

**BRIEFING**

**STAT 01 EN**

**ENERGY AND ENVIRONMENT**  
**BASIC STATISTICS, INDICATORS AND TRENDS**



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## Summary

The tables provide with a few exceptions the same data/figures/graphs for all Member States and acceding and applicant countries in the field of energy and environment with a special focus on renewable energies. In some cases other countries and regions are included.

EUROSTAT (New Cronos) was used as source in the first instance. When, however, there was insufficient data from this source then the International Energy Agency (IEA), the European Environmental Agency, European Wind Energy Association (EWEA) and Global Wind Energy Council (GWEC) and a few other sources have been very useful alternatives. National statistics have not been used.

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The briefing is done on a privat initiative taken by Peter Palinkas and Jens Dalsgaard

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## COMMENTS ON TABLES

All tables are easy to read and understand. Comments are restricted, only a short introduction is given.

- **Table 1** shows the population for EU, Acceding and Applicant countries; as well as the gross domestic product (GDP) total in EURO and in PPS, and per capita in PPS (**P**urchasing **P**ower **S**tandard). It also gives the final energy consumption (total, per capita and per million GDP (PPS)). There are major differences between the countries. Except for Croatia the GDP per capita is much higher in EU countries than in the Acceding and Applicant countries. CO<sub>2</sub> emissions per capita show a big variation within the EU - especially if CO<sub>2</sub> emissions to GDP (in PPS) are compared. CO<sub>2</sub> emissions per MIO GDP for EU15-countries are - in general - much lower than for the new Member States (indication of more energy efficiency in EU15). Final energy consumption tends to be higher in EU15 - thus reflecting the higher economic output (GDP); but in relation to GDP, final energy consumption is less in the EU15 - thus reflecting the higher energy efficiency in EU15 than in the new Member States.

- **Table 2:** Breaks down the primary energy production into total primary production and production from renewable energies. Also the self-sufficiency rate (indigenous production as percentage part of gross inland consumption) is shown in table 2. Final energy consumption is broken down into consumption of the respective sectors (industry, transport and households). In order to avoid a misinterpretation, one has to keep in mind that some countries (especially Luxembourg and Portugal), only have a very small indigenous production, which depends totally on renewable energies; but the self-sufficiency rate in the case of Luxembourg is only 1.6 %, Cyprus 3.9% and Portugal only 14.9 %. A self-sufficiency rate above 100 (Denmark with 154.4) are indicating that this country is net exporter. A major difference between the EU15 and the new Member States is the fact that the percentage part of the transport sector is - in general - higher in EU15.

- **Table 3** gives a breakdown of primary energy production by sources (solid fuels, gas, crude oil, nuclear and renewable).

- **Table 4** gives energy balances and indicators for the European Union in 1995 and 2004. Energy dependency has increased from 1995 to 2004, but the variation between Member States are big. Energy intensity measured as final energy consumption (kilogram of oil equivalent (kgoe)) per GDP (in 1000 EUR at 1995-prices) has improved from 1995 to 2004, however the data are in general much better for the EU15-countries than for the new Member States.

- **Table 5** gives a breakdown of final energy consumption by fuel (oil, coal, gas, electricity/heat and renewable) for different years (1980, 1990, 2000 and 2004). Figures indicate that the percentage part of renewable energies for EU15 have increase from 2.3 % in 1980 to 3.7 % in 2004.

- **Table 6 and figure 1:** The development between 1995 and 2004 in GDP, final energy consumption, total and intensity is analysed. The overall performance in energy efficiency has been improved, however it got worse in 2004. The improvement over the period was not sufficient, however, to avoid an increase in total energy consumption.

- **Table 7** gives a short overview concerning primary energy production from renewable sources in 2004. It appears that the major part of renewable energies stems from biomass and waste (roughly two thirds of total energy production comes from renewables). Another element is hydro energy, whilst wind plays an important role in Denmark, Germany, Ireland, the Netherlands and Spain; solar energy is strongly utilised in Cyprus and Greece, and Italy makes good use of geothermal energy.
  
- **Table 8 and figure 2** illustrate the trend in primary energy production from renewable sources for the EU25.
  
- **Table 9 and 10.** Gross production of electrical energy is broken down by sources (hydro, geothermal electrical energy and wind energy) for EU in 1994, 1999 and 2004 (in GWh and as % of total Gross generation of electrical energy).
  
- **Table 11 and figure 3** give for EU25 the trend (1990-2004) of gross generation of electrical energy by source.
  
- **Table 12** gives a short summary concerning gross renewable electric energy generation as a percentage part of total gross generation of electrical energy for the periods 1994, 1999 and 2004. The renewable generation is broken down by sources. The figures are to some extent misleading: Luxembourg for example, does not have a real indigenous energy production, but some hydro power, which in 2004 contributed to 87.4 % of the total gross production of electrical energy (see also table 3 and table 2); in the case of Luxembourg the self-sufficiency rate is only 1.6 %; thus, the small indigenous hydro production leads to a high percentage part of gross production of electrical energy or primary energy production.
  
- **Table 13 and figure 4** illustrate for the European Union, Member States, acceding and applicant countries renewable as % of total gross energy generation and as % of final energy consumption for the year 2004.
  
- **Table 14** reveals the important part of biomass as part of primary energy production (see also table 7, where total primary energy production from renewable sources was broken down into biomass, hydro wind, solar and geothermal). For EU15 biomass presents a high percentage part (8.3 % in 2004) of total primary energy production and for EU25 8,1%.
  
- **Table 15** gives a short summary concerning total gross inland energy consumption and total primary energy production by region (World, EU, NAFTA, US, Central and Eastern Europe, CIS and Baltic, Russia, Africa, Middle East, China, Japan, and Latin America). **Table 15** reveals the differences between regions concerning total primary energy supply and total energy production.
  
- **Table 16 and figure 5** gives a short overview for different regions in the world concerning CO<sub>2</sub>-emissions and other greenhouse gas emissions of the energy sector. Of particular interest is the difference between the regions, especially if CO<sub>2</sub> emissions are calculated per capita (f.ex. US 19.679 kg of CO<sub>2</sub>/capita in 2003, whereas the world figure is only 3.986 kg/capita and Africa is only reaching 897 kg/capita). Recently i.e. 2000-2003 the most unfavourable development has been in Brazil, China and India with a growth as high as 20.1%. In the same period the increase has been 0.4% in USA, 4.5% in the EU25, see **figure 5**.

- **Table 17** compares important energy indicators for regions and individual countries. Measured on the energy efficiency (as total primary energy supply/gross domestic products) the European Union is doing very well. When it comes to CO<sub>2</sub>/GDP the European Union is also doing well. Measured on both these indicators Russia and the Middle East are doing extremely badly.

- **Table 18** analyses the trend in the greenhouse gas in the European Union, Member States and USA and Japan in relation to the Kyoto protocol targets. The EU-15 has a GHG emissions reduction target of -8% over 1990 levels with national targets set under a burden sharing agreement. The New Member States are not part of this. The total emissions in 2004 were 0.9% lower than the base year 1990. Germany - the largest emitter - has reduced the emissions by 17.5%, whilst Spain has increased the emissions by 47.9%. Eleven of the 25 Member States were in 2004 below the Kyoto Protocol targets. In the EU25 CH<sub>4</sub> emissions accounts for 10.4% in 1990 and 7.9% in 2004, whilst N<sub>2</sub> accounts for 9.2% in 1990 and 8.1% in 2004.

- **Figure 6** shows the GHG in 2000-2004 for EU-15, EU-25, USA and Japan indexed on base year = 100. For comparison the emissions relative to 2008-2012 Kyoto Protocol targets are included.

- **Table 19** gives a short overview concerning emissions in EU25 by sectors in the period 1990-2003. During this period total CO<sub>2</sub> emissions were reduced by 5.5%. Except for the transport sector CO<sub>2</sub> emissions were reduced for all sectors.

- **Table 20 and figure 8** confirm the close correlation between economic activity and energy consumption. Assuming an economic growth of average 2% until 2030 would increase gross inland energy consumption by 80% to 3.150 million tons of oil equivalent from 1.747 million in 2004.

- **Table 21** shows the actual and forecast figures of installed wind energy capacity. The global wind energy capacity will be able to grow - according to forecast by Global Wind Energy Council (GWEC) - substantially from 2004 to 2010 (from 59.1 MW in 2005 to 160.000 MW in 2010). **Table 21** gives also a regional breakdown as far as installed wind energy capacity is concerned. The countries with most wind power capacity are Germany - by far the largest, with just over 18,428 MW - followed by USA, Spain, Denmark and India. Compared to population Denmark is leading by far with 576.9 watts/capita followed by Spain (233.0) and Germany (223.4). For EU15 the gross electricity generation from wind has increased from 4.067 GWh in 1995 to 68.278 in 2005. Germany saw for the third year a setback installing 1.799 megawatt in 2005. Spain installed 1.764 megawatt in 2005, i.e. 300 megawatt less than in 2004.

- **Figures 10 to 13** (page 31) show - focusing on wind energy - for EU15, Denmark, Germany and Spain the development of gross production of electrical energy by renewable sources (period 1991-2004).

- **Table 22 and figures 14 and 15** give the World Reserves of crude oil and natural gas. Crude oil reserves are concentrated at the Middle East. The concentration of natural gas to a specific region is less significant. 26.6% of the reserves are in Russia.

- **Table 23 and figure 16.** Crude oil reserves, production and demand by countries and country groups are compared.

- **Table 24 and figure 17** give on regional level similar information as **table 23/figure 15**.



- **Table 25 and figure 18** illustrate the dependency on imported energy from oil. Especially the level for Japan is high - all oil is imported.
- **Table 26 and figure 19** show the refinery output by countries/region for the period 1971-2005.
- **Figure 20.** Inter-regional flows (mb/d) appear in this figure
- **Figure 21** illustrates the flow of oil out of the Middle East and North Africa (MENA) in 2004 and forecasts for 2030 according to various scenerios.
- **Figure 22 and figure 23** deal with the flow of gas. **Figure 22** shows the forecasted flow out of Middle East and North Africa in 2010 and 2030, whilst **figure 23** shows inter-regional flow in 2004 and forecast for 2030.
- **Table 27** shows for the European Union (EU25) the economic burden of the imports of energy.
- **Table 28.** For major energy exporting countries the importance of energy has been analysed.
- **Figure 24, 25 and 26** show the development of selected oil prices for certain time periods (1st January 1998-24th October 2006 (**figure 23**), monthly from January 1988-August 2006 (**figure 24**) and annually 1977-2005 (**figure 25**)).
- **Table 29 and figure 27** 88% of coal reserves are equal distributed between Asia/Oceania, Eastern Europe/Former U.S.S.R. and North America. 4% of the reserves are in the European Union (EU27).
- World hydropower potential is illustrated in **figure 28**.

**Table 1: Socio-economic, environmental and energy statistics**  
**Basic statistics of EU, Member States, acceding and applicant countries**

	Population (1 January 2005)	Gross Domestic Products (GDP) 2005			CO <sub>2</sub> emission 2003 (Sectoral approach)			Final energy consumption 2004		
		Total		per capita	Total	per capita	per MIO GDP (PPS)	Total	per capita	per MIO GDP (PPS)
	'000	MIO EUR	MIO PPS	PPS	Mt	kg	tonne	1000 toe	toe	toe
<b>EU-25</b>	461 070,5	10 846 457	10 846 457	23 500	3 883,6	8 423	358	1 140 880	2,48	109,3
<b>EU-15</b>	386 965,5	10 286 302	9 864 106	26 500	3 316,5	8 571	336	1 012 744	2,63	106,5
<b>BE</b>	10 445,9	298 541	289 123	28 500	120,1	11 497	415	37 416	3,59	134,0
<b>CZ</b>	10 220,6	99 733	177 142	9 700	117,0	11 447	660	25 784	2,52	157,7
<b>DK</b>	5 411,4	208 546	157 889	38 500	56,2	10 385	356	15 168	2,81	101,8
<b>DE</b>	82 500,8	2 241 000	2 115 009	27 200	854,3	10 355	404	229 920	2,79	113,7
<b>EE</b>	1 347,0	11 061	19 011	8 200	16,3	12 101	857	2 747	2,04	174,6
<b>GR</b>	11 082,8	181 088	213 202	16 300	94,1	8 491	441	20 245	1,83	98,5
<b>ES</b>	43 038,0	905 455	1 003 847	20 900	313,2	7 277	312	94 317	2,21	99,6
<b>FR</b>	62 370,8	1 710 024	1 600 246	27 300	389,6	6 247	243	157 903	2,54	101,9
<b>IE</b>	4 109,2	161 163	133 830	38 800	41,0	9 978	306	11 528	2,83	92,1
<b>IT</b>	58 462,4	1 417 241	1 409 018	24 200	453,4	7 755	322	131 206	2,26	94,1
<b>CY</b>	749,2	13 418	14 815	17 700	7,0	9 344	473	1 850	2,50	133,3
<b>LV</b>	2 306,4	12 837	25 454	5 600	7,2	3 122	283	3 873	1,67	172,5
<b>LT</b>	3 425,3	20 621	41 694	6 000	12,2	3 562	293	4 281	1,25	115,0
<b>LU</b>	455,0	29 396	26 551	64 300	9,9	21 758	373	4 396	9,70	179,5
<b>HU</b>	10 097,5	88 800	145 323	8 800	57,7	5 714	397	17 399	1,72	126,3
<b>MT</b>	402,7	4 515	6 586	11 200	2,5	6 209	380	456	1,14	71,8
<b>NL</b>	16 305,5	505 646	475 265	31 000	184,7	11 327	389	52 456	3,22	114,1
<b>AT</b>	8 206,5	245 103	236 354	29 800	74,7	9 103	316	25 550	3,14	113,6
<b>PL</b>	38 173,8	243 398	445 498	6 400	293,3	7 683	658	56 935	1,49	134,8
<b>PT</b>	10 529,3	147 378	176 514	13 900	58,9	5 594	334	20 122	1,92	116,7
<b>SI</b>	1 997,6	27 634	37 818	13 800	15,2	7 609	402	4 787	2,40	133,7
<b>SK</b>	5 384,8	38 113	69 481	7 100	38,7	7 187	557	10 024	1,86	154,7
<b>FI</b>	5 236,6	157 377	139 476	30 000	72,6	13 864	521	26 541	5,08	196,7
<b>SE</b>	9 011,4	287 970	242 607	31 900	53,6	5 948	221	33 952	3,78	141,9
<b>UK</b>	59 800,0	1 790 671	1 645 175	29 700	540,2	9 033	328	152 022	2,56	96,2
<b>Acceding and applicant countries:</b>										
<b>BG Bulgaria</b>	7 761,0	21 448	58 249	2 800	46,6	6 004	800	9 026	1,16	167,5
<b>HR Croatia</b>	4 443,9	30 947	50 831	7 000	21,0	4 726	413	6 134	1,38	130,3
<b>MK Macedonia, FYR</b>	2 035	4 522	12 123	2 200	8,2	4 029	676	n.a.	n.a.	n.a.
<b>RO Romania</b>	21 658,5	79 314	176 073	3 700	94,7	4 372	538	26 112	1,20	165,2
<b>TR Turkey</b>	71 607,5	290 503	519 447	4 000	202,9	2 834	391	58 131	0,82	125,4

