



# Energy Efficiency Profile : France

September 2009

## Energy Efficiency Trends

### Overview

The energy efficiency of final consumers improved by 17% (or 1.1%/year) in France between 1990 and 2007. This is close to the EU average. All the sectors participated to this improvement.

### Industry

Energy efficiency improved by about 19% since 1990. Above-average improvements in energy efficiency could be observed in the steel, non ferrous and chemical industries. On the other hand, some branches have poor performance such as food, machinery and textile industries.

The intensity of manufacturing has decreased by 1.7%/year since 1990; these progress were mainly registered during the period 1993-2001, where structural changes explain one third of the energy productivity increase.

### Households

Less energy is required every year per dwelling for space heating; this is mainly explained by the increasing share of more efficient new dwellings in the total stock of dwellings, and the substitution to electricity.

According to that, energy efficiency improved by 21% between 1990 and 2007 in the households sector, due to progress realized for space heating (25% improvements) and for large electrical appliance (13%). Most of the progress have been realized until 1997 and after 2001.

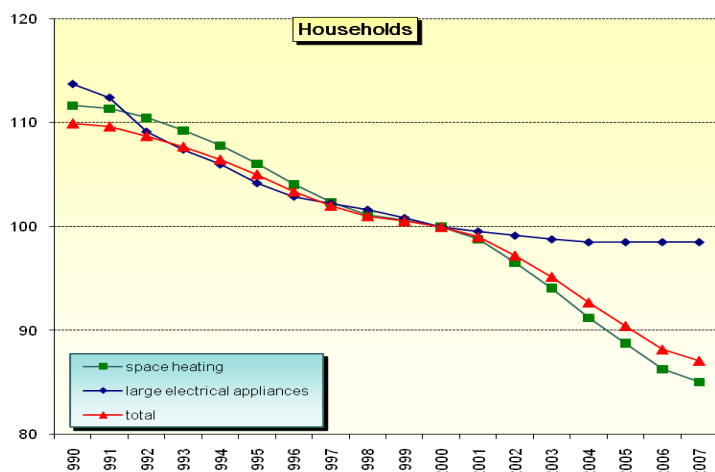
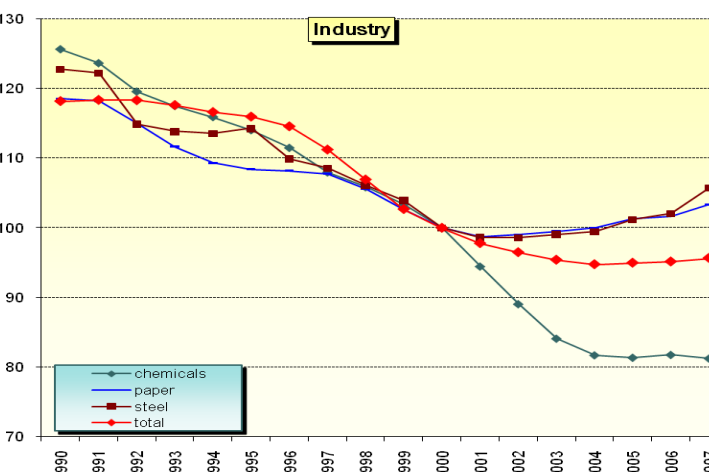
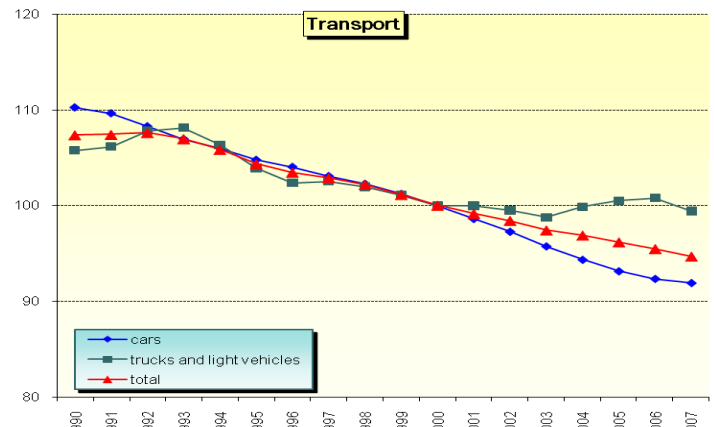
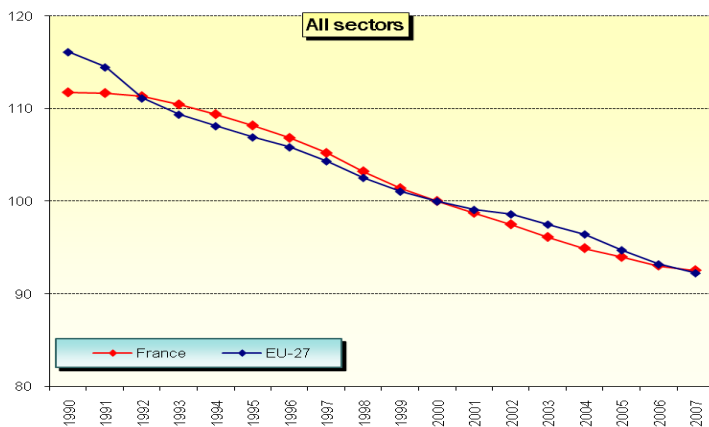
### Transport

The transport sector has experienced regular energy efficiency improvements (around 12% since 1990). The progress was the most significant for cars (17%); for trucks and light vehicles, it is around 7%.

