



Energy Efficiency Profile : Austria

October 2008

Energy Efficiency Trends

Overview

The energy efficiency index for the whole economy (ODEX) in Austria improved by 24% between 1990 and 2006. In the period since 1997 the index for Austria improved by 14% vs. 11 % for the EU. Most of the efficiency improvements were achieved in the manufacturing sector, but also transport and households have contributed to this significant improvement in energy efficiency and show an increase above the EU average.

Industry

Energy efficiency in industry (measured at the level of 8 branches) improved by 18 % over the period 1990 to 2006. Among the branches involved, the main improvements were obtained in the transport vehicles, machinery and non ferrous industry. Some branches have poor performances like textiles and food which record negative results. The changes of some branches between 1995 and 1997 is partially due to changes in data collection methods in the same period.

Households

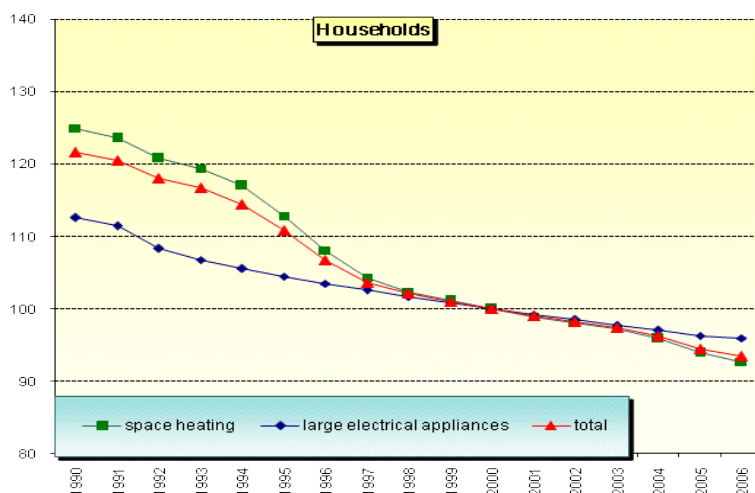
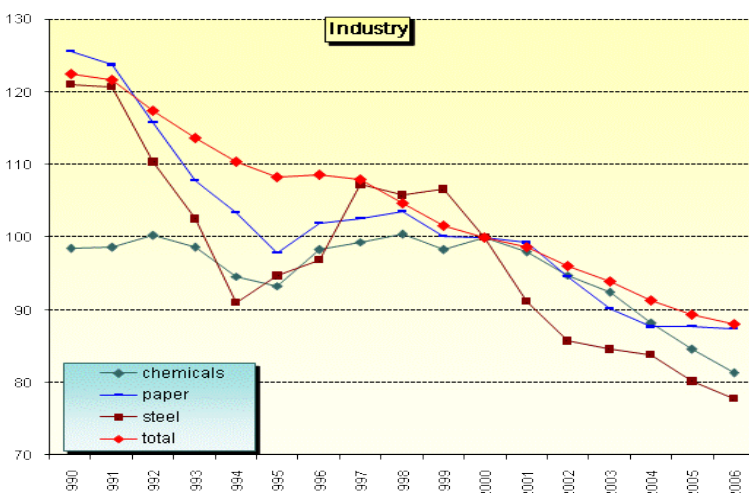
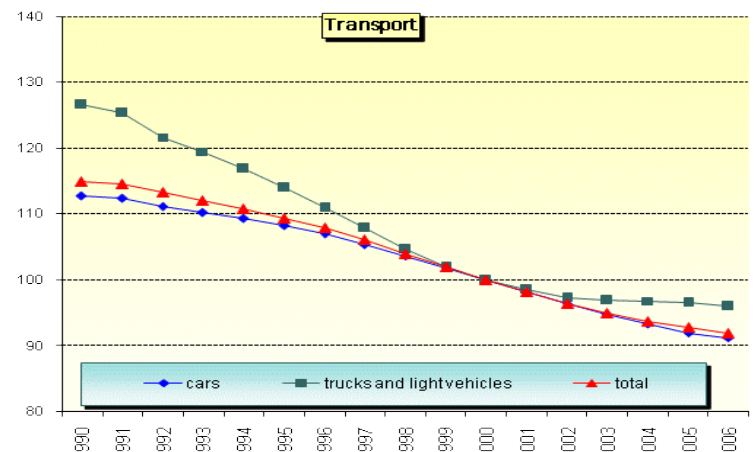
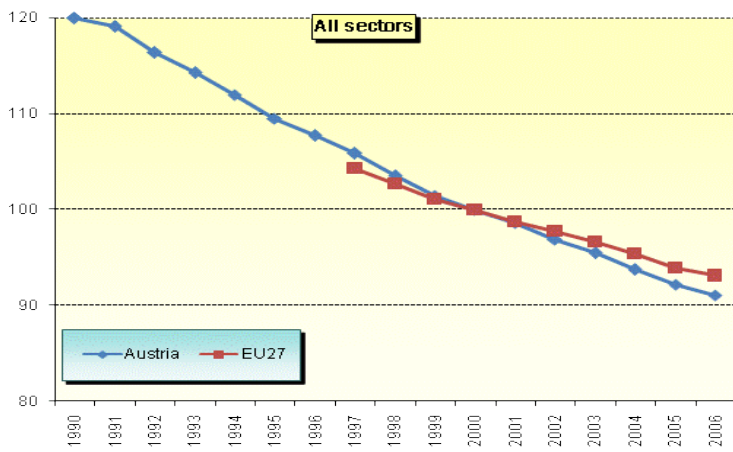
During the period 1990-2006 overall household energy efficiency (calculated for eight different end-uses) improved by 23 %.