Sources: New Cronos, EUROSTAT

CO<sub>2</sub> Emissions from fuel combustion 1971-2003, IEA (International Energy Agency)

Note: PPS = Purchasing power standard

Production: Jens Dalsgaard

Figures written in *italic* are provisional/estimations

**Table 2: Primary energy production, Gross inland consumption and  
Final energy consumption in 2004**

- 1000 toe -

	Primary production			Gross inland consumption	Self sufficiency - % - (1)	Final energy consumption	by sector (as %):		
	Total all products	of which:					Industry	Transport	Households
		Total renewable energy							
		1000 toe	- % -						
EU-25	882 650	109 161	12,4	1 747 142	50,5	1 140 880	27,9	30,7	26,3
EU-15	741 492	97 145	13,1	1 536 502	48,3	1 012 744	27,6	31,8	25,9
BE	13 159	955	7,3	54 826	24,0	37 416	33,3	27,3	26,8
CZ	32 260	1 498	4,6	43 558	74,1	25 784	38,2	23,9	22,6
DK	30 868	2 734	8,9	19 998	154,4	15 168	19,3	33,9	28,1
DE	135 266	13 755	10,2	347 741	38,9	229 920	25,4	27,2	33,5
EE	4 031	687	17,0	5 639	71,5	2 747	22,7	17,0	42,4
GR	10 268	1 560	15,2	30 631	33,5	20 245	20,0	39,3	26,5
ES	32 399	8 977	27,7	140 246	23,1	94 317	32,5	40,7	15,2
FR	135 591	17 385	12,8	273 700	49,5	157 903	22,7	31,8	26,5
IE	1 902	325	17,1	15 707	12,1	11 528	18,5	39,9	24,8
IT	28 036	11 882	42,4	184 819	15,2	131 206	31,4	33,5	22,9
CY	97	97	100,0	2 488	3,9	1 850	29,5	46,4	14,9
LV	2 141	2 137	99,8	4 594	46,6	3 873	19,2	24,8	36,8
LT	4 959	742	15,0	9 150	54,2	4 281	21,9	30,8	32,0
LU	73	73	100,0	4 676	1,6	4 396	22,6	60,1	14,4
HU	10 132	965	9,5	26 187	38,7	17 399	19,6	22,2	34,5
MT	-	-	-	887	-	456	10,3	58,6	19,5
NL	67 860	2 364	3,5	82 283	82,5	52 456	28,2	28,7	19,9
AT	9 526	6 769	71,1	32 713	29,1	25 550	29,9	30,1	26,7
PL	77 946	4 325	5,5	92 509	84,3	56 935	31,2	19,9	30,6
PT	3 894	3 894	100,0	26 172	14,9	20 122	35,8	36,2	15,1
SI	3 435	822	23,9	7 114	48,3	4 787	32,0	28,8	25,8
SK	6 158	742	12,0	18 513	33,3	10 024	41,5	15,8	26,6
FI	15 502	8 862	57,2	37 708	41,1	26 541	49,7	17,9	18,8
SE	34 500	14 131	41,0	53 137	64,9	33 952	39,0	24,2	21,0
UK	222 647	3 479	1,6	232 144	95,9	152 022	22,7	35,2	28,5
Acceding and applicant countries:									
BG Bulgaria	10 168	1 009	9,9	18 867	53,9	9 026	39,7	26,2	23,3
HR Croatia	3 852	977	25,4	8 842	43,6	6 134	25,4	29,7	30,7
RO Romania	28 414	4 661	16,4	39 588	71,8	26 112	41,1	19,8	30,5
TR Turkey	24 193	10 783	44,6	81 859	29,6	58 131	36,3	22,0	29,6

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

(1) excluding changes in stocks

Figures written in *italic* are provisional

**Table 3: Primary energy production by sources, 2004**

- 1000 toe -

	Total all products	of which:									
		Fossil fuels						Nuclear		Renewable and wastes	
		Solid fuels		Gas		Crude oil /petroleum products					
		1000 toe	- % -	1000 toe	- % -	1000 toe	- % -	1000 toe	- % -	1000 toe	- % -
EU-25	882 650	190 470	21,6	192 232	22	136 426	15	254 361	28,8	109 161	12,4
EU-15	741 492	90 907	12,3	185 631	25	133 007	18	234 801	31,7	97 145	13,1
BE	13 159	0	0,0	0	0,0	-	-	12204	92,7	955	7,3
CZ	32 260	23 511	72,9	162	0,5	297	0,9	6791	21,1	1 498	4,6
DK	30 868	-	-	8492	27,5	19643	63,6	0	0,0	2 734	8,9
DE	135 266	58 341	43,1	14732	10,9	5343	3,9	43095	31,9	13 755	10,2
EE	4 031	3 029	75,1	-	-	314	7,8	0	0,0	687	17,0
GR	10 268	8 547	83,2	29	0,3	133	1,3	0	0,0	1 560	15,2
ES	32 399	6 453	19,9	310	1,0	252	0,8	16407	50,6	8 977	27,7
FR	135 591	99	0,1	1108	0,8	1374	1,0	115625	85,3	17 385	12,8
IE	1 902	889	46,7	688	36,2	-	-	0	0,0	325	17,1
IT	28 036	62	0,2	10615	37,9	5476	19,5	0	0,0	11 882	42,4
CY	97	-	-	-	-	-	-	0	0,0	97	100,0
LV	2 141	3	0,1	-	-	-	-	0	0,0	2 137	99,8
LT	4 959	14	0,3	-	-	307	6,2	3 896	78,6	742	15,0
LU	73	-	-	-	-	-	-	0	0,0	73	100,0
HU	10 132	2 182	21,5	2367	23,4	1545	15,2	3 074	30,3	965	9,5
MT	-	-	-	-	-	-	-	0	-	-	-
NL	67 860	-	-	61585	90,8	2925	4,3	986	1,5	2 364	3,5
AT	9 526	55	0,6	1667	17,5	1035	10,9	0	0,0	6 769	71,1
PL	77 946	68 805	88,3	3926	5,0	890	1,1	0	0,0	4 325	5,5
PT	3 894	0	0,0	-	-	-	-	0	0,0	3 894	100,0
SI	3 435	1 201	35,0	4	-	0	0,0	1 408	41,0	822	23,9
SK	6 158	817	13,3	142	2,3	65	1,1	4 392	71,3	742	12,0
FI	15 502	780	5,0	-	-	0	0,0	5 860	37,8	8 862	57,2
SE	34 500	381	1,1	-	-	0	0,0	19 988	57,9	14 131	41,0
UK	222 647	15 300	6,9	86406	38,8	96826	43,5	20 636	9,3	3 479	1,6
Acceding and applicant countries:											
BG Bulgaria	10 168	4 524	44,5	267	2,6	30	0,3	4 457	43,8	1 009	9,9
HR Croatia	3 852	0	0,0	1796	46,6	1079	28,0	0	0,0	977	25,4
RO Romania	28 414	6 207	21,8	10377	36,5	5738	20,2	1 266	4,5	4 661	16,4
TR Turkey	24 193	10 599	43,8	566	2,3	2245	9,3	0	0,0	10 783	44,6

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

Figures written in *italic* are provisional

**Table 4: Energy balances and indicators in the European Union and  
applicant countries, 1995 and 2004**

	Primary energy production		Net energy imports		Gross inland energy consumption		Final energy consumption		Energy dependency*		Energy efficiency**		Energy intensity*** Final energy consumption	
	1995	2004	1995	2004	1995	2004	1995	2004	1995	2004	1995	2004	1995	2004
	in 1000 toe								- % -		- % -		kgoe/1000 EUR	
<b>EU-25</b>	896 412	882 650	702 136	907 268	1 578 146	1 747 142	1 027 013	<i>1 140 880</i>	44,5	51,9	65,1	65,3	150,1	133,3
<b>EU-15</b>	738 058	741 492	652 471	838 055	1 367 661	1 536 502	895 886	<i>1 012 744</i>	47,7	54,5	65,5	65,9	135,6	123,2
<b>BE</b>	10 939	13 159	43 775	49 309	50 459	54 826	34 489	37 416	86,8	89,9	68,4	68,2	163,1	142,1
<b>CZ</b>	31 582	32 260	8 432	11 040	40 825	43 558	25 611	25 784	20,7	25,3	62,7	59,2	605,9	502,7
<b>DK</b>	15 543	30 868	7 538	-9 968	20 247	19 998	14 751	15 168	37,2	-49,8	72,9	75,8	106,0	91,3
<b>DE</b>	140 520	135 266	195 124	214 708	338 019	347 741	222 342	229 920	57,7	61,7	65,8	66,1	115,2	105,5
<b>EE</b>	3 350	4 031	1 930	1 652	5 276	5 639	2 486	2 747	36,6	29,3	47,1	48,7	865,1	555,4
<b>GR</b>	9 702	10 268	18 207	24 588	24 137	30 631	15 811	20 245	75,4	80,3	65,5	66,1	175,9	158,9
<b>ES</b>	31 207	32 399	75 415	114 056	102 207	140 246	63 536	<i>94 317</i>	73,8	81,3	62,2	67,3	142,2	149,2
<b>FR</b>	126 024	135 591	116 049	139 757	239 896	273 700	141 242	157 903	48,4	51,1	58,9	57,7	117,6	107,6
<b>IE</b>	4 256	1 902	7 608	13 714	11 025	15 707	7 910	11 528	69,0	87,3	71,7	73,4	155,7	112,5
<b>IT</b>	29 220	28 036	134 924	159 073	161 446	184 819	113 563	131 206	83,6	86,1	70,3	71,0	135,3	134,3
<b>CY</b>	42	97	2 017	2 407	1 970	2 488	1 409	1 850	102,4	96,7	71,5	74,4	201,0	194,7
<b>LV</b>	1 470	2 141	3 305	3 043	4 778	4 594	3 859	3 873	69,2	66,2	80,8	84,3	1 031,3	586,4
<b>LT</b>	3 249	4 959	5 668	4 443	8 267	9 150	4 524	4 281	68,6	48,6	54,7	46,8	925,8	531,8
<b>LU</b>	47	73	3 257	4 590	3 335	4 676	3 151	4 396	97,7	98,2	94,5	94,0	227,9	182,7
<b>HU</b>	12 849	10 132	12 642	15 914	25 269	26 187	15 621	17 399	50,0	60,8	61,8	66,4	457,8	352,9
<b>MT</b>	-	-	877	910	795	887	435	456	110,3	102,6	54,7	51,4	:	149,9
<b>NL</b>	65 909	67 860	16 340	29 703	73 355	82 283	47 623	52 456	22,3	36,1	64,9	63,8	150,1	128,6
<b>AT</b>	8 492	9 526	17 757	23 148	26 709	32 713	20 302	25 550	66,5	70,8	76,0	78,1	110,8	114,6
<b>PL</b>	97 990	77 946	-152	13 620	100 078	92 509	63 360	56 935	-0,2	14,7	63,3	61,5	609,5	367,2
<b>PT</b>	2 602	3 894	17 876	22 423	19 611	26 172	13 042	20 122	91,2	85,7	66,5	76,9	152,1	184,0
<b>SI</b>	3 020	3 435	3 038	3 708	6 087	7 114	3 940	4 787	49,9	52,1	64,7	67,3	257,2	219,0
<b>SK</b>	4 800	6 158	11 907	12 482	17 139	18 513	9 883	10 024	69,5	67,4	57,7	54,1	666,3	474,3
<b>FI</b>	13 150	15 502	15 418	20 806	28 834	37 708	22 010	26 541	53,5	55,2	76,3	70,4	219,8	191,5
<b>SE</b>	31 512	34 500	19 206	20 054	50 371	53 137	33 679	33 952	38,1	37,7	66,9	63,9	177,5	139,0
<b>UK</b>	248 934	222 647	-36 021	12 093	218 011	232 144	142 436	152 022	-16,5	5,2	65,3	65,5	164,3	135,1
<b>Acceding and applicant countries:</b>														
<b>BG</b>	10 191	10 168	13 475	9 121	23 304	18 867	11 402	9 026	57,8	48,3	48,9	47,8	1 138,0	778,9
<b>HR</b>	9 581	3 852	2 922	5 090	12 492	8 842	4 473	6 134	23,4	57,6	35,8	69,4	310,8	299,0
<b>RO</b>	32 142	28 414	14 542	11 974	47 107	39 588	25 356	26 112	30,9	30,2	53,8	66,0	935,6	809,3
<b>TR</b>	26 524	24 193	36 758	58 574	62 027	81 859	44 580	58 131	59,3	71,6	71,9	71,0	344,1	321,3

