Swiss Federal Office of Energy 10 January 2001

Ecologically motivated energy taxes in Europe

Summary:
1. **Classical and ecologically motivated energy taxes**
2. **Taxes in different countries, existing or planned**
3. **For additional information**

1. Classical and ecologically motivated energy taxes

The taxation of energy varies from one country to another. Primary energy sources have long been subject to **fiscal levies** such as the tax on mineral oils and value added tax. These fiscal taxes are common to most states.

New **taxes,** the motivation for which is **ecological** in nature, have only recently made their appearance in different countries. These include energy-related incentive taxes, and taxes on CO_2, as well as on sulphur and nitrogen, to prevent pollution by hydrocarbons. Several countries are planning to introduce such taxes in the near future, or to increase those that already exist. More severe taxation of energy consumption should make it possible to limit and control damage to the environment and to the climate. The proceeds of the new taxes would essentially be used to reduce social insurance contributions and other forms of taxation. Renewable sources of energy will be exempt from the taxes, and indeed are to be given even more encouragement.

Energy-intensive sectors of the economy whose competitiveness would suffer if they had to pay the taxes have been exempted in all countries, in one way or another. The different forms taken by all the special rules and exceptions are too numerous and varied to be described here.

Most countries are already planning **to fine-tune these taxes**. In Norway for example the CO_2 tax is to be extended to all sectors, including shipping and civil aviation. Denmark, Italy, France and Germany wish to gradually increase their energy taxes. In Germany for example the tax on motor fuels is to increase by five pfennig a litre each year until 2003. Belgium and the United Kingdom are planning **new taxes**. The UK is to introduce a CO_2 tax in 2001 which will apply to the energy consumption of industry. The entire proceeds will be reimbursed through the social security system.

2. Taxes in different countries, existing or planned

Country	Taxes	Utilisation of proceeds					Observations
		State coffers	Social security	Other taxes	Encouragement	Miscellaneous	
Denmark	Energy tax, taxes on CO_2, on NO_x and sulphur	x	x	x	x		Revenues: about 2.3% of gross domestic product (GDP)
Germany	Tax on mineral oils, measures to ensure security of energy supplies and ecological tax	x	x				Reduced social security contributions: 1999 - 0.8%; 2003 – 1.8%. Annual increase until 2003: 5 pf./l (motor fuels) and 0.4 pf./kWh (electricity)
France	Energy taxes and tax on emissions	x		x			Financing a reduction in the working week to 35 hours
United Kingdom	Taxes on motor fuels and (from 2001) on CO_2	x	x		x		Tax on motor fuels increases by 6% p.a.
Sweden	Energy tax, taxes on CO_2, on NO_x and sulphur	x		x		x	Revenues: almost 3% of GDP
Finland	Energy tax, taxes on CO_2, against hydrocarbon pollution and for an emergency reserve	x			x	x	
Norway	Energy tax, taxes on CO_2 and sulphur	x	x	x			Total revenues reviewed each year (parliament)
Netherlands	Tax on mineral oils, energy tax and tax on CO_2	x	x	x			Revenues: about 2.9% of GDP
Belgium	Tax on mineral oils and energy tax	x					Introduction of CO_2 tax planned
Italy	Tax on mineral oils, energy tax, taxes on CO_2, NO_x and sulphur	x	x		x	x	Relatively high taxation
Austria	Tax on mineral oils, on energy and for the prevention of risks	x				x	Trend uncertain (new government)
Switzerland	Tax on mineral oils, tax on sulphur, hydropower taxes Energy taxes (max. 2 ct./kWh)	X	 X			X	Possible introduction of CO_2 tax as of 2004 Relatively low taxation

Denmark has an energy tax as well as taxes on CO_2, NO_x and sulphur. Prices are high compared to other countries. Thanks to subsidies and reduced social security contributions, industry is not really penalised. Experience shows that energy consumption has been falling, and there have been increases in both the export of environmental technologies and the number of domestic combined heat and power installations.

The process of "ecological fiscal reform" is continuing in **Germany** where it was introduced in April 1999. Each year until 2003 taxes are increased at a rate of five pfennig per kWh for motor fuels, and DM 0.04/kWh for electricity. The proceeds of the energy tax will be used to reduce social security contributions. Energy-intensive industries benefit from preferential tax rates. A cap has been set on the maximum rate.

France has lumped a number of ecological taxes together into a single tax, the so-called "general tax on polluting activities", and has also increased existing taxes. Energy taxes are due to be increased in the current year to finance a reduction in the working week to 35 hours. An energy tax for major consumers is under discussion.

The tax on motor fuels is very high in the **United Kingdom** compared to other countries, and is increasing at a rate of 6 per cent a year. The value added tax (VAT) on heating fuels for private use on the other hand is only a third of the rate elsewhere. A tax on CO_2 is to be introduced in the industrial sector in 2001. The proceeds are to be entirely reimbursed through the social security system. Companies that manage to improve their efficiency in the use of energy will benefit from reductions.

Sweden imposes an energy tax as well as taxes on CO_2, sulphur and NO_x. While the former is fiscal in nature, the other taxes are measures for the implementation of environmental protection policy. These taxes, which are relatively high compared to those of other countries, have helped to reduce CO_2 emissions by between 2-3 per cent. In absolute terms however emissions continue to increase. The production of sulphur and nitrogen on the other hand have fallen considerably.

Finland taxes emissions of CO_2 and it also taxes electricity separately. Petroleum products too are subject to the "tax against pollution by hydrocarbons". The increase is considerable in the case of motor fuels, but moderate for other petroleum products. When the system was introduced in 1997 a corresponding reduction was made in the rate of income tax so that total revenues would remain the same. Companies in energy-intensive sectors benefit from reduced rates.

Norway also has an energy tax as well as taxes on CO_2 and sulphur. Most of the revenues go to the state budget, while part of them help reduce wage contributions and income tax. Each year parliament reviews the total amount collected and adapts it to the conditions of the moment. The highest taxes are paid for petroleum products, whereas electricity is taxed lightly.

In addition to its tax on mineral oils, the **Netherlands** has a combined energy and CO_2 tax, as well as an energy tax on "small consumers". Whereas the latter is fully reimbursed to companies and households, the former two end up in the state coffers. The positive effects on the environment are considerable, although there are special rules for major consumers and the taxation rates are low, except in the case of mineral oils.

In **Belgium** as well as a tax on mineral oils there is an energy tax. Compared to other countries the rates are low, and the proceeds all go to the state coffers. The new government, in office since mid-1999, has announced that a new energy and CO_2 tax is planned.

Italy taxes primary energy sources at high rates. The average energy consumption is relatively low thanks to the mildness of the Mediterranean climate and the modest size of most vehicles. As well as a tax on mineral oils there are taxes on energy, CO_2, sulphur and NO_x. The proceeds are divided between the central government, the social security system, interregional equalisation and environmental measures.

Two forms of ecological tax were prepared in **Austria** in 1998. However the change of government which took place at the beginning of 2000 makes their introduction doubtful. Current taxes include a fiscal tax on mineral oils and on energy, and a "risk prevention" tax.

3. For additional information

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