13 Energy

A competitive, reliable and sustainable energy sector is essential for an economy, and this has been put under the spotlight in recent years by a number of issues, including the volatility in oil prices, interruptions to energy supply from non-member countries, blackouts aggravated by inefficient connections between national electricity networks, the difficulties of market access for suppliers in relation to gas and electricity markets, and increased attention to climate change. These issues have pushed energy towards the top of national and European political agendas.

The use of renewable energy sources is seen as a key element in energy policy, reducing the dependence on fuel from non-member countries, reducing emissions from carbon sources, and decoupling energy costs from oil prices. The second key element is constraining demand, by promoting energy efficiency both within the energy sector itself and at end-use.

In January 2007 the European Commission adopted a communication (COM(2007) 1) proposing an energy policy for Europe [1], with the goal to combat climate change and boost the EU's energy security and competitiveness. This set out the need for the EU to draw up a new energy path towards a more secure, sustainable and low-carbon economy, for the benefit of all users. Based on the European Commission's proposal, in March 2007 the Council endorsed the following targets:

- reducing greenhouse gas emissions by at least 20 % (compared with 1990 levels) by 2020;
- improving energy efficiency by 20 % by 2020;
- raising the share of renewable energy to 20 % by 2020;
- increasing the level of renewables (such as biofuels) in transport fuel to 10 % by 2020.

(1) http://ec.europa.eu/energy/energy_policy/index_en.htm.

13.1 Energy production and imports

In a Communication in November 2007, the European Commission put forward a strategic energy technology plan (SET-plan) 'Towards a low carbon future' (2). This aims to support decarbonised energy technologies, such as off-shore wind, solar technology, or second generation biomass, by accelerating their development and implementation. In January 2008 the European Commission proposed a package of measures (3) related to energy and the climate, to supplement the existing measures for achieving the agreed targets. The European Council, on 11 and 12 December 2008 (4), reached an agreement on the energy/climate change package which should enable this package to be finalised with the European Parliament by the end of 2008. This decisive breakthrough will enable the EU to honour commitments entered into during 2007 and to maintain its leading role in the search for an ambitious and comprehensive global agreement at Copenhagen in 2009.

In order to meet the increasing requirements of policy-makers for energy monitoring, Eurostat has developed a coherent and harmonised system of energy statistics. Annual data collection covers the 27 Member States of the EU, the candidate countries of Croatia and Turkey, and the European Free Trade Association countries of Iceland, Norway and Switzerland; time-series run back to 1985 for some countries, but are more generally available from 1990. Although not presented in this yearbook, monthly data are also available.

Introduction

Energy commodities extracted or captured directly from natural resources are called primary energy sources. All energy commodities which are produced from primary sources in transformation plants are called derived products. Primary energy production covers the national production of primary energy sources. Whenever consumption exceeds primary production the shortfall is accounted for by imports of primary or derived products. The dependency of the EU on imports, particularly for oil and more recently for gas, has formed the backdrop for policy concerns relating to the security of supply.

Definitions and data availability

Any kind of extraction of energy products from natural sources to a usable form is called **primary production**. Primary production takes place when the natural sources are exploited, for example, in coal mines, crude oil fields, hydro power plants or fabrication of biofuels. It is the sum of energy extraction, heat produced in reactors as a result of nuclear fission, and the use of renewable energy sources. Transformation of energy from one form to another, like electricity or heat generation in thermal power plants or coke production in coke ovens is not primary production.

(2) http://ec.europa.eu/energy/res/setplan/index_en.htm.

(3) http://ec.europa.eu/commission_barroso/president/focus/energy-package-2008/index_en.htm.

(4) http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/104692.pdf.

The heat produced in a reactor as a result of nuclear fission is regarded as **primary production of nuclear heat**, or in other words nuclear energy. It is either the actual heat produced or calculated on the basis of reported gross electricity generation and the thermal efficiency of the nuclear plant. **Primary production of coal and lignite** consists of quantities of fuels extracted or produced, calculated after any operation for removal of inert matter. **Primary production of biomass, hydropower, geothermal energy, wind and solar energy** are included in **renewable energies:**

- biomass (heat content of the produced biofuels or biogas; heat produced after combustion during incineration of renewable wastes);
- hydropower covers potential and kinetic energy of water converted into electricity in hydroelectric plants (the electricity generated in pumped storage plants is not included);
- geothermal energy comprises energy available as heat emitted from within the earth's crust, usually in the form of hot water or steam;
- wind energy covers the kinetic energy of wind converted into electricity in wind turbines;
- solar energy covers the solar radiation exploited for solar heat (hot water) and electricity production.

Net imports are simply calculated as the quantity of imports minus the equivalent quantity of exports. Imports represent all entries into the national territory excluding transit quantities (notably via gas and oil pipelines); electrical energy is an exception and its transit is always recorded under foreign trade. Exports similarly cover all quantities exported from the national territory.

The **energy dependency rate** is defined as net imports divided by gross consumption, expressed as a percentage; gross consumption is equal to gross inland consumption plus the energy (oil) supplied to international marine bunkers.

Gross inland consumption covers consumption by the energy branch itself, distribution and transformation losses, and final non-energy and energy consumption. A negative dependency rate indicates a net exporter of energy. A dependency rate in excess of 100 % indicates that energy products have been stocked. Gross inland consumption is calculated as follows: primary production + recovered products + net imports + variations of stocks – bunkers. It corresponds to the addition of consumption, distribution losses, transformation losses and statistical differences.

Main findings

Production of primary energy in the EU-27 totalled 871 million tonnes of oil equivalent (toe) in 2006. Production was dominated by the United Kingdom with a 21 % share of the EU-27 total, while France and Germany were the only other Member States to report production in excess of 100 million toe.

Primary energy production in the EU-27 in 2006 was concentrated among nuclear energy, solid fuels (mainly coal) and natural gas. However, the pace at which the primary production of renewable energy was growing exceeded that of all the other energy types, with particularly strong growth since 2002. The production of coal and lignite, crude oil, and natural gas fell in recent years: crude oil output peaked in 1999, and natural gas two years later. As a result of these different

developments, the production of primary energy from renewable sources in 2006 exceeded that from oil for the first time in the available time-series.

Among renewable energies, the most important source was biomass and waste, representing over 87 million toe of primary production in the EU-27 in 2006. Hydropower was the only other significant contributor to the renewable energy mix (27 million toe). Although production still remains small, there has been a particularly rapid expansion in the production of wind energy, reaching 7 million toe in the EU-27 in 2006.

The EU-27's imports of primary energy exceeded exports by some 1 010 million toe in 2006. The largest net importers of primary energy were usually the largest Member States, with the exception of the United Kingdom and Poland (both of whom have significant primary production, mainly oil, natural gas or coal). Since 2004 the only net exporter among the Member States has been Denmark.

The sources of EU energy imports have changed rapidly in recent years. In 2006 the EU-27's imports of crude oil from Russia were more than double those from Norway, whereas in 2000 Norway's and Russia's deliveries to the EU-27 had been practically the same. For natural gas the same two countries were also the biggest suppliers to the EU-27 market in 2006: although Russia's contribution to EU imports of natural gas has declined in recent years in percentage terms, in 2006 it still supplied two fifths of the total.

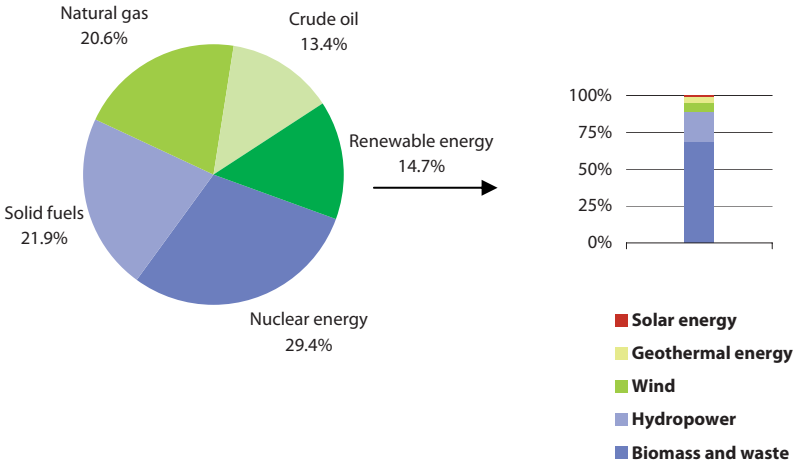
Since 2004 the EU-27's net imports of energy have been greater than its primary production of energy, witnessed by its dependency rate exceeding 50 % (meaning that more than half of gross inland consumption was supplied by net imports rather than primary production). In 2005 the dependency rate increased to reach 52.6 % and in 2006 it increased further to 53.8 %. Energy dependency ratios were highest for crude oil and petroleum products (83 %), although the dependency on non-member countries for supplies of solid fuels and natural gas grew at a faster pace in the last decade than the EU's dependency on oil (which was already at a high rate). As it was a net exporter, Denmark was the only Member State in 2006 with a negative dependency rate. Among the other Member States the lowest dependency rates were recorded by Poland and the United Kingdom, while Cyprus, Malta and Luxembourg were all almost entirely dependent on imports.