Most of the improvement was realised in the first half of this period (15 % reduction until 1997). The index is dominated by space heating which is by far the most important end-use being responsible for 80 % of the index. For space heating the improvement was 26 %. This is mainly explained by the increasing share of heat insulated dwellings which outweighs the effect of more single family homes, larger floor areas, higher heating temperatures and longer heating periods. Energy efficiency of large appliances increased steadily (15 % reduction). While efficiency of cooking increased over the whole period by 31 %, efficiency of water heating increased by not more than 5 %.

Transport

Transport energy efficiency has improved steadily over the period 1990-2006 by 20 %. This development is mainly caused by efficiency improvements in car transport (19 % reduction) which dominates the transport sector. The bulk of the improvements is attributable to the penetration of new, more efficient cars. Energy efficiency of air transport improved by 18 % and efficiency of trucks by 24 % while rail transport shows a increase of efficiency by 26 %.

Energy efficiency index (base 100=2000)



Energy Efficiency Policy Measures

Institutions and programmes

In spring 2003, the Austrian government has decided to start the implementation of the **Climate Action Plan** and a Joint Implementation programme. "**klima:aktiv**", the **national programme for climate protection** runs since January 2005. It's a long-term programme and it's aim is to widely introduce energy efficient and climate-friendly technologies and services in the fields of construction and living, mobility, company policies, electricity saving and renewable energy sources. The programme contains 24 thematic sub-programmes. According to the importance of heat and power plants in Austria CHP is considered in the "**Eco Electricity Act 2002**". The law concedes power from CHP plants higher prices than those of other generation options.

Industry

Improvements in industrial energy efficiency are triggered by a targeted **energy efficiency programme**, consisting of the elements Benchmarking, Best Practice and Energy audits. Besides the usual measures on the **demand side** (buildings envelope, process heat and steam recovery, motors/drives, lighting ...) there is a focus on the **supply side** (e.g. industrial CHP, substitution of fossil fuels, fuel switch etc.). Energy intensive industry is involved in the European **emissions trading scheme**. This scheme is seen as major instrument to trigger further energy efficiency improvements (and CO₂ reductions) within the energy intensive industry. Furthermore in 2005 the klima:aktiv programme "**Energy efficient SMEs**" started and targets to show energy saving potentials by consulting and specified marketing.

Households, Services

There are many programmes in Austria which aim to improve energy efficiency by granting **subsidies** for suitable measures. As it is the case with housing subsidies also the **building regu-**

lations lie within the Austrian provinces authority. Energy related regulations for **existing buildings** within the building codes are existing with respect to the renewing of construction, to building extensions and to the modernisation or replacement of the heating system. There exist several **renovation programmes** and initiatives on the level of the Austrian provinces.

Transport

Taxes on fuels and on the purchase of vehicles as well as road pricing are the main factors to influence the **financial framework** for motorised transport. The road pricing for trucks was introduced in the beginning of 2004, taxes on diesel and gasoline have been increased in 2007 and the purchase tax on cars has further been ecologized in 2008. The main focus within a **technical framework** lies on the implementation of the European standards for emission standards, the use of biofuels ("Biofuel Directive") and the energy efficiency information for cars (Consumer information Directive). The **Climate Action Plan** suggests a bundle of 14 measures at national level as well as 11 measures on the level of Länder and municipalities and "klima:aktiv", the national programme for climate protection contains seven sub-programmes in the field of transport. They mainly aim at introducing **mobility management** in e.g. schools, companies or administration departments and a nation-wide initiative to force a fuel-saving driving style.

Energy prices and taxes

Additionally to the traditional mineral oil tax, specific taxes on electricity and natural gas have been introduced in the nineties. The purchase tax on cars depends on the fuel consumption. From 1. July 2008 this tax system has been improved by a bonus-malus system. Vehicles with a CO₂ emission more than 180 g/km have to pay an additional tax of 25 Euro per exceeded gram. If the car exhausts less than 120 g/km, a bonus of 300 Euro will be paid out. Furthermore a bonus of 500 Euro is due when the vehicle has an alternative propulsion system (hybrid, gas, ethanol etc.).

Selected Energy Efficiency Measures

Sectors	Title of Measure	Since
Households	Housing support scheme - refurbishment of buildings	1989
Households	Grants for Renovation concerning Energy Conservation	1989
Households	Grants for renewable energy (thermal solar, heat pumps, biomass heating,...)	
Households	Domestic appliances labeling and efficiency standards	1993
Transport	Eco Driving Initiative and competition	2004
Transport	Tax Depending on Motor Vehicle's Fuel Consumption (NoVA), and Vehicle Tax (ecologized in 2008)	1992 (2008)
Transport	Toll on Motorways and Expressways (Road Pricing and Toll by Vignette [sticker])	1996
Industry	Emission Trading Scheme	2005
Tertiary	Energy saving programme for federal buildings ("Energiesparoffensive für Bundesgebäude")	2001
General/Cross-Cutting Measure	National programme for climate protection ("klima:aktiv")	2005

Source: MURE data base

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