The specific consumption of cars in litres/100km is regularly decreasing since 1990 (-1.1%/year), with improvements for new cars, even if part of this gain is offset by a shift to larger cars.

Since 1993, almost all traffic indicators tend to show a slow down of the energy demand growth of transport compared to the economic activity, except for rail.

Energy efficiency index , base 100=2000



# Energy Efficiency Policy Measures

## Institutions and programmes

ADEME is the national, agency in charge of implementing RUE, RES and environmental policies. It operates within a 4 years agreement with the government (2007-2010).

In terms of CO<sub>2</sub>, the adoption of the National Programme against Climate Changes (PNLCC) in January 2000, has been reinforced in 2004 and 2006. These programs are part of the 2005 energy law.

## Industry

The most challenging operation in industry was the implementation of the CO<sub>2</sub> National allocation plan amounting to 150 MtCO<sub>2</sub>. In 2006, ADEME has implemented 511 audits. Since 2000, 4233 energy audits have been carried out. These audits resulted in 90 ktoe/year of energy savings (88 ktCO<sub>2</sub>/year).

To accelerate the penetration of new technologies or process into the market, 248 demonstration or pilot projects have been launched from 2000 to 2006.

## Households, Services

The thermal building code was reinforced as of July 2005 for both households and the service sectors. This should bring on average energy savings of 15%, compared to 2000 standards. For the existing stock, the tax credit scheme, which was very successful, has been reinforced in 2005 and can reach 50%. In 2006, 6456 buildings have been audited for a total of 49 000 buildings since 2000. This measure is completed by demonstration projects and by OPATB program (energy efficiency of residential and tertiary building). The total subsidies dedicated to these measures reached 19 M Euros in 2006.

The implementation of local energy information centres has been reinforced: 187 centres, 340 advisers. These councils resulted in 317ktoe/year and 592ktCO<sub>2</sub>/year between 2004 and 2006.

Three newly implemented important and innovative measures have been launched in 2006 and 2007: a compulsory energy

efficiency label scheme for building (November 2006); the innovative "White certificate scheme" accounting for 54 TWh cumulated savings" (since July 2006) and a CO<sub>2</sub> oriented financial/banking product for household with an expected leverage of 1 billion euro (starting January 2007).

Since 2006-2007, the energy performance audit of the household or a building was a legal obligation for the sale, for the hiring and for construction.

## Transport

There is a large subsidies scheme towards clean fuels technologies (electric vehicles, LPG fuelled vehicle and clean buses). For passengers transport, there are measures to organise mobility plan for employees in some companies (7 agreements signed). For the transport of goods, the main area is the support to rail/road-combined transport. In addition, several audits of company fleet have been performed. However two new measures have been recently implemented the compulsory energy and CO<sub>2</sub>, car labelling scheme and an ecological bonus since the first January 2008. In six month, the average of CO<sub>2</sub> emissions of the new cars decreased by 149 to 140gCO<sub>2</sub>/km.

## Energy prices and taxes

There is no environment or CO<sub>2</sub> tax in France. However in all consuming sectors, the energy prices at the consumer level have raised again.

## Budgets

The budget of ADEME allocated for energy efficiency and renewable has increased by a factor 6 from 1998 to 2003, reaching 90 M Euros. This budget again has continued to grow and represents more than 100 M Euros in 2005.

**Between 2000 and 2006, 125 M Euros were allocated to transport, 200 M Euros for energy efficiency and 429 M Euros for renewable energy.**

## Selected Energy Efficiency Measures

Sectors	Title of Measure	Since	Evaluation impacts
Households	Building insulation standards of 2005 : RT 2005	2005	15% of energy savings compared to 2000
Households	Tax credit for energy efficiency works and RES	1978	1 billion Euro in 2005, up to 50% aid
Households	Energy performance audits	2006	
Households, tertiary	Audits subsidies in buildings	1980	1.94 tCo <sub>2</sub> saved per audited building
Transport	Grants for electric and natural gas vehicles	1985	CO <sub>2</sub> savings : 13 tCo <sub>2</sub> for electric vehicles; 63 ktCo <sub>2</sub> for LPG vehicles
Transport	Car labelling	2006	
Transport	Ecological Bonus	2008	In six month, the average of CO <sub>2</sub> emissions of the new cars decreased by 149 to 140gCO <sub>2</sub> /km.
Industry	Quota Allocation plan	2002	
Industry	Energy audits and subsidies	1999	16.5 tCo <sub>2</sub> saved per company
Tertiary	"High environmental quality" in buildings (HQE)	2001	
All	White certificate scheme	2006	Excluding energy intensive industries, 54 TWh cumulated
All	Local energy information centres	1990	187 centres; 1000 000 contacts between 2004 and 2006; 317 ktoe/year and 592 ktCO <sub>2</sub> /year