Table 13.1: Total production of primary energy
(million tonnes of oil equivalent)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Share in EU-27, 2006 (%)
EU-27	971.4	962.5	940.5	942.8	933.0	933.0	933.2	927.2	923.1	891.4	871.2	100.0
Euro area	459.4	448.6	435.0	436.5	434.9	440.1	442.9	446.1	458.6	448.9	451.7	51.8
Belgium	11.3	12.6	12.0	13.3	13.1	12.7	12.9	13.1	13.2	13.5	13.4	1.5
Bulgaria	10.6	9.8	10.2	9.0	9.8	10.3	10.5	10.1	10.2	10.6	10.9	1.3
Czech Republic	32.2	32.3	30.5	27.7	29.6	30.2	30.4	34.1	32.8	32.4	33.1	3.8
Denmark	17.7	20.2	20.3	23.7	27.7	27.1	28.5	28.4	31.0	31.3	29.5	3.4
Germany	138.8	138.5	131.7	134.6	132.1	133.1	133.9	135.2	137.0	135.7	136.9	15.7
Estonia	3.7	3.6	3.2	3.0	3.2	3.4	3.7	4.2	4.0	4.2	3.9	0.4
Ireland	3.5	2.8	2.4	2.5	2.2	1.8	1.5	1.8	1.8	1.6	1.6	0.2
Greece	10.1	9.9	10.0	9.4	9.9	9.9	10.5	9.9	10.3	10.3	10.1	1.2
Spain	32.0	30.7	32.0	30.3	31.2	32.9	31.6	32.8	32.4	30.1	31.2	3.6
France	131.0	128.1	125.1	127.2	131.1	131.7	133.4	134.8	135.7	135.5	135.6	15.6
Italy	30.1	30.3	30.1	29.0	26.8	25.7	26.3	27.3	28.1	27.7	27.1	3.1
Cyprus	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Latvia	1.4	1.6	1.8	1.6	1.4	1.5	1.6	1.7	1.8	1.9	1.8	0.2
Lithuania	4.3	3.9	4.4	3.5	3.2	4.1	4.8	5.1	5.0	3.7	3.2	0.4
Luxembourg	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Hungary	13.1	12.8	11.9	11.5	11.2	10.8	11.1	10.7	10.2	10.4	10.3	1.2
Malta	-	-	-	-	-	-	-	-	-	-	-	-
Netherlands	74.0	65.7	62.9	59.4	57.2	60.9	60.4	58.4	67.7	61.9	60.8	7.0
Austria	8.4	8.5	8.7	9.4	9.6	9.6	9.7	9.5	9.7	9.3	9.6	1.1
Poland	97.8	99.1	86.8	82.8	78.4	79.4	79.1	78.7	78.0	77.7	76.8	8.8
Portugal	3.8	3.8	3.7	3.4	3.8	3.9	3.6	4.3	3.9	3.6	4.3	0.5
Romania	33.0	31.6	29.2	28.1	28.7	27.6	28.0	28.3	28.4	27.5	27.4	3.1
Slovenia	3.0	3.0	3.0	2.9	3.1	3.1	3.4	3.2	3.4	3.5	3.4	0.4
Slovakia	4.7	4.6	4.7	5.2	6.0	6.4	6.5	6.3	6.2	6.3	6.3	0.7
Finland	13.4	14.8	13.1	15.2	14.7	14.7	15.6	15.5	15.4	16.2	17.8	2.0
Sweden	31.5	32.0	33.0	32.7	30.0	33.3	31.2	30.4	33.8	34.2	32.3	3.7
United Kingdom	261.9	262.3	269.5	277.6	269.1	258.7	254.9	243.2	223.2	202.5	183.9	21.1
Croatia	4.2	4.1	4.0	3.6	3.6	3.7	3.7	3.7	3.9	3.8	4.1	-
Turkey	27.2	28.0	29.1	27.5	26.8	25.2	24.6	23.9	24.2	23.6	26.5	-
Iceland	1.6	1.7	1.8	2.2	2.3	2.5	2.5	2.5	2.5	2.6	3.3	-
Norway	208.1	212.7	206.6	209.6	225.0	228.9	233.6	236.0	238.5	234.0	223.7	-
Switzerland	10.0	10.5	10.6	11.2	11.1	11.7	11.2	11.4	11.4	10.5	11.8	-

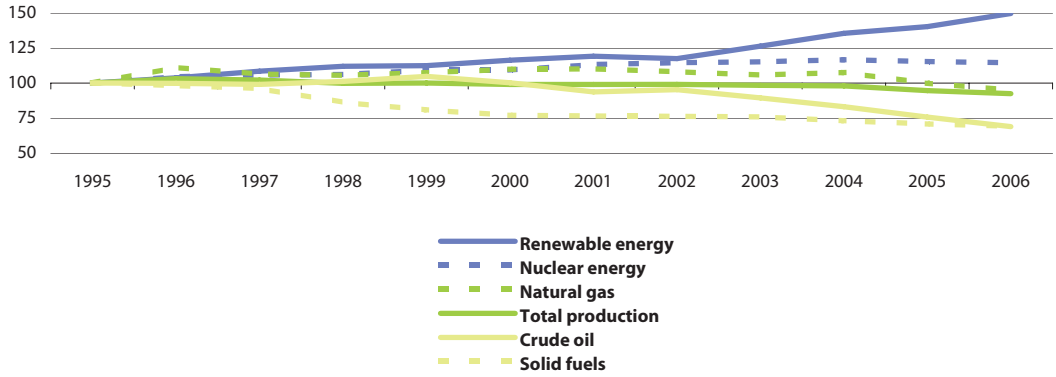
Source: Eurostat (ten00076)

Figure 13.1: Production of primary energy, EU-27, 2006
(% of total, based on tonnes of oil equivalent)



Source: Eurostat (ten00080, ten00077, ten00079, ten00078, ten00081, ten00082 and ten00076)

Figure 13.2: Development of the production of primary energy (by fuel type), EU-27
(1995=100, based on tonnes of oil equivalent)



Source: Eurostat (ten00081, ten00080, ten00079, ten00076, ten00078 and ten00077)