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

\* net energy imports/gross consumption

\*\*final energy consumption/gross inland consumption

\*\*\*Final energy consumption/GDP (1995-prices)

Figures written in *italic* are provisional

**Table 5: Final consumption of energy by fuel 1980, 1990, 2000 and 2004 (Mtce)(1)**

			Total	of which:								Total	of which:								Total	of which:				
				Oil	Coal	Gas	Electricity /Heat	Renew. (2)					Oil	Coal	Gas	Electricity /Heat	Renew. (2)					Oil	Coal	Gas	Electricity /Heat	Renew. (2)
			Mtce	- as % of total -								Mtce	- as % of total -								Mtce	- as % of total -				
EU-15	1980	1 271,07	56,0	9,9	16,8	15,1	2,3	IE	1980	9,44	62,9	19,5	6,6	11,2	0,0	SK	1980	19,98	36,3	26,0	21,4	14,9	1,3			
	1990	1 333,34	50,7	8,1	19,2	18,5	3,5		1990	11,18	53,0	19,8	12,8	13,1	1,3		1990	22,57	36,3	26,0	21,4	14,9	1,3			
	2000	1 494,27	50,5	2,8	22,5	20,6	3,7		2000	16,08	64,1	5,2	14,1	15,4	1,2		2000	16,00	27,6	12,6	37,2	22,4	0,2			
	2004	1 579,75	49,0	2,4	22,8	22,0	3,7		2004	17,11	66,6	4,2	11,0	16,5	1,6		2004	16,23	26,0	11,8	32,2	27,0	3,0			
BE	1980	47,13	53,2	12,8	21,5	12,5	0,0	IT	1980	149,39	63,6	3,2	19,3	13,1	0,7	FI	1980	28,06	52,5	5,6	2,2	22,1	17,6			
	1990	47,44	52,2	10,6	20,5	15,7	1,0		1990	168,07	54,5	2,9	26,0	15,7	0,9		1990	32,46	42,5	6,9	4,3	30,7	15,5			
	2000	60,37	52,0	6,2	24,1	16,9	0,8		2000	188,35	49,4	2,0	29,3	17,8	1,5		2000	35,38	33,7	4,6	4,0	37,5	20,2			
	2004	58,95	50,7	3,8	26,2	18,0	1,2		2004	206,87	47,1	2,1	28,7	20,7	1,4		2004	38,81	33,5	3,9	3,5	39,4	19,7			
CZ	1980	50,16	27,6	52,5	6,8	13,2	0,0	LU	1980	3,99	39,1	37,3	12,8	11,0	0,0	SE	1980	50,07	58,8	2,4	0,2	27,6	11,0			
	1990	48,27	25,3	39,5	14,2	21,1	0,0		1990	4,22	55,5	18,5	14,2	12,1	0,0		1990	45,91	43,7	3,3	1,1	37,5	14,4			
	2000	35,98	30,0	18,3	23,5	27,3	0,9		2000	5,17	64,6	3,5	17,2	14,3	0,4		2000	50,44	38,8	2,1	1,3	41,4	16,4			
	2004	39,50	34,0	14,0	22,5	26,2	3,3		2004	6,41	69,0	2,0	15,1	13,3	0,3		2004	51,01	38,8	2,2	1,5	42,9	14,7			
DK	1980	22,08	77,9	3,0	0,8	15,9	2,5	HU	1980	31,88	42,0	16,7	21,5	17,6	2,2	UK	1980	193,15	47,0	10,4	27,6	15,0	0,0			
	1990	19,82	54,4	2,9	8,3	30,2	4,1		1990	30,02	35,2	12,8	29,5	20,5	2,0		1990	207,68	47,3	7,4	28,7	16,2	0,3			
	2000	21,52	49,3	2,0	11,1	33,5	4,2		2000	24,75	31,9	4,1	38,6	23,0	2,5		2000	230,01	46,2	2,1	31,8	19,4	0,5			
	2004	22,31	48,9	1,7	10,9	33,8	4,6		2004	27,35	31,9	3,4	40,5	20,4	3,7		2004	233,79	47,2	1,9	31,3	19,2	0,5			
DE	1980	362,07	50,3	18,5	14,1	16,3	0,8	NL	1980	72,93	41,3	1,5	47,5	9,7	0,0	EU-19	1980	1 485,14	51,6	13,9	16,1	16,3	2,1			
	1990	353,25	47,6	15,1	16,6	19,5	1,2		1990	73,25	39,0	2,4	45,0	13,0	0,6		1990	1 523,07	47,4	10,6	18,9	19,8	3,3			
	2000	343,90	51,0	3,7	22,9	20,4	2,1		2000	85,07	41,1	1,4	38,8	18,1	0,6		2000	1 654,76	48,6	4,2	22,5	21,0	3,7			
	2004	359,60	45,9	3,6	24,8	23,3	2,4		2004	90,41	43,0	1,5	36,8	18,1	0,6		2002	1 749,77	47,4	3,6	22,8	22,4	3,9			
GR	1980	16,56	77,4	4,0	0,0	14,8	3,9	AT	1980	27,00	53,0	10,3	15,1	16,0	5,6	TR										
	1990	22,09	69,5	7,8	0,7	15,8	6,2		1990	28,56	46,0	6,4	15,3	21,4	10,9		1980	37,90	48,7	15,7	0,2	6,3	29,2			
	2000	27,86	69,0	4,5	1,9	19,2	5,3		2000	34,30	45,7	3,4	17,8	23,2	9,9		1990	57,86	51,3	18,7	1,8	9,5	18,7			
	2004	30,62	69,7	2,6	2,8	20,2	4,8		2004	39,45	47,1	2,3	17,8	22,8	9,9		2000	82,54	46,6	18,0	7,8	14,9	12,7			
ES	1980	70,82	77,0	5,0	2,1	15,6	0,3	PL	1980	112,05	17,1	39,9	9,8	32,3	1,0		2004	89,95	43,1	17,1	12,1	17,1	10,7			
	1990	89,28	63,9	5,2	7,4	17,3	6,3		1990	88,87	18,4	28,0	12,7	38,3	2,6											
	2000	127,24	62,6	1,4	13,9	18,2	3,9		2000	83,76	30,8	22,7	13,9	26,0	6,6											
	2004	147,83	59,4	1,6	16,3	19,2	3,6		2004	86,94	32,8	18,6	15,6	25,9	7,0											
FR	1980	206,52	62,7	5,9	13,4	12,6	5,4	PT	1980	11,86	74,2	2,4	0,6	15,1	7,7											
	1990	210,12	54,0	5,1	16,3	18,0	6,6		1990	20,01	64,0	4,2	0,3	14,6	16,7											
	2000	239,68	52,3	2,5	19,5	20,1	5,6		2000	28,90	63,4	0,8	5,7	18,2	12,0											
	2004	246,10	51,4	2,0	19,7	21,1	5,8		2004	30,48	62,7	0,4	6,0	19,2	11,7											

Source: Coal information 2006, IEA

Production: Jens Dalsgaard

(1) million metric tons of coal equivalent

(2) Combustible Renewable/Waste, Geothermal and Solar/Wind/Tide

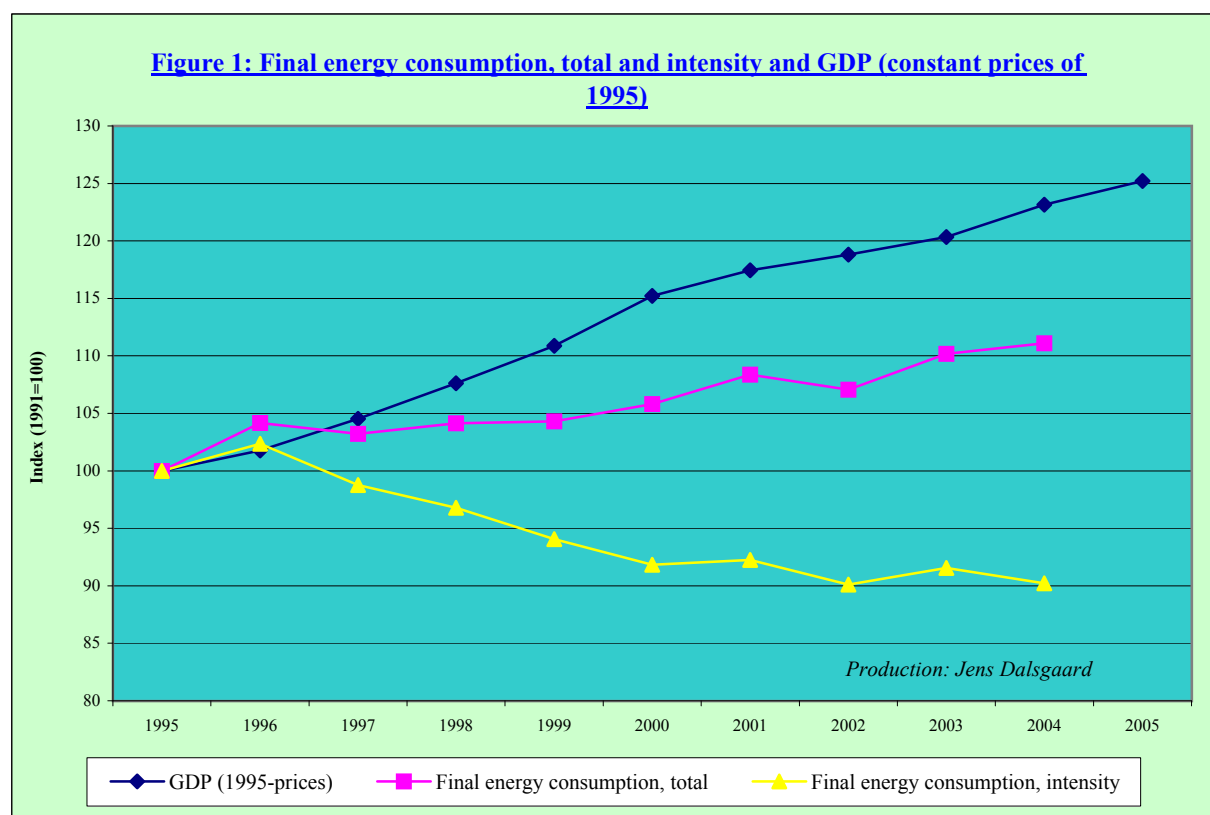
**Table 6: Development in the intensity of energy consumption  
in the European Union (25), 1995-2004**

	GDP (constant 1995 prices)		Final energy consumption, total		Final energy consumption, intensity	
	Mio EUR	1995=100	1000 TOE	1995=100	TOE/MIO EUR (GDP)	1995=100
1995	6 949 725	100,0	1027013	100,0	147,8	100,0
1996	7 072 121	101,8	1069770	104,2	151,3	102,4
1997	7 263 572	104,5	1060194	103,2	146,0	98,8
1998	7 478 629	107,6	1069636	104,2	143,0	96,8
1999	7 705 914	110,9	1071181	104,3	139,0	94,1
2000	8 006 414	115,2	1086646	105,8	135,7	91,8
2001	8 162 614	117,5	1112916	108,4	136,3	92,3
2002	8 257 686	118,8	1099644	107,1	133,2	90,1
2003	8 362 988	120,3	1131564	110,2	135,3	91,6
2004	8 558 438	123,1	<i>1140880</i>	111,1	133,3	90,2
2005	8 702 459	125,2				

