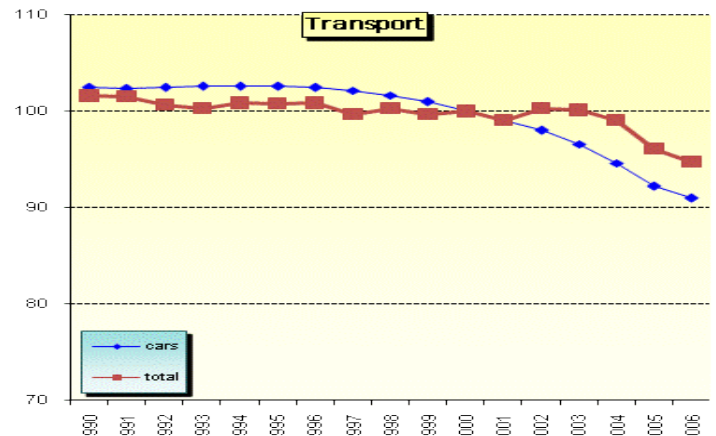
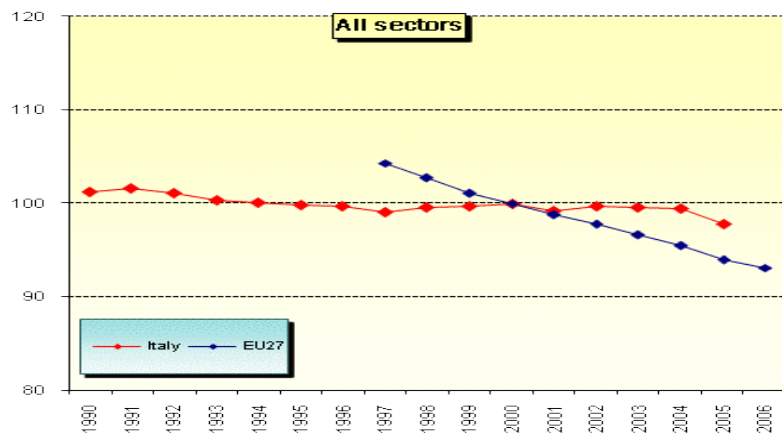
Households is the sector showed the best result in the improvement in energy efficiency: 9.6% in the period 1990-2005. In the first years 1990s there was the most increase

in energy efficiency, in the period 1996-2000 the improvement was slower. From the 2000 it's faster again because of a larger diffusion of electrical appliances with higher efficiency and increase in the use of fluorescent compact lamps. New measures are set to install the technologies for the efficient use of energy in the end-users such as interventions for the thermal isolation of the buildings, renewables for winter and summer air-conditioning. From 2000 the increase in the energy efficiency of large electrical appliances was 6.3% while it was 8.9% in the period 1990-2005.

### Transport

In the last years the energy efficiency in transport is improving more quickly: 5.5% in the period 1990-2005, but 3.9% in 2000-2005 and 1.4% in 2006 compared with 2005. This result is due principally to an increase in efficiency of cars (10.3%). The other transport modes show greater improvements in efficiency but they represent a little part of the transport sector. These good performances are counterbalanced by a decrease in the efficiency of trucks, even if in the last years some improvements seem to be carried out.

Energy efficiency index , base 100=2000



# Energy Efficiency Policy Measures

## Institutions and programmes

Italy submitted the action plan to achieve an energy savings of 9% in 2016 (directive 2006/32/EC). The plan shows the current and future actions sectors with an expected energy savings of 35.7 TWh/y in 2010 and 126.3 TWh/y in 2016.

From 2008 a fund of 40M€/y is established to promote renewable sources and energy efficiency.

New incentives are settled to increase the electricity generation from renewables (green certificates).

## Industry

Inside the "Industry 2015" programme (1,020 M€ in 2007-2009) to increase the competitiveness of the industry, the industrial innovation project on energy efficiency is settled. This project's aim is energy savings in industrial production and final uses and utilization of renewable energy sources. The actions concern investments in the sector of renewables, in new products with low environmental impact and capable of savings energy, in manufacturing processes to cut the energy intensity. The current actions involve the high efficiency cogeneration, the mechanical compression of steam, the use of high efficiency electrical engine and inverters and high efficiency fluorescent lamps with automatic control on the basis of the natural light.

## Households, Services

The Laws n. 296/06 and n. 244/07 sets the principles and the methods to improve the energy efficiency in households. New buildings can be built only if they have a renewables system to produce electricity with a power at least of 1 kW of electricity for each dwelling (for industrial buildings larger than 100 m<sup>2</sup> the limit is 5 kW) and they have to be built to realize water savings. For the existing buildings the law settles a tax deduction equal to 55% of the costs for actions in energy savings in buildings (high efficiency boilers, high efficiency glasses, installation of solar panels, insulation...), a tax deduction equal to 20% for the purchase of electrical appliances at least of A+ class (from 2010 the sale of electrical appliances of energy class lower than A is forbidden) and a tax deduction equal to 36% for the substitution with high efficiency lighting appliances in commercial buildings. In 2007 there were 106.000 interventions with an estimate of primary energy savings of 880 GWh/y and CO<sub>2</sub> avoided of 193,000 t/y.

## Transport

To promote the use of biofuel and other renewable fuels, the objectives of consumption in transport sector are increased at 2.5% within 31<sup>st</sup> December 2008 and 5.75% within 31<sup>st</sup> December 2010. The obligatory quota that has to be introduced in the consumption is 2.0% in 2008 and 3.0% in 2009. The action plan set the limit of emission equal to 140g CO<sub>2</sub>/km (average vehicles sold).

## Selected Energy Efficiency Measures

Sectors	Title of Measure	Since
All	Incentives for energy production using PV conversion from solar energy	2005
All	New decrees on energy efficiency	2004
All	Energy Efficiency Targets for Electricity and Natural Gas Supply Utilities	2001
All	Green Certificates for Energy Production from Renewable Sources	2000
Households	Energy Auditing of Buildings	2006
Households	Implementation of EU Directive 2002/91/CE on energy efficiency in buildings	2005
Transport	Implementation of EU Directive on use of biofuels	2005
Transport	Voluntary Agreement Ministry of Environment/FIAT/Unione Petrolifera for the promotion of Methane Goods Vehicles and Distributors	2003
Transport	Programmes for the Sustainable Mobility Enhancement	2001
Industry	Financing for energy efficiency and diffusion of renewables	2005
Tertiary	Installation of PV Roofs connected to the Power Grid [Programma Nazionale dei 10,000 Tetti Fotovoltaici]	2001
Tertiary	Installation of Solar Thermal Equipment in Central and Southern Italy Municipalities [Comune Solarizzato]	2001

Source: MURE data base

[www.mure2.com](http://www.mure2.com)