Table 13.2: Net imports of primary energy
(million tonnes of oil equivalent)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Share in EU-27, 2006 (%)
EU-27	774.0	784.7	813.9	790.8	826.3	857.5	*858.2*	*904.5*	*941.0*	*986.2*	*1 010.1*	100.0
Euro area	698.8	716.4	752.2	752.7	783.2	792.6	*800.5*	*822.7*	*834.5*	*854.4*	*855.2*	*84.7*
Belgium	49.4	49.3	52.1	49.2	50.8	51.3	49.3	53.2	53.9	53.8	53.5	5.3
Bulgaria	13.2	10.8	10.1	8.9	8.7	9.0	8.9	9.3	9.2	9.5	9.5	0.9
Czech Republic	10.6	10.6	10.6	9.8	9.4	10.7	11.4	11.4	11.7	12.9	12.9	1.3
Denmark	5.5	3.9	1.3	-3.4	-7.3	-5.8	-8.6	-6.9	-9.9	-10.4	-8.1	-0.8
Germany	208.8	209.4	214.0	203.7	205.7	216.7	209.3	213.0	215.5	215.3	215.5	21.3
Estonia	2.0	1.9	2.0	1.9	1.6	1.7	1.5	1.5	1.7	1.5	1.9	0.2
Ireland	8.4	9.5	10.7	11.7	12.3	13.7	13.7	13.6	13.9	13.7	14.2	1.4
Greece	18.9	19.3	21.2	19.8	22.1	22.4	23.3	22.6	24.7	23.4	24.9	2.5
Spain	74.3	80.8	88.4	95.3	99.3	99.8	108.0	109.1	115.3	124.0	123.8	12.3
France	125.0	122.8	132.4	132.8	134.2	136.8	137.5	138.9	141.5	144.3	141.7	14.0
Italy	134.8	134.9	140.7	144.2	153.4	148.3	153.4	156.4	159.5	161.0	164.6	16.3
Cyprus	2.2	2.1	2.2	2.4	2.5	2.5	2.6	2.7	2.4	2.8	3.0	0.3
Latvia	3.5	2.7	2.6	2.2	2.2	2.5	2.5	2.8	3.2	3.0	3.2	0.3
Lithuania	5.1	5.1	4.8	4.4	4.3	3.9	3.7	4.1	4.4	5.1	5.5	0.5
Luxembourg	3.4	3.3	3.3	3.4	3.6	3.7	4.0	4.2	4.5	4.6	4.7	0.5
Hungary	13.9	13.6	14.4	13.9	14.0	13.9	14.8	16.4	16.1	17.5	17.3	1.7
Malta	0.9	1.0	0.9	1.0	0.8	0.7	0.9	0.9	0.9	1.0	0.9	0.1
Netherlands	14.8	23.7	24.5	26.9	35.4	32.6	32.5	36.7	31.4	38.4	37.2	3.7
Austria	20.1	19.4	20.5	19.2	19.1	20.0	21.2	23.1	23.5	24.7	24.9	2.5
Poland	5.6	6.6	8.2	9.7	10.3	9.5	10.2	12.1	13.5	16.9	19.6	1.9
Portugal	16.9	18.6	19.6	22.3	21.9	21.8	22.5	22.4	22.7	24.4	21.6	2.1
Romania	15.0	14.8	11.9	8.0	8.1	9.5	9.1	10.2	11.9	10.8	11.9	1.2
Slovenia	3.5	3.6	3.4	3.6	3.4	3.4	*3.5*	*3.7*	*3.7*	*3.8*	*3.8*	*0.4*
Slovakia	13.3	13.2	12.5	11.7	11.6	12.2	12.6	12.7	13.2	12.5	12.0	1.2
Finland	17.5	18.7	18.5	17.3	18.6	18.9	18.8	22.4	21.0	19.3	20.9	2.1
Sweden	21.3	19.8	19.9	18.2	19.3	19.3	19.9	22.8	20.4	20.2	19.8	2.0
United Kingdom	-33.4	-34.8	-36.6	-47.2	-39.2	-21.6	-28.2	-14.6	11.1	32.3	49.3	4.9
Croatia	3.2	3.7	4.0	4.4	4.2	4.2	5.0	5.0	5.1	5.3	4.9	-
Turkey	41.0	42.9	43.6	43.5	51.1	46.2	51.1	56.8	58.7	62.1	69.3	-
Iceland	0.9	0.9	0.9	1.0	1.0	0.9	1.0	0.9	1.1	1.1	1.1	-
Norway	-182.5	-187.4	-180.6	-182.0	-198.3	-203.3	-208.7	-207.1	-210.0	-200.6	-197.6	-
Switzerland	14.9	14.8	15.3	14.0	14.0	15.2	15.0	14.7	15.1	16.2	16.1	-

Source: Eurostat (ten00083)

Table 13.3: Main origin of primary energy imports, EU-27
(% of extra EU-27 imports)

	Crude oil						
	2000	2001	2002	2003	2004	2005	2006
Russia	20.3	24.8	29.0	30.9	32.8	32.4	32.9
Norway	21.0	19.6	19.3	19.2	18.9	16.8	15.5
Libya	8.2	7.9	7.3	8.3	8.7	8.7	9.3
Saudi Arabia	11.8	10.4	10.0	11.1	11.2	10.5	8.9
Iran	6.4	5.7	4.9	6.3	6.2	6.1	6.3
Kazakhstan	1.8	1.6	2.5	2.9	3.9	4.5	4.7
Nigeria	4.1	4.7	3.5	4.2	2.6	3.2	3.5
Iraq	5.7	3.7	3.0	1.5	2.2	2.1	2.9
Algeria	3.9	3.5	3.4	3.4	3.8	3.9	2.9
Azerbaijan	0.7	0.8	1.0	1.0	0.9	1.2	2.1
Venezuela	1.3	1.6	1.7	0.9	0.8	1.2	1.9
Others	15.0	15.5	14.4	10.2	8.1	9.4	9.2
	Natural gas						
	2000	2001	2002	2003	2004	2005	2006
Russia	49.6	48.8	46.1	46.1	44.5	41.8	40.4
Norway	21.7	23.6	26.3	25.4	25.2	22.5	23.3
Algeria	24.1	21.6	21.6	20.3	18.4	19.0	17.5
Nigeria	1.9	2.4	2.2	3.2	3.7	3.7	4.6
Libya	0.4	0.4	0.3	0.3	0.4	1.8	2.6
Egypt	0.0	0.0	0.0	0.0	0.0	1.7	2.6
Qatar	0.1	0.3	0.9	0.8	1.4	1.7	2.0
Trinidad and Tobago	0.4	0.3	0.2	0.0	0.0	0.3	1.3
Uzbekistan	0.4	0.3	0.0	0.3	0.2	0.5	1.0
Croatia	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Turkmenistan	0.0	0.0	0.0	0.1	0.1	0.7	0.3
Others	1.5	2.0	2.0	3.3	5.6	5.7	3.7

Source: Eurostat (nrg_123a and nrg_124a)

Table 13.4: Energy dependency rate, EU-27

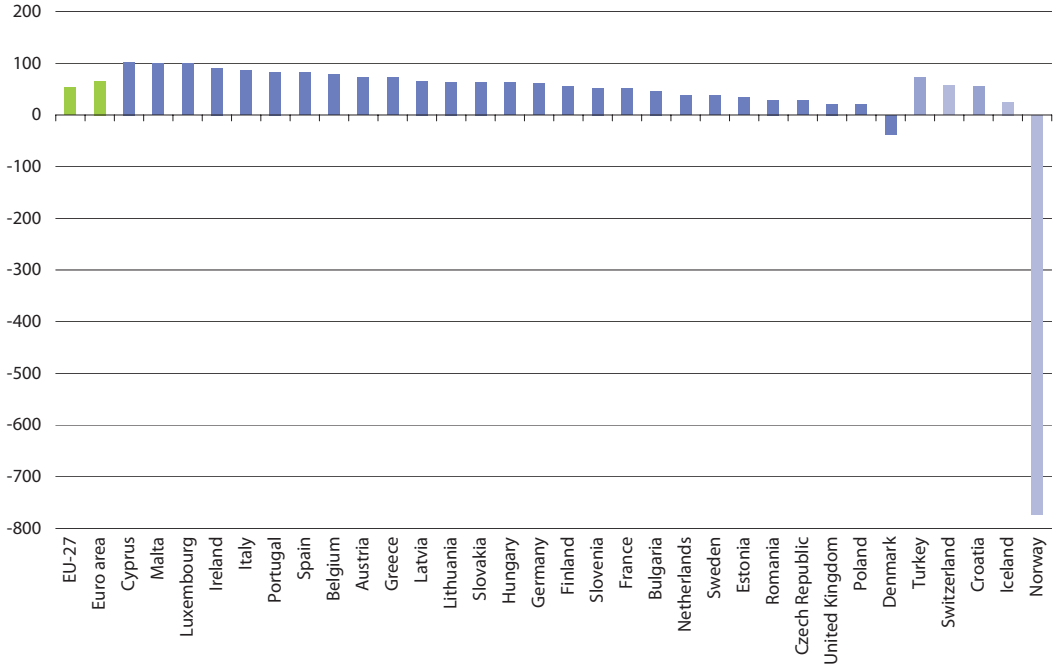
(% of net imports in gross inland consumption and bunkers, based on tonnes of oil equivalent)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
All products	44.1	45.0	46.1	45.2	46.8	*47.5*	*47.6*	*48.9*	*50.3*	*52.6*	*53.8*
Hard coal	31.8	34.8	36.3	38.4	42.7	47.2	47.3	49.0	53.8	55.8	58.5
Crude oil and petroleum	75.6	75.9	77.2	73.1	76.0	77.4	76.1	78.4	79.9	82.4	83.6
Natural gas	43.5	45.2	45.7	47.9	48.9	47.3	51.2	52.5	54.0	57.7	60.8

Source: Eurostat (nrg_100a, nrg_101a, nrg_102a and nrg_103a)

Figure 13.3: Energy dependency rate - all products, 2006 (1)

(% of net imports in gross inland consumption and bunkers, based on tonnes of oil equivalent)



(1) EU-27 and Slovenia, provisional.