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

Figures written in *italic* are provisional



**Table 7: Primary energy production from renewable sources in 2004**

	<u>Total renew. and wastes (1)</u>	<u>of which:</u>								<u>Total renew. energy</u>	<u>of which:</u>				
		<u>Biomass/ waste</u>	<u>of which:</u>			<u>Hydro</u>	<u>Wind</u>	<u>Solar energy</u>	<u>Geother- mal energy</u>		<u>Bio- mass/wa- ste</u>	<u>Hydro</u>	<u>Wind</u>	<u>Solar energy</u>	<u>Geother- mal energy</u>
			<u>Wood &amp; wood wastes</u>	<u>Biogas</u>	<u>Municip- al solid waste</u>										
	<b>- 1000 toe -</b>								<b>- as % of total renewable Energy -</b>						
<b>EU-25</b>	109 161	71 897	56 792	3 728	9 285	26 128	5 033	743	5 360	100,0	65,9	23,9	4,6	0,7	4,9
<b>EU-15</b>	97 145	61 471	46 750	3 602	9 116	24 748	5 015	649	5 261	100,0	63,3	25,5	5,2	0,7	5,4
<b>BE</b>	955	913	386	72	454	27	11	3	1	100,0	95,6	2,8	1,2	0,3	0,1
<b>CZ</b>	1 498	1 324	1 101	50	106	174	1	-	-	100,0	88,4	11,6	-	-	-
<b>DK</b>	2 734	2 154	1 128	89	883	2	566	9	2	100,0	78,8	0,1	20,7	0,3	0,1
<b>DE</b>	13 755	9 367	6 130	995	1 248	1 812	2 173	269	134	100,0	68,1	13,2	15,8	2,0	-
<b>EE</b>	687	685	683	2	-	2	1	-	-	100,0	99,7	0,3	-	-	-
<b>GR</b>	1 560	953	917	36	-	402	96	108	1	100,0	61,1	25,8	6,2	6,9	0,1
<b>ES</b>	8 977	4 853	4 026	253	326	2 713	1 341	62	8	100,0	54,1	30,2	14,9	0,7	0,1
<b>FR</b>	17 385	12 007	9 255	211	2 133	5 179	49	19	130	100,0	69,1	29,8	0,3	0,1	0,7
<b>IE</b>	325	214	184	30	-	54	56	0	0	100,0	65,8	16,6	17,2	0,0	0,0
<b>IT</b>	11 882	3 145	1 575	319	986	3 671	159	19	4 888	100,0	26,5	30,9	1,3	0,2	41,1
<b>CY</b>	97	5	4	-	1	-	-	92	-	100,0	5,2	-	-	94,8	-
<b>LV</b>	2 137	1 866	1 859	7	-	267	4	-	-	100,0	87,3	12,5	-	-	-
<b>LT</b>	742	706	701	2	-	36	-	-	-	100,0	95,1	4,9	-	-	-
<b>LU</b>	73	59	15	5	38	9	3	1	-	100,0	80,8	12,3	-	1,4	-
<b>HU</b>	965	860	821	6	33	18	-	2	86	100,0	89,1	1,9	-	0,2	8,9
<b>MT</b>	-	-	-	-	-	-	-	-	-	100,0	-	-	-	-	-
<b>NL</b>	2 364	2 175	724	126	1 325	8	161	20	-	100,0	92,0	0,3	6,8	0,8	-
<b>AT</b>	6 769	3 452	3 206	45	181	3 132	79	86	19	100,0	51,0	46,3	1,2	1,3	0,3
<b>PL</b>	4 325	4 126	4 062	47	1	179	12	-	8	100,0	95,4	0,0	-	-	0,2
<b>PT</b>	3 894	2 877	2 683	4	189	849	70	21	78	100,0	73,9	21,8	-	0,5	2,0
<b>SI</b>	822	470	463	7	-	352	-	-	-	100,0	57,2	42,8	-	-	-
<b>SK</b>	742	385	350	6	29	353	-	-	5	100,0	51,9	47,6	-	-	0,7
<b>FI</b>	8 862	7 556	7 391	26	138	1 296	10	1	-	100,0	85,3	14,6	0,1	0,0	-
<b>SE</b>	14 131	8 883	8 198	35	635	5 170	73	5	-	100,0	62,9	36,6	0,5	0,0	-
<b>UK</b>	3 479	2 863	930	1 354	580	424	166	25	1	100,0	82,3	12,2	4,8	0,7	0,0
<b>Acceding and applicant countries:</b>															
<b>BG Bulgaria</b>	1 009	737	737	-	-	272	-	-	-	100,0	73,0	27,0	-	-	-
<b>HR Croatia</b>	977	379	379	-	-	598	-	-	-	100,0	38,8	61,2	-	-	-
<b>MK</b>															
<b>RO Romania</b>	4 661	3 160	3 160	-	-	1 420	-	-	80	100,0	67,8	30,5	-	-	1,7
<b>TR Turkey</b>	10 783	5 550	5 542	7	-	3 963	5	375	891	100,0	51,5	36,8	0,0	3,5	8,3

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

Figures written in *italic* are provisional

(1) excluding Industrial Wastes



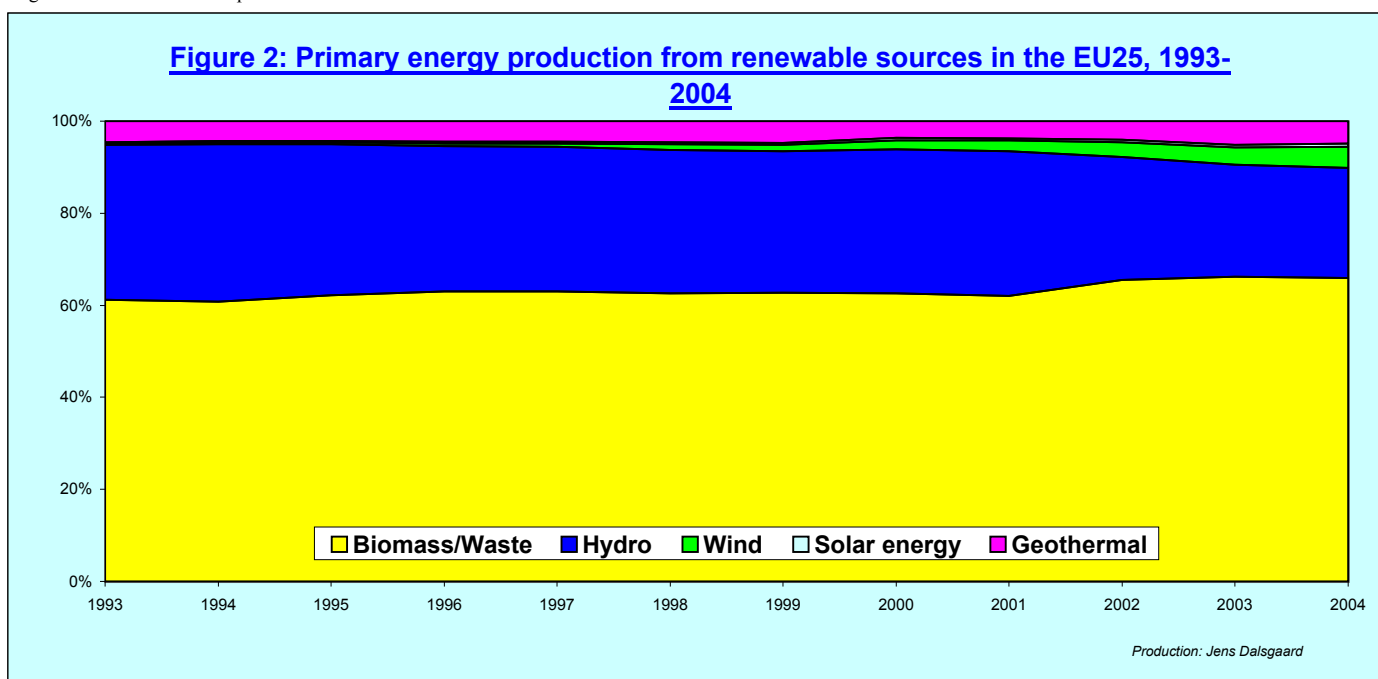
**Table 8: Primary energy production from renewable sources in the EU25, 1990-2004**

	<u>Total renew. and wastes</u>	of which:								<u>Total renew. energy</u>	of which:				
		<u>Biomass/ waste</u>	of which:			<u>Hydro</u>	<u>Wind</u>	<u>Solar energy</u>	<u>Geother- mal energy</u>		<u>Bio- mass/wa- ste</u>	<u>Hydro</u>	<u>Wind</u>	<u>Solar energy</u>	<u>Geother- mal energy</u>
			<u>Wood &amp; wood wastes</u>	<u>Biogas</u>	<u>Municip- al solid waste</u>										
<b>- 1000 toe -</b>										<b>- as % of total renewable Energy -</b>					
1990	68 672	41 898	37 099	690	4 103	23 365	67	152	3 189	100,0	61,0	34,0	0,1	0,2	4,6
1991	70 872	43 512	38 540	800	4 165	23 946	94	165	3 154	100,0	61,4	33,8	0,1	0,2	4,5
1992	73 237	43 950	38 738	932	4 266	25 541	133	183	3 428	100,0	60,0	34,9	0,2	0,2	4,7
1993	77 378	47 385	41 889	1 060	4 394	25 987	203	201	3 602	100,0	61,2	33,6	0,3	0,3	4,7
1994	78 480	47 717	41 887	1 143	4 568	26 814	300	225	3 424	100,0	60,8	34,2	0,4	0,3	4,4
1995	80 238	49 879	43 143	1 266	5 267	26 293	350	273	3 443	100,0	62,2	32,8	0,4	0,3	4,3
1996	82 499	52 011	44 568	1 418	5 722	26 042	417	304	3 725	100,0	63,0	31,6	0,5	0,4	4,5
1997	85 542	53 899	45 901	1 629	5 967	26 838	630	328	3 846	100,0	63,0	31,4	0,7	0,4	4,5
1998	88 561	55 374	46 918	1 759	6 330	27 674	1 038	361	4 114	100,0	62,5	31,2	1,2	0,4	4,6
1999	89 643	56 226	47 052	1 916	6 859	27 525	1 221	372	4 299	100,0	62,7	30,7	1,4	0,4	4,8
2000	92 979	58 246	47 962	2 283	7 388	29 000	1 913	417	3 403	100,0	62,6	31,2	2,1	0,4	3,7
2001	97 520	60 503	49 325	2 808	7 769	30 609	2 320	474	3 614	100,0	62,0	31,4	2,4	0,5	3,7
2002	95 797	62 725	50 375	3 389	7 925	25 559	3 070	537	3 906	100,0	65,5	26,7	3,2	0,6	4,1
2003	102 698	68 059	54 316	3 369	8 976	24 932	3 815	617	5 275	100,0	66,3	24,3	3,7	0,6	5,1
2004	109 161	71 897	56 792	3 728	9 285	26 128	5 033	743	5 360	100,0	65,9	23,9	4,6	0,7	4,9

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

Figures written in *italic* are provisional



In GWh

Table 9: Gross generation of electrical energy in the European Union analysed by sources and Member States: 1994, 1999 and 2004

	Total gross electricity generation						of which:																							
							Nuclear power plants			Coal-fired stations			Hydro power plants			Natural gas-fired power stations			Lignite-fired power stations			Oil-fired power stations			Biomass-fired power stations			Wind energy		
	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004
EU-25	2 561 306	2 849 363	3 179 132	843 429	922 937	986 074	623 788	578 320	647 866	330 148	347 852	337 192	217 022	444 497	601 043	278 101	262 955	288 845	208 900	196 840	142 774	21 982	35 680	67 908	2 974	14 216	44 356	3 450	4 483	5 521
EU-15	2 268 389	2 532 975	2 820 466	791 953	867 244	910 247	504 572	451 473	508 586	312 391	329 035	318 359	208 353	427 459	574 837	199 777	184 392	208 295	194 000	181 407	131 450	21 319	35 133	65 374	2 974	14 210	44 184	3 450	4 483	5 521
BE	72 236	84 521	85 441	40 624	49 017	47 312	16 980	9 939	9 147	1 184	1 489	1 607	8 275	19 231	21 477	-	-	-	1 618	1 035	1 675	518	828	1 535	9	13	90	-	-	-
CZ	58 705	64 693	84 323	12 977	13 357	26 325	42 151	43 891	49 422	1 776	2 215	2 562	393	3 008	3 827	-	0	320	225	491	427	348	309	1	738	-	-	-	-	-
DK	40 107	38 897	40 463	-	-	-	32 738	20 081	18 675	33	31	27	2 332	9 078	10 001	-	-	-	3 064	4 879	1 633	803	1 799	3 544	1 137	3 029	5 561	-	-	-
DE	527 710	555 465	606 636	151 203	170 004	167 065	144 628	143 083	135 319	22 461	23 613	27 874	40 076	55 063	61 475	146 103	135 984	157 911	8 774	5 845	10 140	3 615	5 251	11 473	909	5 528	18 859	-	-	-
EE	9 151	8 267	10 296	-	-	-	0	0	0	3	4	22	343	308	684	8 675	7 646	9 524	130	297	36	0	12	30	-	-	-	-	-	-
GR	40 623	49 860	59 344	-	-	-	146	12	0	2 842	5 058	5 205	80	3 907	8 991	29 432	32 369	35 380	8 011	8 157	8 385	1	1	123	37	162	1 021	-	-	-
ES	161 775	209 030	279 953	55 313	58 852	63 606	47 423	66 788	73 114	29 182	25 437	34 439	3 229	19 058	55 460	14 143	6 821	5 991	10 509	24 445	23 839	754	1 774	3 029	175	2 744	12 075	-	-	-
FR	476 904	523 985	572 241	359 981	394 244	448 241	19 217	28 371	25 807	81 578	77 601	65 421	3 625	6 933	18 353	1 676	908	0	5 617	9 952	5 855	1 955	2 874	5 181	5	37	391	-	-	-
IE	17 105	22 051	25 569	-	-	-	6 684	5 833	6 229	1 198	1 090	984	4 456	6 956	12 911	1 913	1 682	1 487	2 836	6 170	3 211	0	91	92	18	187	454	-	-	-
IT	231 504	264 994	303 322	0	0	0	19 577	23 551	45 518	47 731	51 777	49 908	40 411	86 983	129 772	279	261	0	116 309	91 379	58 889	285	1 824	5 359	6	403	1 458	3 417	4 403	5 437
CY	2 681	3 139	4 176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2 681	3 139	4 176	-	-	-	0	0	0	-	-	-
LV	4 440	4 110	4 689	-	-	-	0	0	0	3 305	2 757	3 109	312	956	1 433	78	37	0	745	358	60	0	0	38	0	2	48	-	-	-
LT	10 021	13 535	19 273	7 706	9 862	15 102	0	0	0	718	861	943	332	1 000	2 691	0	0	0	1 243	1 752	361	0	0	6	-	-	-	-	-	-
LU	1 190	1 021	4 136	-	-	-	-	-	-	688	747	859	47	204	3 153	-	-	-	14	0	0	50	50	85	0	18	26	-	-	-
HU	33 605	37 719	33 702	14 049	14 661	11 915	0	0	432	161	181	205	4 924	7 822	11 648	8 731	9 505	7 746	5 523	5 306	840	0	0	751	-	-	-	-	-	-
MT	1 541	1 792	2 216	-	-	-	359	0	0	-	-	-	-	-	-	-	-	-	1 182	1 792	2 216	-	-	-	0	0	0	-	-	-
NL	79 926	86 396	100 736	3 967	3 832	3 822	24 463	19 000	23 495	101	90	95	43 418	49 552	61 013	-	-	-	3 081	6 565	2 824	1 368	2 821	4 676	238	645	1 330	-	-	-
AT	53 310	60 514	64 123	-	-	-	2 084	2 893	6 905	36 894	41 727	38 966	8 668	8 857	10 940	1 016	1 496	999	2 593	2 419	1 817	1 097	1 594	2 141	0	51	366	-	-	-
PL	135 347	142 128	154 159	-	-	-	73 737	78 280	85 559	3 786	4 282	3 691	161	687	3 144	54 610	54 878	56 050	1 678	1 882	2 507	354	503	850	0	4	124	-	-	-
PT	31 382	43 274	45 105	-	-	-	11 570	15 046	14 858	10 702	7 619	10 147	0	8 074	11 689	-	-	-	8 048	11 009	5 699	934	1 238	1 804	17	123	496	33	80	84
SI	12 631	13 262	15 271	4 609	4 696	5 459	485	1 019	525	3 399	3 741	4 094	18	172	358	3 851	3 461	4 666	269	142	43	0	31	121	-	-	-	-	-	-
SK	24 795	27 743	30 561	12 135	13 117	17 026	2 484	3 657	3 342	4 609	4 776	4 207	2 186	3 085	2 421	2 379	2 716	2 339	958	338	737	-	-	-	-	-	-	-	-	-
FI	65 642	69 433	85 817	19 427	22 974	22 716	13 949	8 522	16 505	11 787	12 780	15 070	6 431	10 113	12 749	5 215	4 871	6 527	1 712	773	613	6 124	8 363	10 509	7	49	93	-	-	-
SE	143 571	155 171	151 727	73 156	73 188	77 486	2 696	2 242	1 010	59 453	71 713	60 178	722	398	749	-	-	-	4 130	3 094	1 955	2 225	2 646	7 943	72	371	679	-	-	-
UK	325 404	368 363	395 853	88 282	95 133	79 999	162 417	106 112	132 004	6 557	8 263	7 579	46 583	143 052	156 104	-	-	-	17 684	5 685	4 915	1 590	3 979	7 880	344	850	1 285	-	-	-
Acceding and applicant countries:																														
BG	38 133	38 248	41 620	15 335	15 814	16 815	2 758	3 074	3 950	1 468	2 982	3 363	2 556	2 010	1 494	14 129	13 205	14 952	1 626	927	822	0	29	0	-	-	-	-	-	-
HR	8 275	12 241	13 320	-	-	-	87	508	2 120	4 930	6 592	7 051	1 839	1 235	2 459	13	8	19	1 399	3 896	1 667	6	2	4	-	-	-	-	-	-
RO	55 136	50 710	56 482	0	5 198	5 548	1 403	0	734	13 046	18 290	16 513	16 566	8 437	10 462	18 226	14 684	20 732	5 786	3 855	2 199	0	0	3	-	-	-	-	-	-
TR	78 321	116 440	150 698	-	-	-	1 926	2 312	11 116	30 586	34 677	46 084	13 822	36 347	62 241	26 257	33 908	22 449	5 548	8 079	7 670	51	149	76	0	21	61	79	81	93

Sources: New Cronos, EUROSTAT

Production: Jens Dalsgaard

Figures written in *italic* are provisional

**Table 10: Gross generation of electrical energy in the European Union analysed by sources and Member States: 1994, 1999 and 2004**

As % of total gross electricity generation

	Total gross electricity generation						of which:																													
							Nuclear power plants			Coal-fired stations			Hydroelectric energy			Natural gas-fired power stations			Lignite-fired power stations			Oil-fired power stations			Biomass-fired power stations			Wind energy			Geothermal electrical energy					
	GWH						as % of total			as % of total			as % of total			as % of total			as % of total			as % of total			as % of total			as % of total								
	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004			
EU-25	2 561 306	2 849 363	3 179 132	32,9	32,4	31,0	24,4	20,3	20,4	12,9	12,2	10,6	8,5	15,6	18,9	10,9	9,2	9,1	8,2	6,9	4,5	0,9	1,3	2,1	0,1	0,5	1,4	0,1	0,2	0,2						
EU-15	2 268 389	2 532 975	2 820 466	34,9	34,2	32,3	22,2	17,8	18,0	13,8	13,0	11,3	9,2	16,9	20,4	8,8	7,3	7,4	8,6	7,2	4,7	0,9	1,4	2,3	0,1	0,6	1,6	0,2	0,2	0,2						
BE	72 236	84 521	85 441	56,2	58,0	55,4	23,5	11,8	10,7	1,6	1,8	1,9	11,5	22,8	25,1	-	-	-	2,2	1,2	2,0	0,7	1,0	1,8	0,0	0,0	0,1	-	-	-						
CZ	58 705	64 693	84 323	22,1	20,6	31,2	71,8	67,8	58,6	3,0	3,4	3,0	0,7	4,6	4,5	0,0	0,5	0,3	0,8	0,7	0,4	0,5	0,0	0,9	-	-	-	-	-	-						
DK	40 107	38 897	40 463	-	-	-	81,6	51,6	46,2	0,1	0,1	0,1	5,8	23,3	24,7	-	-	-	7,6	12,5	4,0	2,0	4,6	8,8	2,8	7,8	13,7	-	-	-						
DE	527 710	555 465	606 636	28,7	30,6	27,5	27,4	25,8	22,3	4,3	4,3	4,6	7,6	9,9	10,1	27,7	24,5	26,0	1,7	1,1	1,7	0,7	0,9	1,9	0,2	1,0	3,1	-	-	-						
EE	9 151	8 267	10 296	-	-	-	0,0	0,0	0,0	0,0	0,0	0,2	3,7	3,7	6,6	94,8	92,5	92,5	1,4	3,6	0,3	0,0	0,1	0,3	-	-	-	-	-	-						
GR	40 623	49 860	59 344	-	-	-	0,4	0,0	0,0	7,0	10,1	8,8	0,2	7,8	15,2	72,5	64,9	59,6	19,7	16,4	14,1	-	-	-	0,1	0,3	1,7	-	-	-						
ES	161 775	209 030	279 953	34,2	28,2	22,7	29,3	32,0	26,1	18,0	12,2	12,3	2,0	9,1	19,8	8,7	3,3	2,1	6,5	11,7	8,5	0,5	0,8	1,1	0,1	1,3	4,3	-	-	-						
FR	476 904	523 985	572 241	75,5	75,2	78,3	4,0	5,4	4,5	17,1	14,8	11,4	0,8	1,3	3,2	0,4	0,2	0,0	1,2	1,9	1,0	0,4	0,5	0,9	0,0	0,0	0,1	-	-	-						
IE	17 105	22 051	25 569	-	-	-	39,1	26,5	24,4	7,0	4,9	3,8	26,1	31,5	50,5	11,2	7,6	5,8	16,6	28,0	12,6	0,0	0,4	0,4	0,1	0,8	1,8	-	-	-						
IT	231 504	264 994	303 322	0	0	0	8,5	8,9	15,0	20,6	19,5	16,5	17,5	32,8	42,8	0,1	0,1	0,0	50,2	34,5	19,4	0,1	0,7	1,8	0,0	0,2	0,5	1,5	1,7	1,8						
CY	2 681	3 139	4 176	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100,0	100,0	100,0	-	-	-	0,0	0,0	0,0	-	-	-						
LV	4 440	4 110	4 689	-	-	-	0,0	0,0	0,0	74,4	67,1	66,3	7,0	23,3	30,6	1,8	0,9	0,0	16,8	8,7	1,3	0,0	0,0	0,8	0,0	0,0	1,0	-	-	-						
LT	10 021	13 535	19 273	76,9	72,9	78,4	0,0	0,0	0,0	7,2	6,4	4,9	3,3	7,4	14,0	0,0	0,0	0,0	12,4	12,9	1,9	0,0	0,0	0,0	-	-	-	-	-	-						
LU	1 190	1 021	4 136	-	-	-	-	-	-	57,8	73,2	20,8	3,9	20,0	76,2	-	-	-	1,2	0,0	0,0	4,2	4,9	2,1	0,0	1,8	0,6	-	-	-						
HU	33 605	37 719	33 702	41,8	38,9	35,4	0,0	0,0	1,3	0,5	0,5	0,6	14,7	20,7	34,6	26,0	25,2	23,0	16,4	14,1	2,5	0,0	0,0	2,2	-	-	-	-	-	-						
MT	1 541	1 792	2 216	-	-	-	23,3	0,0	0,0	-	-	-	-	-	-	-	-	-	76,7	100,0	100,0	-	-	-	0,0	0,0	0,0	-	-	-						
NL	79 926	86 396	100 736	5,0	4,4	3,8	30,6	22,0	23,3	0,1	0,1	0,1	54,3	57,4	60,6	-	-	-	3,9	7,6	2,8	1,7	3,3	4,6	0,3	0,7	1,3	-	-	-						
AT	53 310	60 514	64 123	-	-	-	3,9	4,8	10,8	69,2	69,0	60,8	16,3	14,6	17,1	1,9	2,5	1,6	4,9	4,0	2,8	2,1	2,6	3,3	0,0	0,1	0,6	-	-	-						
PL	135 347	142 128	154 159	-	-	-	54,5	55,1	55,5	2,8	3,0	2,4	0,1	0,5	2,0	40,3	38,6	36,4	1,2	1,3	1,6	0,3	0,4	0,6	0,0	0,0	0,1	-	-	-						
PT	31 382	43 274	45 105	-	-	-	36,9	34,8	32,9	34,1	17,6	22,5	0,0	18,7	25,9	-	-	-	25,6	25,4	12,6	3,0	2,9	4,0	0,1	0,3	1,1	0,1	0,2	0,2						
SI	12 631	13 262	15 271	36,5	35,4	35,7	3,8	7,7	3,4	26,9	28,2	26,8	0,1	1,3	2,3	30,5	26,1	30,6	2,1	1,1	0,3	0,0	0,2	0,8	-	-	-	-	-	-						
SK	24 795	27 743	30 561	48,9	47,3	55,7	10,0	13,2	10,9	18,6	17,2	13,8	8,8	11,1	7,9	9,6	9,8	7,7	3,9	1,2	2,4	-	-	-	-	-	-	-	-	-						
FI	65 642	69 433	85 817	29,6	33,1	26,5	21,3	12,3	19,2	18,0	18,4	17,6	9,8	14,6	14,9	7,9	7,0	7,6	2,6	1,1	0,7	9,3	12,0	12,2	0,0	0,1	0,1	-	-	-						
SE	143 571	155 171	151 727	51,0	47,2	51,1	1,9	1,4	0,7	41,4	46,2	39,7	0,5	0,3	0,5	-	-	-	2,9	2,0	1,3	1,5	1,7	5,2	0,1	0,2	0,4	-	-	-						
UK	325 404	368 363	395 853	27,1	25,8	20,2	49,9	28,8	33,3	2,0	2,2	1,9	14,3	38,8	39,4	-	-	-	5,4	1,5	1,2	0,5	1,1	2,0	0,1	0,2	0,3	-	-	-						
Acceding and applicant countries:																																				
BG	38 133	38 248	41 620	40,2	41,3	40,4	7,2	8,0	9,5	3,8	7,8	8,1	6,7	5,3	3,6	37,1	34,5	35,9	4,3	2,4	2,0	0,0	0,1	0,0	-	-	-	-	-	-						
HR	8 275	12 241	13 320	-	-	-	1,1	4,1	15,9	59,6	53,9	52,9	22,2	10,1	18,5	0,2	0,1	0,1	16,9	31,8	12,5	0,1	0,0	0,0	-	-	-	-	-	-						
RO	55 136	50 710	56 482	0,0	10,3	9,8	2,5	0,0	1,3	23,7	36,1	29,2	30,0	16,6	18,5	33,1	29,0	36,7	10,5	7,6	3,9	0,0	0,0	0,0	-	-	-	-	-	-						
TR	78 321	116 440	150 698	-	-	-	2,5	2,0	7,4	39,1	29,8	30,6	17,6	31,2	41,3	33,5	29,1	14,9	7,1	6,9	5,1	0,1	0,1	0,1	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,1	0,1			