Source: Eurostat (tsdcc310)

13.2 Electricity generation

Introduction

One of the reasons for the increased dependency rate for natural gas is the shift in fuels used for electricity generation: among the main sources for generation, natural gas has increased at the expense of coal, lignite and oil, probably as a result of lower emissions from gas. Over the same period there has been an increase in the use of renewables, particularly wind turbines, although their contribution remains relatively small.

The use of nuclear power for electricity generation has received renewed attention against a background of increasing dependency on imported primary energy, rising oil and gas prices, and commitments to reduce greenhouse gas emissions, balanced against long-standing concerns about safety and waste from nuclear power plants. Some Member States have recently started construction or have planned new nuclear reactors.

Renewable energy sources can have an important role to play in reducing CO_2 emissions. A sustainable energy policy is, in part, reliant upon increasing the share of renewable energy, which may at the same time help improve the security of energy supply by reducing the EU's growing dependence on imported energy sources. The European Parliament and Council set indicative targets in 2001 for the promotion of electricity from renewable energy sources, whereby 22 % of the EU-15's gross electricity consumption should be electricity produced from renewables by 2010; the target for the EU-25 is 21 %.

Definitions and data availability

Gross electricity generation at the plant level is defined as the electricity measured at the outlet of the main transformers, in other words, the consumption of electricity in plant auxiliaries and in transformers is included.

The indicator of **electricity from renewable energy sources** is the ratio between electricity produced from renewable energy sources and gross national electricity consumption. It measures the contribution of electricity produced from renewable energy sources to the national electricity consumption. Electricity produced from renewable energy sources comprises the electricity generation from hydropower plants (excluding pumping), wind, solar, geothermal and electricity from biomass/wastes.

The indicator on the **market share of the largest electricity generator** is based on net electricity production, and as such the electricity used by generators for their own consumption is not taken into account. The net production of each generator during the same year is considered in order to calculate the corresponding market shares. Only the largest market share is reported under this indicator.

Main findings

Total gross electricity generation in the EU-27 was 3.4 million GWh in 2006, of which close to 30 % came from nuclear power plants. Natural gas and coal-fired power stations each accounted for around one fifth of the total, and lignite-fired and oil-fired power stations 10 % and 4 % respectively. Among the renewable sources,

the largest share was from hydropower providing 10 % of the total, followed by biomass-fired power stations and wind turbines each generating between 2 % and 3 % of the total.

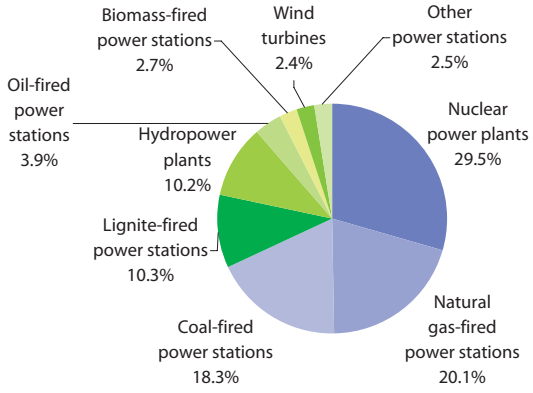
Germany and France were the principal electricity generators in the EU-27, with shares of 19 % and 17 % respectively, while the United Kingdom was the only other Member State to report a share above 10 %.

The EU-27 has recorded average growth of 1.7 % per annum in its level of electricity generation between 1996 and 2006. Luxembourg recorded an exceptional increase in electricity generation in 2002: this aside, the Member States with the largest increase in their respective levels of generation in the ten years to 2006 were Cyprus, Spain and Latvia. Lithuania and Denmark were the only Member States to record a lower level of generation in 2006 than in 1996.

Electricity generated from all renewable sources combined was equivalent to 14.5 % of gross national electricity consumption in the EU-27 in 2006. Several of the Member States had much higher ratios concerning the relative importance of renewables, in particular Austria (56.6 %), Sweden (48.2 %) and Latvia (37.7 %) which all generated large proportions of their electricity from hydropower, as well as (in some cases) from biomass. In contrast, the relatively high share of renewables in Denmark (25.9 %) was mainly due to wind power and to a lesser extent biomass.

One measure that can be used to monitor the success of liberalisation within electricity markets is the market share of the largest generator. The small island nations of Cyprus and Malta continued to report a complete monopoly, with 100 % of their electricity being generated by the largest generator, and three other Member States, namely Latvia, Greece and Estonia, also reported shares over 90 %. Ten of the 25 Member States for which data are available reported that the largest generator provided less than 50 % of the total, with the share below 25 % in Finland, the United Kingdom and Poland.

Figure 13.4: Electricity generation by fuel used in power stations, EU-27, 2006 (1)
(% of total, based on GWh)



(1) Figures do not sum to 100 % due to rounding.

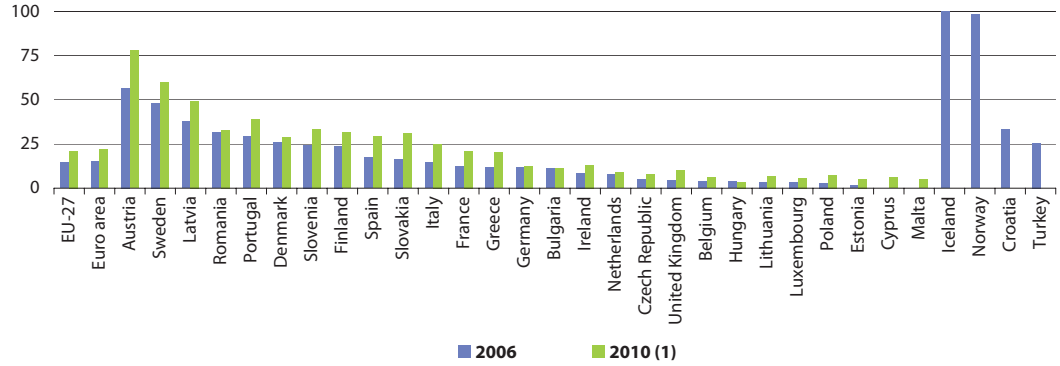
Source: Eurostat (nrg_105a)

Table 13.5: Total gross electricity generation
(1 000 GWh)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Share in EU-27, 2006 (%)
EU-27	2 830	2 841	2 910	2 940	3 021	3 108	3 117	3 216	3 288	3 309	3 358	100.0
Euro area	1 887	1 906	1 951	1 990	2 061	2 110	2 127	2 203	2 266	2 276	2 322	69.1
Belgium	76	79	83	85	84	80	82	85	85	87	86	2.5
Bulgaria	43	43	42	38	41	44	43	43	42	44	46	1.4
Czech Republic	64	65	65	65	73	75	76	83	84	83	84	2.5
Denmark	54	44	41	39	36	38	39	46	40	36	46	1.4
Germany	555	552	557	555	572	586	572	599	617	620	637	19.0
Estonia	9	9	9	8	9	8	9	10	10	10	10	0.3
Ireland	19	20	21	22	24	25	25	25	26	25	27	0.8
Greece	43	44	46	50	54	54	55	58	59	60	61	1.8
Spain	174	190	195	209	225	238	246	263	280	294	303	9.0
France	513	505	511	524	541	550	559	567	574	576	574	17.1
Italy	244	251	260	266	277	279	284	294	303	304	314	9.4
Cyprus	3	3	3	3	3	4	4	4	4	4	5	0.1
Latvia	3	5	6	4	4	4	4	4	5	5	5	0.1
Lithuania	17	15	18	14	11	15	18	19	19	15	12	0.4
Luxembourg	1	1	1	1	1	1	4	4	4	4	4	0.1
Hungary	35	35	37	38	35	36	36	34	34	36	36	1.1
Malta	2	2	2	2	2	2	2	2	2	2	2	0.1
Netherlands	85	87	91	87	90	94	96	97	101	100	98	2.9
Austria	55	57	57	61	62	62	62	60	64	66	64	1.9
Poland	143	143	143	142	145	146	144	152	154	157	162	4.8
Portugal	35	34	39	43	44	47	46	47	45	47	49	1.5
Romania	61	57	53	51	52	54	55	57	56	59	63	1.9
Slovenia	13	13	14	13	14	14	15	14	15	15	15	0.5
Slovakia	25	25	25	28	31	32	32	31	31	31	31	0.9
Finland	69	69	70	69	70	74	75	84	86	71	82	2.5
Sweden	141	149	158	155	146	162	147	135	152	158	143	4.3
United Kingdom	347	345	362	368	377	385	387	398	394	398	398	11.9
Croatia	11	10	11	12	11	12	12	13	13	12	12	-
Turkey	95	103	111	116	125	123	129	141	151	162	176	-
Iceland	5	6	6	7	8	8	8	9	9	9	10	-
Norway	105	112	117	123	143	122	131	107	111	138	122	-
Switzerland	57	63	63	70	68	72	67	67	66	60	64	-

Source: Eurostat (ten00087)

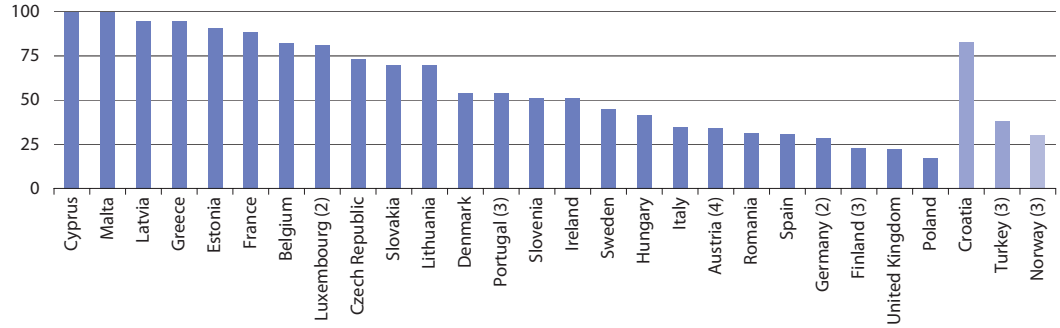
Figure 13.5: Proportion of electricity generated from renewable energy sources
(% of gross electricity consumption)



(1) Indicative targets for 2010 are not available for Croatia, Turkey, Iceland and Norway.

Source: Eurostat (tsien050)

Figure 13.6: Market share of the largest generator in the electricity market, 2006 (1)
(% of total generation)



(1) Bulgaria and the Netherlands, not available.
(2) 2004.
(3) 2005.
(4) 2001.

Source: Eurostat (tsier060)

13.3 Consumption of energy

Introduction

As well as supply-side policies, a number of EU initiatives have been aimed at reducing energy demand, in an attempt to decouple it from the growth in economic activity. Several instruments and implementing measures exist in this field, including the promotion of co-generation, the energy performance of buildings (whether private or public buildings), and energy labelling of domestic appliances.

In October 2006 the European Commission adopted an action plan for energy efficiency (COM(2006) 545) [5] which was supported by the Council in November 2006. The plan proposes to cut energy consumption by 20 % by 2020, and in so doing simultaneously address the issues of import dependency, energy-related emissions, and energy costs.

Providing transport for goods and passengers, whether for own-use or for hire and reward, consumes significant amounts of energy. There are many factors that impact on energy use and emissions in transport, for example, overall economic growth, the efficiency of individual transport modes, the combination of different transport modes, alternative fuels, and lifestyle choices.

In 2001, the European Commission adopted a policy to promote biofuels for transport, and a number of targets were set. In March 2007 the Council supported increasing the level of renewables (such as biofuels) in transport fuel to 10 % by 2020.

Definitions and data availability

Gross inland consumption expresses the total energy needs of a country. It covers consumption by the energy branch itself, distribution and transformation losses, and final energy consumption. The share of renewables in gross inland energy consumption is defined as the percentage share of renewables in gross inland energy consumption.

Final energy consumption includes the consumption by all users except the energy branch itself (whether deliveries for transformation and/or own use), and includes, for example, energy consumption by agriculture, industry, services and households, as well as energy consumption for transport. It should be noted that the fuel quantities transformed in the electrical power stations of industrial auto-producers and the quantities of coke transformed into blast-furnace gas are not part of overall industrial consumption but of the transformation sector. Final energy consumption in transport covers the consumption in all types of transportation, i.e., rail, road, air transport and inland navigation. Final energy consumption in households, services, etc. covers quantities consumed by private households, commerce, public administration, services, agriculture and fisheries.

(5) http://ec.europa.eu/energy/action_plan_energy_efficiency/index_en.htm.

Energy intensity is measured as the ratio between gross inland consumption of energy and gross domestic product (GDP) for a given calendar year. It measures the energy consumption of an economy and its overall energy efficiency. The ratio is expressed as kgoe (kilogram of oil equivalent) per EUR 1 000, and to facilitate analysis over time the calculations are based on GDP in constant prices (currently using 1995 prices). If an economy becomes more efficient in its use of energy, and its GDP remains constant, then the ratio for this indicator should fall; this energy intensity ratio is also considered as an indicator of energy efficiency. The GDP figures are taken at constant prices to avoid the impact of the inflation, base year 1995.

Main findings

Gross inland consumption of energy within the EU-27 in 2006 was 1 825 million toe, almost unchanged compared with both 2004 and 2005, and as such was just over double the level of the production of primary energy. The gross inland consumption of each Member State depends on the structure of its energy system and the availability of natural resources. This is true not only for conventional fuels and nuclear power, but also for renewables. For example, although small in absolute levels, the use of solar power is relatively high in the Mediterranean countries such as Cyprus, while the use of biomass is high in countries with large forest areas, for example, Latvia, Finland and Sweden. In the same vein, hydropower is particularly important in mountainous countries with ample water supplies, such as Austria or Sweden.

Final energy consumption in the EU-27 was equivalent to just under two thirds of gross inland consumption, at 1 176 million toe in 2006. This level was only slightly higher than the previous two years, and over the ten years from 1996 to 2006 final energy consumption increased on average by just 0.5 % per annum. An analysis by main type of energy shows a shift in the energy mix between 1996 and 2006, most notably through a fall in the consumption of solid fuels (-3.8 % per annum) and an increase in the consumption of renewables (2.8 % per annum) and electricity (2.0 %).

An analysis of the end-use of energy shows three dominant categories, namely industry, households and road transport, each with a share of just over one quarter of the total. Combining all forms of transport, including road, air transport and others (such as inland waterways and rail), the transport share reached 31 %: road transport accounted for 82 % of the total energy consumption for transport purposes, and air transport for 14 %. Between 1996 and 2006 energy consumption for inland waterways and for rail transport fell, while consumption for road transport increased by an average of 1.6 % per annum and for air transport it increased, on average, by 3.8 % per annum. The rates of change for 2006 compared with 2005 were broadly in line with these longer term trends, except for

inland water transport which recorded an increase of 11.0 % in consumption in 2006, following on from a 4.4 % increase in 2005 bringing consumption for inland waterways to its highest level since 1999.

In 2007 a minimum target was set that renewables (such as biofuels) should account for 10 % of transport petrol and diesel by 2020. Data for 2006 show that biofuels made the biggest contribution to transport consumption of fuels in Germany (5.5 %), Slovakia (2.5 %) and Sweden (2.2 %), and these were the only Member States (for which data are available) where the share of biofuels was above the EU-27 average of 1.5 %.

The lowest level of energy intensity recorded by the EU-27 Member States was in Denmark, while the most energy-intensive countries were Bulgaria and Romania. It should be noted that the economic structure of an economy plays an important role in determining energy intensity, as post-industrial economies with large service sectors will, a priori, display low levels of energy intensity compared with economies that have a considerable proportion of their economic activity within industrial activities.