Sources: New Cronos, EUROSTAT

Production: Jens Dalsgaard

Figures written in *italic* are provisional

**Table 11: Gross electricity generation by fuel in the EU25, 1990-2004**

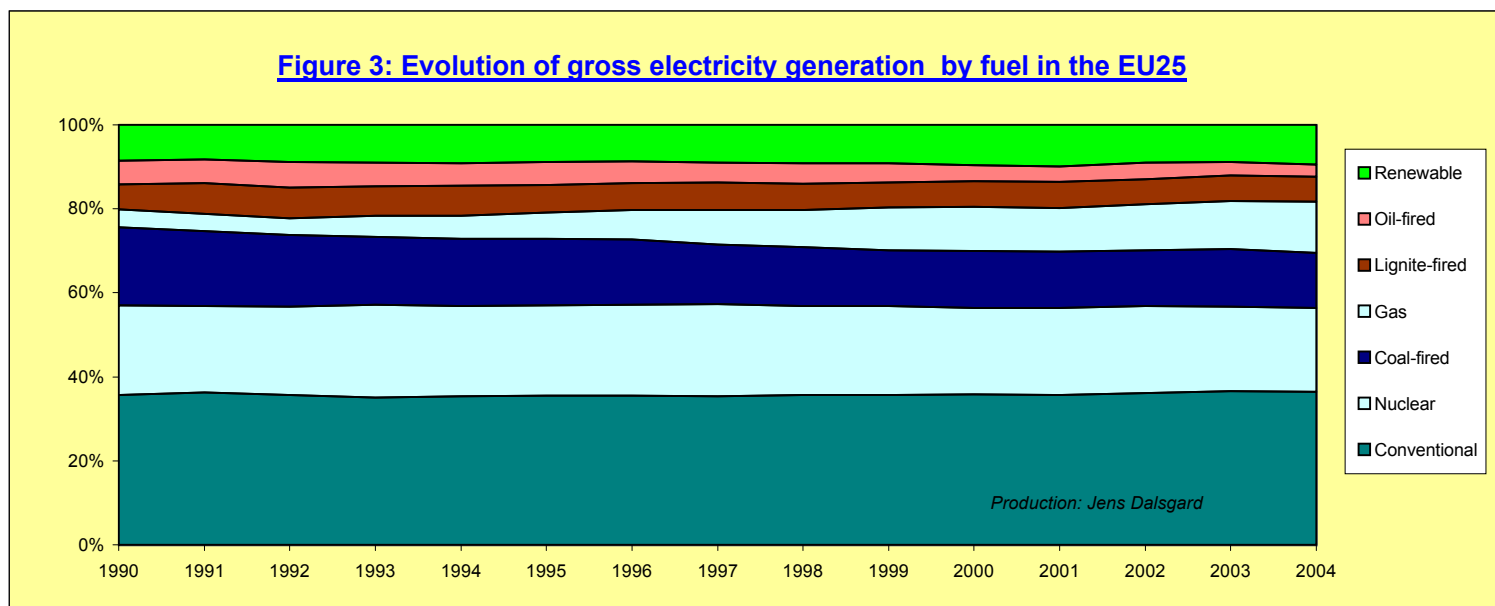
In GWh

	Total gross electricity generation	of which:										
		Conventional thermal power plants	Nuclear power plants	Coal-fired stations	Natural gas-fired power stations	Lignite-fired power stations	Oil-fired power stations	Renewable	of which:			
									Hydro power plants	Biomass-fired power stations	Wind energy	Geother-mal power plants
1990	2 380 776	1 304 674	780 208	675 976	158 321	214 048	206 596	313 103	291 892	17 209	778	3 224
1991	2 536 101	1 424 902	806 849	698 129	161 581	287 166	224 290	322 503	300 067	18 153	1 096	3 187
1992	2 526 777	1 384 580	817 428	661 174	155 298	281 037	237 925	342 930	319 753	18 161	1 552	3 464
1993	2 522 951	1 346 637	847 936	620 288	191 268	273 971	210 936	348 160	322 350	19 782	2 357	3 671
1994	2 561 306	1 381 305	843 429	623 788	217 022	278 101	208 900	358 554	330 148	21 982	2 974	3 450
1995	2 631 274	1 432 206	864 560	640 721	248 404	268 399	217 105	358 731	326 961	24 223	4 069	3 478
1996	2 726 546	1 481 043	908 080	644 537	292 223	272 058	214 276	363 379	328 765	25 956	4 846	3 812
1997	2 740 218	1 481 148	914 195	597 918	344 918	268 360	202 881	373 710	333 589	28 835	7 330	3 956
1998	2 813 704	1 540 077	911 299	608 519	381 313	268 580	209 554	393 966	346 779	31 638	11 277	4 272
1999	2 849 363	1 559 875	922 937	578 320	444 497	262 955	196 840	402 231	347 852	35 680	14 216	4 483
2000	2 928 506	1 615 899	921 359	615 638	469 890	274 124	176 674	430 734	364 214	39 486	22 249	4 785
2001	3 010 773	1 640 592	953 759	612 361	477 161	285 548	168 575	457 554	384 835	41 132	26 975	4 612
2002	3 019 626	1 685 430	964 461	619 299	512 481	278 984	183 853	417 551	329 272	47 816	35 705	4 758
2003	3 117 178	1 771 964	973 674	666 227	552 373	295 820	157 910	428 621	321 753	57 081	44 356	5 431
2004	3 179 132	1 791 824	986 074	647 866	601 043	288 845	142 774	469 142	337 192	67 908	58 521	5 521

Sources: New Cronos, EUROSTAT

Production: Jens Dalsgaard

Figures written in *italic* are provisional



**Table 12: Gross renewable electrical energy generation as % of total gross generation  
of electrical energy: 1994, 1999 and 2004**

**By source**

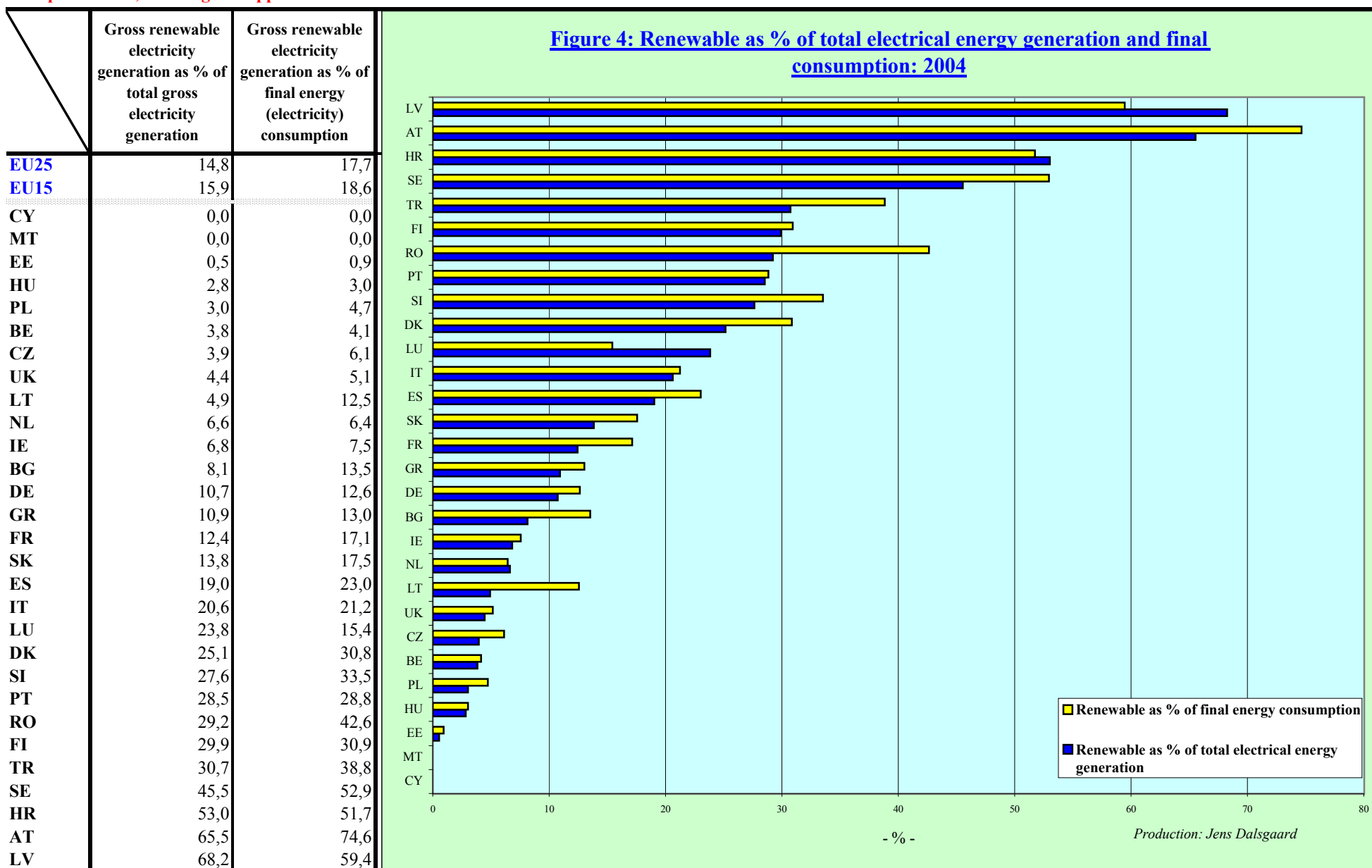
	Renewable as % of total gross electrical energy generation			of which:											
				Gross electricity generation - Hydro power plants			Gross electricity generation - Biomass- fired power stations			Gross electricity generation - Wind turbines			Gross electricity generation - Geothermal power plants		
	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004	1994	1999	2004
<b>EU-25</b>	14,0	14,1	14,8	92,1	86,5	71,9	6,1	8,9	14,5	0,8	3,5	12,5	1,0	1,1	1,2
<b>EU-15</b>	15,0	15,1	15,9	91,8	85,9	71,1	6,3	9,2	14,6	0,9	3,7	13,0	1,0	1,2	1,2
<b>BE</b>	2,4	2,8	3,8	69,2	63,9	49,1	30,3	35,5	46,9	0,5	0,6	3,9	-	-	-
<b>CZ</b>	3,6	3,4	3,9	85,2	100,0	77,6	14,8	0,0	22,4	-	-	-	-	-	-
<b>DK</b>	4,9	12,5	25,1	1,7	0,6	0,3	40,7	37,0	34,9	57,6	62,3	64,8	-	-	-
<b>DE</b>	5,1	6,2	10,7	83,2	68,7	43,1	13,4	15,3	17,8	3,4	16,1	39,1	-	-	-
<b>EE</b>	0,0	0,2	0,5	100,0	25,0	42,3	0,0	75,0	57,7	-	-	-	-	-	-
<b>GR</b>	7,1	10,5	10,9	98,7	96,9	80,7	0,0	0,0	1,9	1,3	3,1	17,4	-	-	-
<b>ES</b>	18,6	14,3	19,0	96,9	84,9	64,9	2,5	5,9	5,7	0,6	9,2	29,4	-	-	-
<b>FR</b>	17,5	15,4	12,4	97,7	96,4	91,9	2,3	3,6	7,3	0,0	0,0	0,8	-	-	-
<b>IE</b>	7,1	6,2	6,8	98,5	79,7	56,8	0,0	6,7	5,3	1,5	13,7	37,8	-	-	-
<b>IT</b>	22,2	22,0	20,6	92,8	88,6	79,8	0,6	3,1	8,6	0,0	0,7	3,0	6,6	7,5	8,7
<b>CY</b>	0,0	0,0	0,0	-	-	-	-	-	-	-	-	-	-	-	-
<b>LV</b>	74,4	67,1	68,2	100,0	99,9	97,3	0,0	0,0	1,2	0,0	0,1	1,5	-	-	-
<b>LT</b>	7,2	6,4	4,9	100,0	100,0	99,4	0,0	0,0	0,6	-	-	-	-	-	-
<b>LU</b>	62,0	79,8	23,8	93,2	91,7	87,4	6,8	6,1	8,6	0,0	2,2	4,0	-	-	-
<b>HU</b>	0,5	0,5	2,8	100,0	100,0	21,4	0,0	0,0	78,6	-	-	-	-	-	-
<b>MT</b>	0,0	0,0	0,0	-	-	-	-	-	-	-	-	-	-	-	-
<b>NL</b>	2,1	4,1	6,6	5,9	2,5	1,4	80,1	79,3	70,4	13,9	18,1	28,1	-	-	-
<b>AT</b>	71,3	71,7	65,5	97,1	96,2	92,7	2,9	3,7	5,1	0,0	0,1	2,2	-	-	-
<b>PL</b>	3,1	3,4	3,0	91,4	89,4	78,8	8,6	10,5	18,2	0,0	0,1	3,0	-	-	-
<b>PT</b>	37,2	20,9	28,5	91,6	84,1	79,0	8,0	13,7	14,0	0,1	1,4	6,3	0,3	0,9	0,7
<b>SI</b>	26,9	28,4	27,6	100,0	99,2	97,1	0,0	0,8	2,9	-	-	-	-	-	-
<b>SK</b>	18,6	17,2	13,8	100,0	100,0	100,0	-	-	-	-	-	-	-	-	-
<b>FI</b>	27,3	30,5	29,9	65,8	60,3	58,6	34,2	39,5	40,9	0,0	0,2	0,5	-	-	-
<b>SE</b>	43,0	48,2	45,5	96,3	96,0	87,3	3,6	3,5	11,5	0,1	0,5	1,2	-	-	-
<b>UK</b>	2,6	3,6	4,4	77,2	63,1	43,6	18,7	30,4	45,3	4,1	6,5	11,1	-	-	-
<b>Acceding and applicant countries:</b>															
<b>BG</b>	3,8	7,9	8,1	100,0	99,0	100,0	0,0	1,0	0,0	-	-	-	-	-	-
<b>HR</b>	59,6	53,9	53,0	99,9	100,0	99,9	0,1	0,0	0,1	-	-	-	-	-	-
<b>RO</b>	23,7	36,1	29,2	100,0	100,0	100,0	0,0	0,0	0,0	-	-	-	-	-	-
<b>TR</b>	39,2	30,0	30,7	99,6	99,3	99,5	0,2	0,4	0,2	0,0	0,1	0,1	0,3	0,2	0,2