Table 13.6: Gross inland consumption of energy
(million tonnes of oil equivalent)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Share in EU-27, 2006 (%)
EU-27	1 719	1 704	1 722	1 710	1 723	*1 762*	*1 758*	*1 803*	*1 824*	*1 826*	*1 825*	100.0
Euro area	1 134	1 135	1 158	1 163	1 178	*1 207*	*1 208*	*1 238*	*1 257*	*1 257*	*1 253*	*68.6*
Belgium	58	59	60	61	61	60	58	61	61	61	60	3.3
Bulgaria	23	20	20	18	19	19	19	20	19	20	21	1.1
Czech Republic	43	43	41	38	41	42	42	46	46	45	46	2.5
Denmark	23	21	21	20	20	20	20	21	20	20	21	1.1
Germany	350	347	346	340	341	353	346	349	350	347	349	19.1
Estonia	6	6	5	5	5	5	5	5	6	6	5	0.3
Ireland	12	12	13	14	14	15	15	15	16	15	16	0.9
Greece	25	26	27	27	28	29	30	30	31	31	32	1.7
Spain	101	107	113	118	124	127	131	135	141	145	144	7.9
France	255	249	256	256	260	267	267	272	276	276	273	15.0
Italy	162	164	169	172	173	174	174	183	185	187	186	10.2
Cyprus	2	2	2	2	2	2	2	3	2	2	3	0.1
Latvia	5	4	4	4	4	4	4	4	4	4	5	0.3
Lithuania	9	9	9	8	7	8	9	9	9	9	8	0.5
Luxembourg	3	3	3	3	4	4	4	4	5	5	5	0.3
Hungary	26	26	26	25	25	25	26	27	27	28	28	1.5
Malta	1	1	1	1	1	1	1	1	1	1	1	0.0
Netherlands	77	76	76	76	77	*79*	*80*	82	84	82	81	4.4
Austria	29	29	29	29	29	31	31	33	33	34	34	1.9
Poland	104	103	96	94	91	91	90	92	92	94	98	5.4
Portugal	20	22	23	25	25	25	26	26	26	27	25	1.4
Romania	48	45	42	37	37	37	38	40	40	39	41	2.2
Slovenia	6	7	6	6	6	7	*7*	*7*	*7*	*7*	*7*	*0.4*
Slovakia	18	18	17	17	18	19	19	19	19	19	19	1.0
Finland	31	33	33	33	33	33	35	37	37	35	38	2.1
Sweden	52	50	51	50	48	51	51	50	53	52	51	2.8
United Kingdom	229	223	231	229	232	233	227	231	233	233	230	12.6
Croatia	7	8	8	8	8	8	8	9	9	9	9	-
Turkey	68	71	73	71	78	72	75	79	82	85	95	-
Iceland	2	3	3	3	3	3	3	3	3	4	4	-
Norway	23	24	26	27	26	27	24	27	28	32	25	-
Switzerland	25	26	26	26	26	27	26	27	27	27	28	-

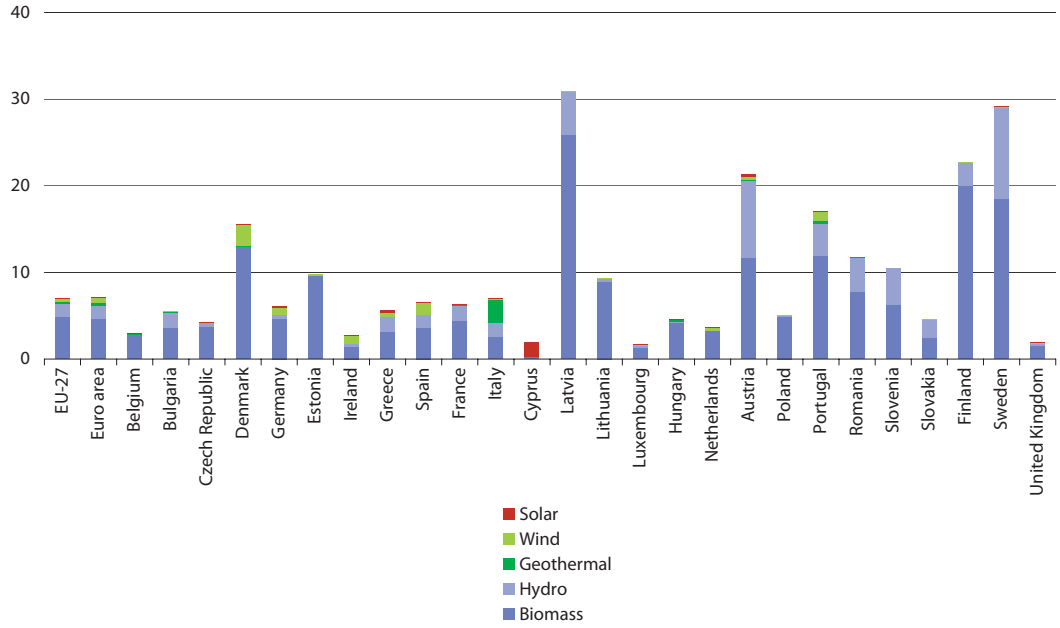
Source: Eurostat (ten00086)

Table 13.7: Final energy consumption
(million tonnes of oil equivalent)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	Share in EU-27, 2006 (%)
EU-27	1 115	1 104	1 111	1 108	*1 114*	*1 140*	*1 126*	*1 158*	*1 171*	*1 172*	*1 176*	100.0
Euro area	745	741	756	759	*767*	*789*	*781*	*805*	*813*	*814*	*815*	*69.3*
Belgium	38	38	39	39	39	39	38	40	39	38	38	3.2
Bulgaria	12	9	10	9	9	9	9	9	9	10	10	0.9
Czech Republic	26	25	24	24	24	24	24	25	26	26	26	2.2
Denmark	15	15	15	15	15	15	15	15	15	15	16	1.3
Germany	231	225	224	219	218	224	219	222	220	*218*	*223*	*19.0*
Estonia	3	3	3	2	2	3	3	3	3	3	3	0.2
Ireland	8	9	9	10	11	11	11	11	12	12	13	1.1
Greece	17	17	18	18	19	19	20	21	20	21	21	1.8
Spain	65	68	72	*74*	*80*	*84*	*86*	*91*	*95*	*97*	*97*	*8.2*
France	150	148	153	152	152	158	154	157	160	159	158	13.4
Italy	115	116	119	124	123	126	125	130	131	133	131	11.1
Cyprus	1	1	2	2	2	2	2	2	2	2	2	0.2
Latvia	4	4	4	3	3	4	4	4	4	4	4	0.4
Lithuania	4	5	4	4	4	4	4	4	4	4	5	0.4
Luxembourg	3	3	3	3	4	4	4	4	4	4	4	0.4
Hungary	16	16	16	16	16	16	17	18	17	18	18	1.5
Malta	0	1	0	0	0	0	0	0	0	1	0	0.0
Netherlands	52	50	50	49	50	51	51	52	53	52	51	4.3
Austria	23	22	23	23	23	25	25	26	26	27	27	2.3
Poland	66	65	60	58	55	56	54	56	57	57	60	5.1
Portugal	15	15	16	17	18	18	18	18	20	19	19	1.6
Romania	30	29	26	22	22	23	23	24	25	25	25	2.1
Slovenia	4	5	4	4	4	5	*5*	*5*	*5*	*5*	*5*	*0.4*
Slovakia	11	11	10	10	10	11	11	11	11	11	11	0.9
Finland	22	24	24	25	24	24	25	26	26	25	27	2.3
Sweden	35	34	34	34	34	33	34	34	34	34	33	2.8
United Kingdom	150	148	149	152	152	153	149	151	152	152	151	12.8
Croatia	5	5	5	5	5	5	6	6	6	6	6	-
Turkey	49	50	50	49	55	50	55	59	60	63	69	-
Iceland	2	2	2	2	2	2	2	2	2	2	2	-
Norway	18	18	18	19	18	19	18	18	18	18	18	-
Switzerland	20	20	20	21	20	21	20	21	21	22	22	-

Source: Eurostat (ten00095)

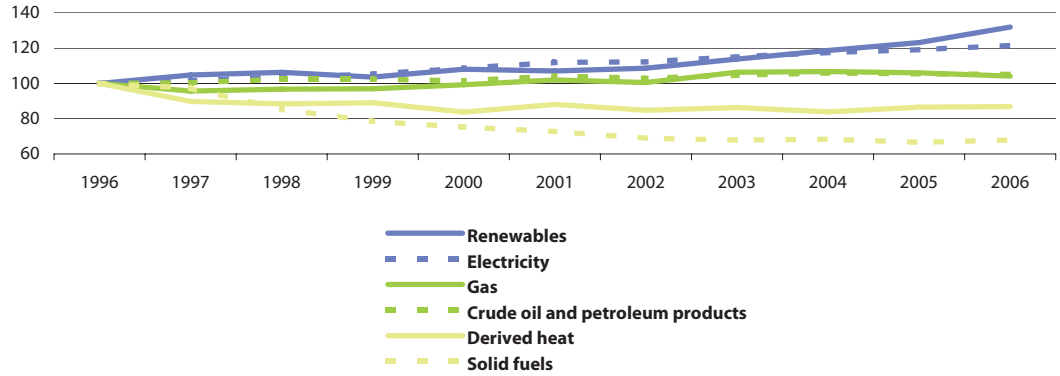
Figure 13.7: Share of renewables in gross inland energy consumption, 2006 (1)
(%)



(1) Malta, not available; EU-27, euro area and Slovenia, provisional.