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

**Table 13/ Figure 4: Renewable as % of 1) Total gross electrical energy generation and as % of 2) Final energy consumption: 2004**

**European Union, acceding and applicant countries**



Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

**Table 14: Biomass and wastes as share of Primary energy production: 1994, 1999  
and 2004 in the EU and applicant countries**

- 1000 toe -

	All products			Biomass and wastes			Biomass/wastes as % of All products		
	1994	1999	2004	1994	1999	2004	1994	1999	2004
<b>EU-25</b>	879 988	903 823	882 300	47 717	56 226	71 547	5,4	6,2	8,1
<b>EU-15</b>	723 083	765 626	741 492	40 644	48 781	61 471	5,6	6,4	8,3
<b>BE</b>	10 706	13 274	13 159	469	597	913	4,4	4,5	6,9
<b>CZ</b>	32 482	27 612	32 260	582	589	1 324	1,8	2,1	4,1
<b>DK</b>	15 023	23 690	30 868	1 345	1 633	2 154	9,0	6,9	7,0
<b>DE</b>	141 200	134 535	135 266	4 427	6 384	9 367	3,1	4,7	6,9
<b>EE</b>	3 476	2 976	4 031	507	509	685	14,6	17,1	17,0
<b>GR</b>	9 146	9 463	10 268	894	913	953	9,8	9,6	9,3
<b>ES</b>	31 903	30 305	32 399	3 545	3 894	4 853	11,1	12,8	15,0
<b>FR</b>	122 391	126 347	135 591	10 806	11 232	12 007	8,8	8,9	8,9
<b>IE</b>	3 569	2 611	1 902	103	167	214	2,9	6,4	11,3
<b>IT</b>	29 616	28 963	28 036	1 077	1 624	3 145	3,6	5,6	11,2
<b>CY</b>	12	44	97	12	9	5	100,0	20,5	5,2
<b>LV</b>	1 329	1 764	2 141	938	1 456	1 866	70,6	82,5	87,2
<b>LT</b>	2 580	3 459	4 959	438	621	706	17,0	18,0	14,2
<b>LU</b>	51	46	73	41	36	59	80,4	78,3	80,8
<b>HU</b>	12 934	11 492	10 132	464	384	860	3,6	3,3	8,5
<b>MT</b>	-	-	-	-	-	-	-	-	-
<b>NL</b>	66 111	59 209	67 860	826	1 476	2 175	1,2	2,5	3,2
<b>AT</b>	8 174	9 255	9 526	2 449	2 910	3 452	30,0	31,4	36,2
<b>PL</b>	96 086	82 829	77 946	3 698	3 572	4 126	3,8	4,3	5,3
<b>PT</b>	2 819	2 656	3 894	1 789	1 933	2 877	63,5	72,8	73,9
<b>SI</b>	2 968	2 861	3 435	263	233	470	8,9	8,1	13,7
<b>SK</b>	5 037	5 159	5 808	171	73	35	3,4	1,4	0,6
<b>FI</b>	12 989	15 153	15 502	4 804	6 158	7 556	37,0	40,6	48,7
<b>SE</b>	30 907	33 257	34 500	6 672	7 929	8 883	21,6	23,8	25,7
<b>UK</b>	238 480	276 860	222 647	1 396	1 897	2 863	0,6	0,7	1,3
<b>Acceding and applicant countries:</b>									
<b>BG</b>	9 324	8 968	10 168	171	406	737	1,8	4,5	7,2
<b>HR</b>	4 031	3 570	3 852	259	333	379	6,4	9,3	9,8
<b>RO</b>	31 934	28 010	28 414	1 153	2 820	3 160	3,6	10,1	11,1
<b>TR</b>	26 347	27 526	24 193	7 139	6 798	5 550	27,1	24,7	22,9

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

**Table 15: World primary energy supply and total production of energy by region**

- Mtoe -

	Total primary energy supply (TPES)								Total production of Energy							
	1980	1985	1990	1995	2000	2002	2003	2004	1980	1985	1990	1995	2000	2002	2003	2004
<b>World</b>	7 184,7	7 709,9	8 620,4	9 148,9	9 953,5	10 230,7	10 579,0	11 223,0	7 342,9	7 745,5	8 785,6	9 293,2	10 049,6	10 305,7	10 709,0	
<b>EU15</b>	1 214,6	1 258,7	1 348,9	1 390,3	1 498,1	1 520,9	1 552,0	1 579,5	584,6	732,6	706,7	738,0	756,0	753,5	744,2	741,49
<b>EU25</b>				1 599,6	1 694,1	1 723,9	1 761,3	1 789,6			877,1	897,2	892,0	894,0	886,5	882,30
<b>NAFTA</b>	2 103,6	2 086,5	2 258,9	2 454,2	2 705,4	2 697,8	2 701,4	2 760,4	1 910,0	2 005,5	2 118,5	2 214,2	2 276,1	2 281,9	2 261,0	2 292,40
<b>USA</b>	1 811,7	1 781,7	1 927,6	2 088,5	2 303,8	2 290,4	2 280,8	2 325,9	1 553,3	1 570,2	1 650,4	1 662,3	1 675,1	1 666,6	1 632,7	1 641,00
<b>Central and Eastern Europe</b>	351,7	369,3	338,2	289,2	268,7	274,6	275,3	259,6	263,9	285,7	235,6	215,0	188,3	190,9	188,9	
<b>CIS and Baltic*</b>	1 131,9	1 272,4	1 347,8	970,5	921,3	930,5	962,0	979,0	1 357,8	1 512,9	1 624,6	1 208,8	1 261,6	1 349,2	1 441,0	
<b>Baltic</b>			30,4	17,3	15,3	17,4	18,2	18,9				5,0	7,4	10,0	10,9	
<b>Russia</b>			906,7	628,4	614,0	617,8	639,7	641,5				954,0	966,5	1 034,5	1 106,9	
<b>Africa</b>	281,8	345,9	391,8	448,5	507,8	539,9	559,0	586,0	555,6	592,6	692,4	771,5	889,7	906,7	971,0	
<b>Middle East</b>	133,3	186,5	229,6	317,0	386,5	431,3	446,0	480,0	990,2	583,2	915,7	1 114,1	1 303,1	1 250,8	1 346,0	
<b>Asia (excluding Japan)</b>	1 107,2	1 313,4	1 635,6	2 021,8	2 274,3	2 428,9	2 650,0	2 916,0	1 128,6	1 370,5	1 641,7	1 960,2	2 095,4	2 261,2	2 465,0	
<b>China</b>	603,9	711,6	881,1	1 080,4	1 157,9	1 245,0	1 426,0	1 626,0	615,5	755,8	902,7	1 085,2	1 107,7	1 220,8	1 084,0	
<b>Japan</b>	346,5	365,9	445,3	495,4	528,6	520,7	517,1	533,2	43,3	67,7	73,3	96,7	108,9	98,1	84,6	
<b>Latin America</b>	291,9	306,6	337,8	397,7	452,5	454,8	464,0	485,0	327,7	354,9	419,7	512,5	614,3	628,2	621,0	

Sources: 2001 - Annual Energy Review, January 2002, Commission

External Energy Balances 2006, IEA

Energy Balances of non-OECD countries, 2001-2002, IEA

Electricity Information (2005 edition), IEA

New Cronos, EUROSTAT

Key World Energy Indicators 2006, IEA

Figures written in *italic* are provisional

Production: Jens Dalsgaard

\* Former USSR

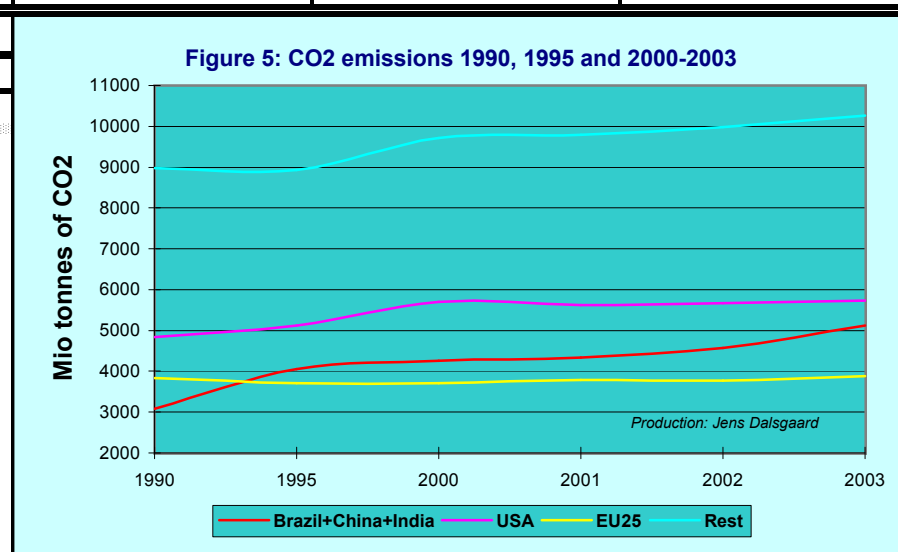


**Table 16: Total and per capita greenhouse gas emissions by region in CO<sub>2</sub> equivalents (Mt)**  
By regions and selected countries

- Mt -

	CO <sub>2</sub> (Carbon dioxide)(1)									CH <sub>4</sub> (Methane)				N <sub>2</sub> O (Nitrogen oxides)				HFCs, PFCs and SF <sub>6</sub> (3)			
	1985	1990	1998	1999	2000	2001	2002	2003	2004	1990	1995	2000	2004	1990	1995	2000	2004	1990	1995	2000	2004
<b>World</b>	19 352	21 210	22 916	23 236	23 842	24 002	24 102	24 983													
<b>EU15</b>	3 049	3 120	3 166	3 131	3 154	3 227	3 221	3 317		429	404	359	319	414	393	355	340	56	67	64	66
<b>EU25</b>		3 830			3 714	3 790	3 768	3 884		543	497	442	392	482	442	411	404	58	69	66	70
<b>NAFTA</b>	5 282	5 571	6 285	6 390	6 579	6 569	6 549	6 656													
<b>USA</b>	4 613	4 852	5 440	5 536	5 702	5 689	5 652	5 729													
<b>Central and Eastern Europe (2)</b>	1 015	873	691	648	640	656	624	648													
<b>CIS and Baltic</b>	3 440	3 544	2 235	2 267	2 287	2 307	2 232	2 285													
<b>Russia</b>			1 449	1 498	1 518	1 524	1 503	1 527													
<b>Africa</b>	545	601	717	745	756	766	743	763													
<b>Middle East</b>	486	571	854	892	983	982	1 093	1 107													
<b>Asia (excluding Japan)</b>	2 808	3 708	5 121	5 229	5 406	5 453	5 528	6 102													
<b>China</b>	1 872	2 421	3 163	3 167	3 216	3 167	3 271	3 760													
<b>Japan</b>	895	1 049	1 135	1 159	1 179	1 183	1 207	1 201													
<b>Latin America</b>	555	626	859	865	873	863	845	850													

	kg of CO <sub>2</sub> /capita								
	1985	1990	1998	1999	2000	2001	2002	2003	2004
<b>World</b>	4 030	4 070	3 920	3 900	3 961	3 933	3 890	3 986	
<b>EU15</b>	8 506	8 578	8 399	8 294	8 382	8 564	8 412	8 604	
<b>EU25</b>							8 242	8 449	
<b>NAFTA</b>	15 620	15 480	16 020	16 040	16 300	15 787	15 619	15 646	
<b>USA</b>	19 340	19 390	20 350	20 460	20 706	19 899	19 663	19 679	
<b>Central and Eastern Europe (2)</b>	10 200	8 500	6 700	6 814	6 741	6 909	6 619	6 932	
<b>CIS and Baltic</b>	12 370	12 040	7 670	7 850	7 884	7 981	7 784	7 990	
<b>Russia</b>			9 810	10 170	10 422	10 529	10 433	10 645	
<b>Africa</b>	1 010	970	950	940	951	943	893	897	
<b>Middle East</b>	4 410	4 480	5 430	5 460	5 949	5 813	6 326	6 254	
<b>Asia (excluding Japan)</b>	1 135	1 395	1 673	1 654	1 704	1 697	1 691	1 842	
<b>China</b>	1 780	2 130	2 470	2 420	2 534	2 477	2 554	2 903	
<b>Japan</b>	7 410	8 490	8 970	9 140	9 289	9 297	9 470	9 414	
<b>Latin America</b>	1 720	1 760	2 150	2 110	2 100	2 046	1 985	1 968	



Sources: Annual European Community Greenhouse Gas Inventory 1990-2004 and Inventory Report 2006, Technical Report No. 6/2006, European Environment Agency