Source: Eurostat (tsdcc110)

Figure 13.8: Final energy consumption, EU-27 (1)
(1996=100)

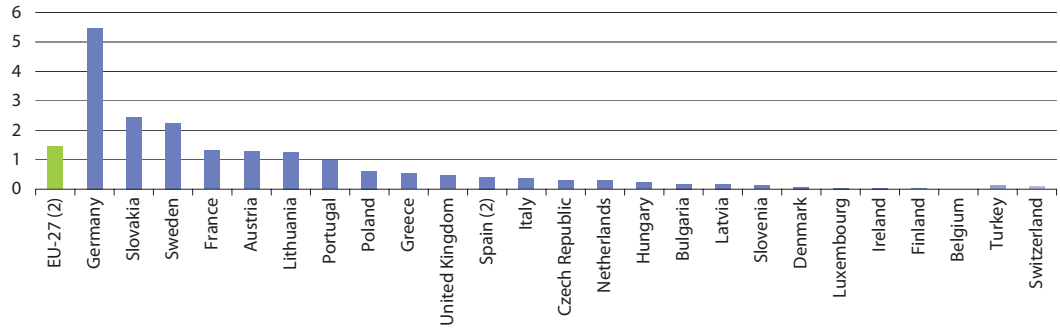


(1) Final energy consumption, 2006 (million toe): renewables 59.1; electricity 241.9; gas 278.7; crude oil and petroleum products 496.7; derived heat 41.3; solid fuels 55.5.

Source: Eurostat (nrg_1071a, nrg_105a, nrg_103a, nrg_102a, nrg_106a and nrg_101a)

Figure 13.9: Share of biofuels in total fuel consumption of transport, 2006 (1)

(%)

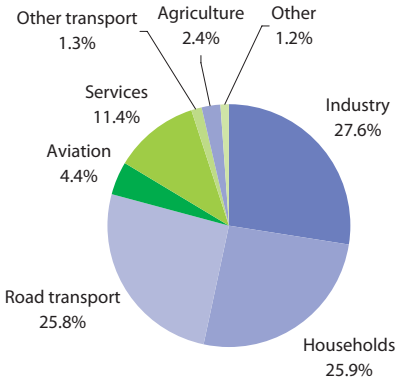


(1) Estonia, Cyprus, Malta and Romania, not available.
(2) Provisional.

Source: Eurostat (nrg_1073a and nrg_100a)

Figure 13.10: Final energy consumption, EU-27, 2006 (1)

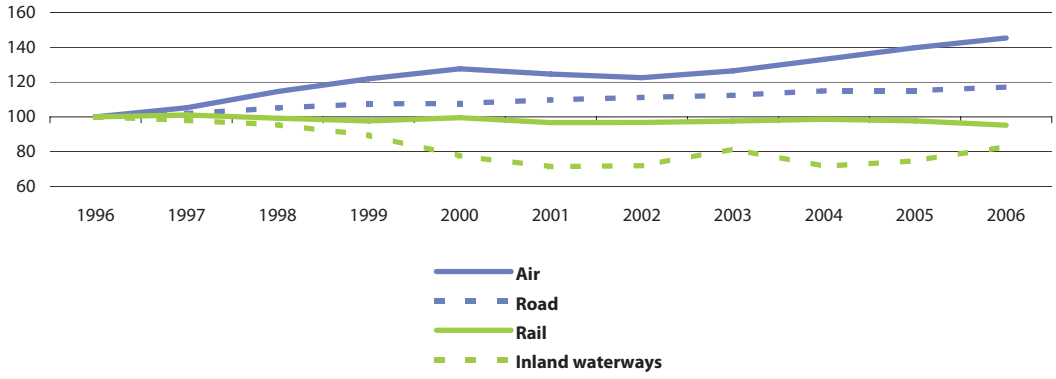
(% of total, based on tonnes of oil equivalent)



(1) Provisional.

Source: Eurostat (tsdpc320 and tsdtr100)

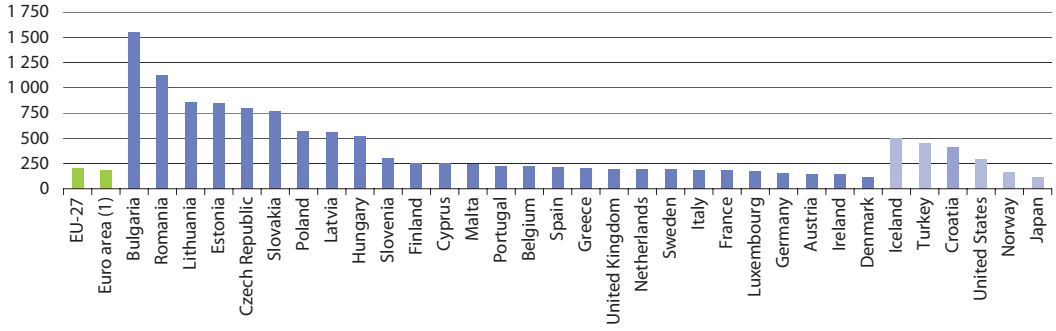
Figure 13.11: Energy consumption by transport mode, EU-27 (1)
(1996=100)



(1) Provisional: 2002 for all modes; provisional: 2005 and 2006 for rail.

Source: Eurostat (tsdtr100)

Figure 13.12: Energy intensity of the economy, 2006
(kgoe per EUR 1 000 of GDP)



(1) EA-13 instead of EA-15.

Source: Eurostat (tsien020)

13.4 Energy prices

Introduction

Ever increasing energy demand, the global geopolitical situation and severe weather conditions have induced rapid, large changes in energy prices. Crude oil prices increased significantly from 2004 to the middle of 2008, since when they have dropped back sharply, although at the time of writing remain well above their levels at the beginning of 2004. Changes in oil prices have an impact on the price of substitutes, notably natural gas, and also feed into the prices of products from other sectors that are heavy users of energy or of energy products as raw materials.

The price and reliability of energy supplies, and of electricity in particular, is a key element of a country's energy supply, and particularly important with respect to international competitiveness, as electricity usually represents a high proportion of total energy costs to households and businesses. In contrast to the price of fossil fuels, which are usually traded on global markets with relatively uniform prices, there is a particularly wide range of prices within the EU for electricity. The price of electricity is, to some degree, influenced by the price of primary fuels and more recently also by the cost of carbon dioxide (CO_2) emission certificates, and it is possible that resulting higher prices for electricity will provide an incentive for greater energy efficiency and lower levels of carbon emissions.

There have been moves within the EU to liberalise the electricity and gas market since the second half of the 1990s. Directives of the European Parliament and the Council adopted in 2003 established common rules for the internal markets in electricity and natural gas, and set deadlines for market opening, allowing customers to choose their supplier: 1 July 2004 for all business customers and 1 July 2007 for all consumers including households. Certain countries anticipated the liberalisation process, while others were slower in adopting these measures. Significant barriers to entry remain in many electricity and natural gas markets, as witnessed in many Member States which are still dominated by (near) monopoly suppliers. In September 2007, the European Commission adopted a third package of legislative proposals [6] aimed at ensuring a real and effective choice of supplier and benefits for customers; at the time of writing the Council had unanimously reached a political agreement on this package, which was due for a second reading by the European Parliament.

Definitions and data availability

Energy prices are currently collected at a national level, whereas in the past they were collected at a regional level or, in some cases, even for individual cities. Time-series for prices start in 1985, with data for the Member States that joined the EU in 2004 and 2007 generally available from 2004 onwards.

(6) http://ec.europa.eu/energy/electricity/package_2007/index_en.htm.

Statistics on **electricity and natural gas prices** are collected on a half-yearly basis – they are shown here as a snapshot as of 1 January of each year. Electricity prices for households are normally shown including taxes and value added tax (VAT), as these are generally the end price paid by the consumer at point of use. For the purposes of comparison industrial gas and electricity prices are also shown here including all taxes, although in practise enterprises can deduct VAT paid.

Automotive fuel prices shown are at the pump prices of premium unleaded gasoline (petrol) 95 RON and automotive diesel oil. The prices are supplied to the Directorate-General for Energy and Transport of the European Commission by the Member States as being the most frequently encountered on the first Monday after the 15th of each month. Eurostat also publishes price information on heating oil and residual fuel oil.

Main findings

Electricity and gas tariffs vary from one supplier to another. They may be the result of negotiated contracts, especially for large industrial consumers. For smaller consumers they are generally set according to the amount of electricity or gas consumed, and a number of other characteristics that vary from one country to another; most tariffs also include some form of fixed charge. Therefore, there is no single price for electricity or gas in any EU Member State. In order to compare prices over time and between countries, two 'standard consumers' are presented, one representing domestic consumers and the other industrial consumers. All electricity price data are given in euro per 100 kWh and correspond to prices applicable on 1 January of the reference year; a similar set of criteria are used for gas prices, except the unit changes to euro per GJ.

Electricity and gas prices have increased strongly in recent years, particularly gas prices. Between 2005 and 2007 prices increased for households and industrial users in nearly all Member States for both types of energy: Latvia recorded significantly lower electricity prices for households, Finland slightly lower electricity prices for industrial users, and Denmark recorded lower prices for industrial users for both types of energy. In percentage terms, price increases for households were particularly high in Romania, the United Kingdom and Ireland, while industrial users faced the largest increases in the United Kingdom, Romania and Slovakia. In 2007, the price of electricity for households was nearly four times higher in the most expensive Member State, Denmark, than in the cheapest Member States, namely Bulgaria and Latvia. The range of household prices for gas was even greater, with the highest prices again in Denmark, more than five times the lowest, in Estonia; household gas prices were also significantly higher in Sweden than in other Member States. A large part of the price differences between the Member States can be attributed to taxes, as the range in prices excluding taxes is less than the range when including taxes.

As with electricity and gas prices, petrol and diesel prices have also risen in recent years. The highest prices for unleaded petrol in the EU during the first half of 2008 were recorded in the Netherlands, Belgium, Portugal and the United Kingdom, while the United Kingdom had by some margin the most expensive pump price for diesel. The lowest prices for petrol and diesel were in Romania and Bulgaria, the Baltic Member States, the islands of Cyprus and Malta, as well as in Slovenia, while Luxembourg and Spain also recorded particularly low diesel prices.

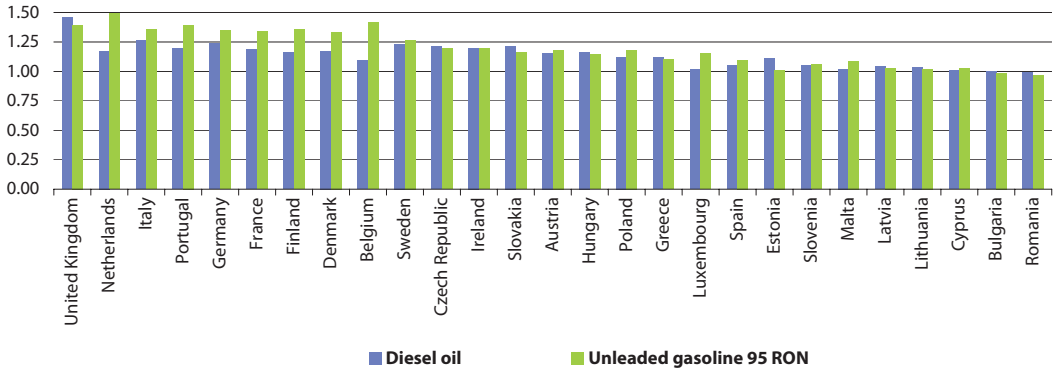
Table 13.8: Electricity and gas prices (including taxes), as of 1 January
(EUR)

	Electricity prices (per 100 kWh)						Gas prices (per GJ)					
	Households (1)			Industry (2)			Households (3)			Industry (4)		
	2005	2006	2007	2005	2006	2007	2005	2006	2007	2005	2006	2007
EU-15	13.82	14.40	15.81	8.94	9.98	10.97	11.81	13.51	15.66	7.84	10.34	11.29
Euro area (5)	14.70	15.10	16.05	9.49	10.27	11.22	13.36	15.33	16.98	7.93	10.28	11.08
Belgium	14.81	14.42	15.81	9.38	11.72	11.73	11.16	13.50	12.89	6.43	8.61	8.47
Bulgaria	6.44	6.60	6.60	5.16	5.52	5.62	6.73	7.70	8.83	4.53	5.40	6.26
Czech Republic	8.68	9.85	10.67	7.13	8.70	9.30	7.49	10.03	9.45	6.08	8.74	7.81
Denmark	22.78	23.62	25.79	10.86	12.06	10.74	28.44	29.82	30.84	8.49	8.58	8.16
Germany	17.85	18.32	19.49	10.47	11.53	12.72	13.56	15.98	18.45	10.29	13.44	15.79
Estonia	6.78	7.31	7.50	5.57	6.02	6.30	4.63	4.63	5.89	3.25	3.36	4.36
Ireland	14.36	14.90	16.62	10.56	11.48	12.77	9.98	12.51	16.73	:	:	:
Greece	6.88	7.01	7.20	6.97	7.28	7.61	:	:	:	:	:	:
Spain	10.97	11.47	12.25	8.36	8.79	9.87	11.90	13.63	14.23	5.43	8.40	8.21
France	11.94	11.94	12.11	6.91	6.91	7.01	10.57	12.72	13.46	7.58	9.78	9.26
Italy	19.70	21.08	23.29	12.02	13.29	15.26	15.34	16.50	18.34	7.30	8.41	9.88
Cyprus	10.74	14.31	13.76	9.27	13.04	12.26	-	-	-	-	-	-
Latvia	8.28	8.29	6.88	4.82	4.82	5.23	4.54	5.34	7.50	4.11	4.77	6.24
Lithuania	7.18	7.18	7.76	5.88	5.88	6.46	5.41	6.24	7.04	4.25	5.26	7.10
Luxembourg	14.78	16.03	16.84	9.02	9.49	10.54	8.14	10.33	11.52	7.36	9.55	10.45
Hungary	10.64	10.75	12.22	8.86	9.13	9.84	5.10	5.28	7.16	6.94	9.40	11.64
Malta	7.64	9.49	9.87	7.41	7.46	9.42	-	-	-	-	-	-
Netherlands	19.55	20.87	21.80	10.70	11.38	12.25	15.17	16.92	18.42	8.90	11.15	11.59
Austria	14.13	13.40	15.45	9.92	10.35	11.43	13.36	15.65	15.99	9.83	12.99	13.27
Poland	10.64	11.90	12.16	6.78	7.27	7.23	7.55	9.46	10.69	6.47	8.25	9.20
Portugal	13.81	14.10	15.00	7.49	8.58	9.03	12.34	14.52	13.88	6.33	8.01	8.15
Romania	7.79	9.43	10.17	9.15	9.20	10.02	4.79	7.66	9.05	4.38	7.42	8.71
Slovenia	10.33	10.49	10.64	7.33	7.81	8.90	10.33	12.99	13.86	7.07	9.55	9.75
Slovakia	13.38	14.48	15.37	8.37	9.20	11.11	8.14	10.88	11.48	6.04	9.12	9.52
Finland	10.57	10.78	11.60	6.99	6.86	6.89	:	:	:	8.43	9.51	9.87
Sweden	13.97	14.35	17.14	4.68	5.93	6.31	22.18	25.95	26.58	9.20	12.26	12.21
United Kingdom	8.77	10.20	13.16	6.96	9.66	11.44	7.26	8.24	11.76	7.17	10.82	12.75
Norway	15.71	15.33	18.56	8.12	8.06	10.58	:	:	:	:	:	:

(1) Annual consumption: 3 500 kWh of which night 1 300.
(2) Annual consumption: 2 000 MWh; maximum demand: 500 kW; annual load: 4 000 hours); special category for Luxembourg.
(3) Annual consumption: 83.70 GJ.
(4) Annual consumption: 41 860 GJ; load factor: 200 days, 1 600 hours); special category for Belgium.
(5) EA-12 instead of EA-15.

Source: Eurostat (nrg_pc_priceind)

Figure 13.13: Price of premium unleaded gasoline and diesel oil, January 2008
(EUR per litre, including taxes)



Source: Eurostat (ten00103 and ten00102) and Directorate-General for Energy and Transport