CO<sub>2</sub> Emissions from Fuel Combustion 1971-2003 (2005 edition), IEA

Key world energy statistics 2006, IEA

(1) from fuel combustion only. Reference Approach

(2) Czech Rep., Hungary, Poland, Slovak Rep., Bulgaria and Romania

(3) Hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride

Production: Jens Dalsgaard

**Table 17: World and regional energy indicators, 2004**

	TPES/capita	TPES/GDP (PPP) World = 100	Elec. Cons/capita	CO2/TPES	CO2/capita	CO2/ GDP (PPP) World = 100
	toe/capita	Index	kWh/capita	t CO2/toe	t CO2/capita	Index
<b>World</b>	1,77	100,0	2 516	2,37	4,18	100,0
<b>EU15</b>	3,99	72,9	6 915	2,15	8,58	64,6
<b>EU25</b>	3,90	77,6	6 460	2,17	8,44	69,0
<b>NAFTA</b>	6,42	104,2	10 833	2,44	15,64	104,6
<b>USA</b>	7,91	104,8	13 338	2,49	19,73	105,9
<b>Non-OECD Europe</b>	1,92	119,0	3 057	2,54	4,88	125,5
<b>Russia</b>	4,46	233,3	5 642	2,38	10,63	229,4
<b>Africa</b>	0,67	138,1	547	1,39	0,93	80,4
<b>Middle East</b>	2,64	176,2	2 881	2,47	6,51	180,4
<b>Asia (excluding Japan)</b>	0,63	90,5	617	1,94	1,22	72,5
<b>China</b>	1,25	109,5	1 607	2,93	3,66	129,4
<b>Japan</b>	4,18	76,2	8 076	2,28	9,52	68,6
<b>Latin America</b>	1,10	76,2	1 645	1,87	2,05	56,9

Source: Key World Energy Indicators 2006, IEA

Production: Jens Dalsgaard

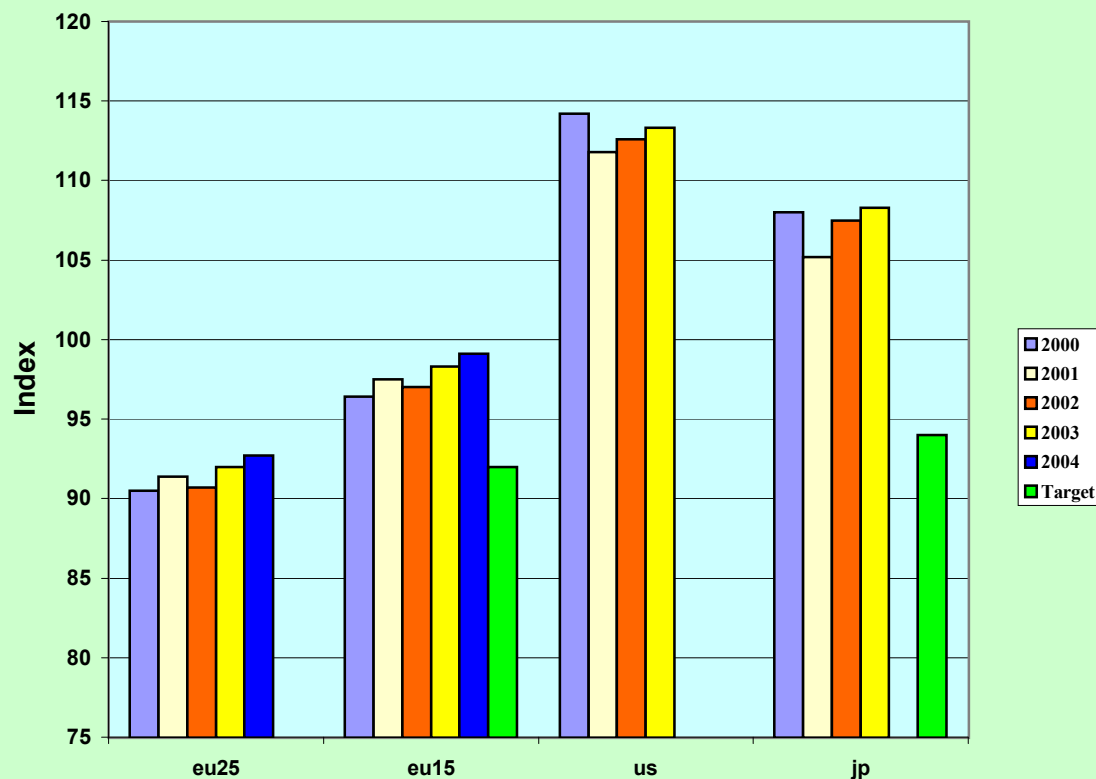
**TPES** = Total Primary Energy Supply

**Table 18: Greenhouse Gas Emissions (in CO2 equivalents) of EU, USA and Japan indexed on base year =100**

**Kyoto Protocol targets**

	2000	2001	2002	2003	2004	Target
eu25	90,5	91,4	90,7	92,0	92,7	:
eu15	96,4	97,5	97,0	98,3	99,1	<u>92,0</u>
be	100,6	99,9	99,0	100,6	100,7	92,5
cz	76,8	77,0	74,3	75,7	74,9	92,0
dk	98,1	100,2	99,1	106,3	98,2	<u>79,0</u>
de	81,4	82,3	81,3	81,5	82,5	<u>79,0</u>
ee	45,4	44,7	44,9	49,2	50,0	92,0
gr	118,5	119,6	119,6	123,2	123,9	<b>125,0</b>
es	133,0	132,6	139,3	140,6	147,9	<b>115,0</b>
fr	98,7	99,3	97,5	98,1	99,2	100,0
ie	127,8	131,1	128,6	125,2	122,7	<b>113,0</b>
it	108,0	109,0	108,7	111,6	112,3	93,5
cy	141,6	140,7	145,1	152,8	148,2	:
lv	39,2	42,3	41,9	41,5	41,5	92,0
lt	40,9	40,0	38,5	33,8	39,9	92,0
lu	74,7	76,9	84,9	88,5	100,3	72,0
hu	66,3	68,5	66,1	68,1	68,0	94,0
mt	129,0	124,4	129,7	129,1	145,9	:
nl	100,4	101,1	100,2	100,8	101,6	94,0
at	103,2	108,1	110,1	116,6	115,7	87,0
pl	68,3	67,7	65,5	67,9	68,4	94,0
pt	135,0	136,8	144,3	136,7	141,0	<b>127,0</b>
si	94,0	98,6	99,3	98,1	99,2	92,0
sk	66,6	73,6	72,8	71,8	69,7	92,0
fi	99,7	107,6	109,7	121,5	114,5	100,0
se	93,0	94,4	96,1	97,6	96,4	<b>104,0</b>
uk	86,7	88,3	85,7	86,7	85,9	87,5
bg	47,5	48,0	45,9	50,0		92,0
hr	81,6	85,4	89,4	94,0		95,0
ro	48,1	49,4	51,3	53,9		92,0
us	114,2	111,8	112,6	113,3		:
jp	108,0	105,2	107,5	108,3		<u>94,0</u>

**Figure 6: GHG indexed on base year = 100**  
**Kyoto protocol targets**



Production: Jens Dalsgaard

Sources: Annual European Community Greenhouse Gas Inventory 1990-2004 and Inventory Report 2006, Technical Report No. 6/2006, European Environment Agency

New Cronos, EUROSTAT

Note: Cyprus, Malta and USA do not have Kyoto targets

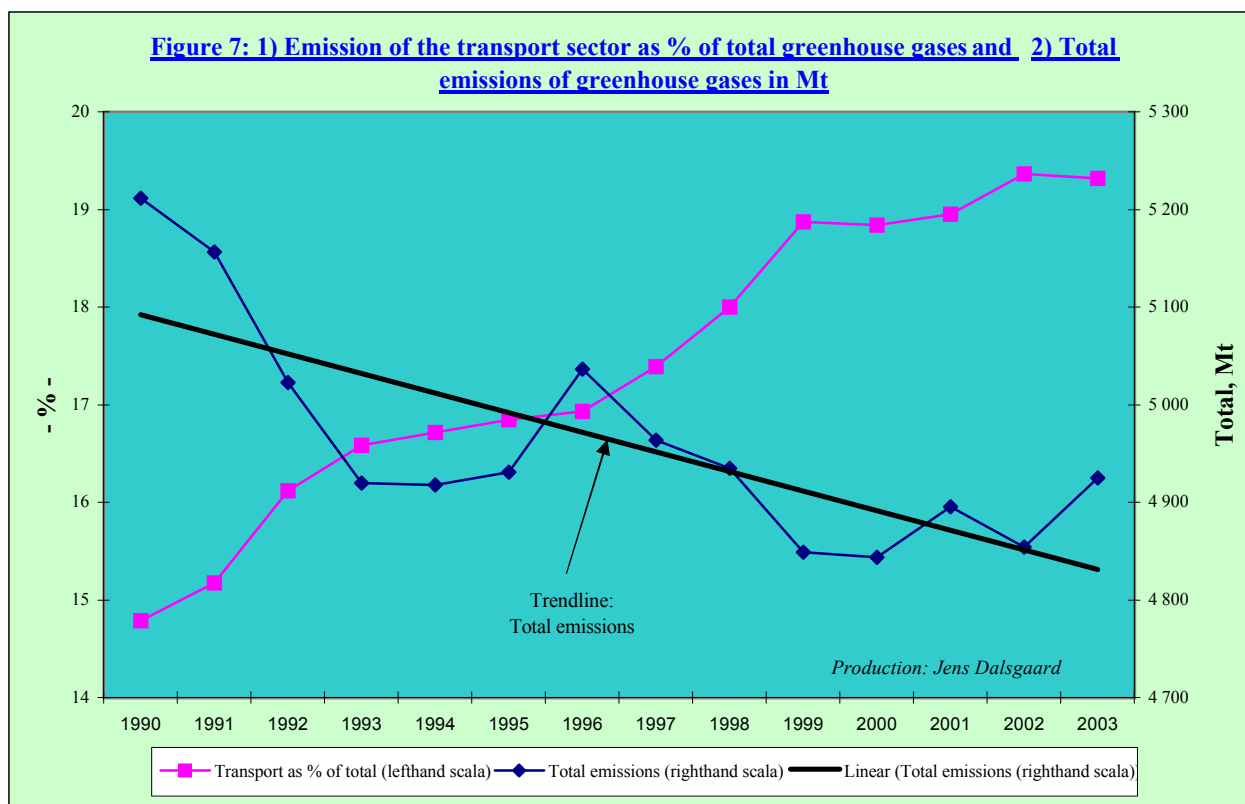
Production: Jens Dalsgaard

**Table 19: Air emissions in the European Union (25) of greenhouse gases by sector**  
Global warming potential, CO<sub>2</sub> equivalent. 1990-2003

	Total National emissions	of which:							
		Energy industries	Manufacturing industries and construction	Transport	Agriculture	Energy industries	Manufacturing industries and construction	Transport	Agriculture
	Mt	Mt				as % of Total national emissions			
1990	5 211,8	1 601,7	797,8	770,5	547,0	30,7	15,3	14,8	10,5
1991	5 156,2	1 591,9	753,9	782,5	524,1	30,9	14,6	15,2	10,2
1992	5 022,7	1 528,9	721,1	809,6	509,1	30,4	14,4	16,1	10,1
1993	4 919,4	1 452,8	713,0	816,0	493,0	29,5	14,5	16,6	10,0
1994	4 917,5	1 452,0	740,2	822,0	494,0	29,5	15,1	16,7	10,0
1995	4 930,6	1 448,7	739,6	830,8	494,1	29,4	15,0	16,8	10,0
1996	5 036,1	1 471,7	736,9	852,8	495,7	29,2	14,6	16,9	9,8
1997	4 963,7	1 434,8	743,8	863,4	496,8	28,9	15,0	17,4	10,0
1998	4 934,6	1 456,8	714,5	888,2	493,2	29,5	14,5	18,0	10,0
1999	4 848,7	1 418,5	694,6	915,0	495,5	29,3	14,3	18,9	10,2
2000	4 843,5	1 428,0	713,4	912,4	491,4	29,5	14,7	18,8	10,1
2001	4 895,7	1 455,3	705,9	927,8	482,6	29,7	14,4	19,0	9,9
2002	4 854,0	1 484,5	681,4	939,8	475,9	30,6	14,0	19,4	9,8
2003	4 925,0	1 521,3	689,1	951,4	467,8	30,9	14,0	19,3	9,5

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard



**Table 20: Gross domestic products and gross inland energy consumption  
in the European Union, 1995-2005**

Millions of euro (at 1995 prices and exchange rates)/thousands tons of oil equivalent

	Gross domestic product at market prices		Gross inland consumption	
	EU25	EU15	EU25	EU15
1995	6 948 871	6 714 359	1 579 270	1 367 493
1996	7 071 956	6 825 700	1 636 237	1 417 529
1997	7 263 297	7 004 654	1 626 533	1 409 792
1998	7 478 275	7 209 326	1 647 702	1 439 081
1999	7 705 620	7 426 993	1 642 912	1 441 926
2000	8 006 079	7 715 352	1 654 493	1 455 604
2001	8 162 272	7 864 218	1 693 795	1 490 424
2002	8 256 908	7 950 561	1 686 661	1 483 188
2003	8 361 839	8 041 358	1 727 100	1 517 266
2004	8 557 434	8 218 901	1 746 801	1 536 502
2005	8 701 178	8 345 413		
Av. annual growth rates	1,7%	1,5%	1,1%	1,3%
Estimations 2030				
Av. annual growth: 1%			2 237 198	
Av. annual growth: 2%			3 158 366	
Av. annual growth: 3%			4 443 849	

Source: New Cronos, EUROSTAT

Production: Jens Dalsgaard

**Figure 8: Gross Domestic Products (GDP) and Gross Inland energy Consumption (GIC) of EU25, 1995-2005**

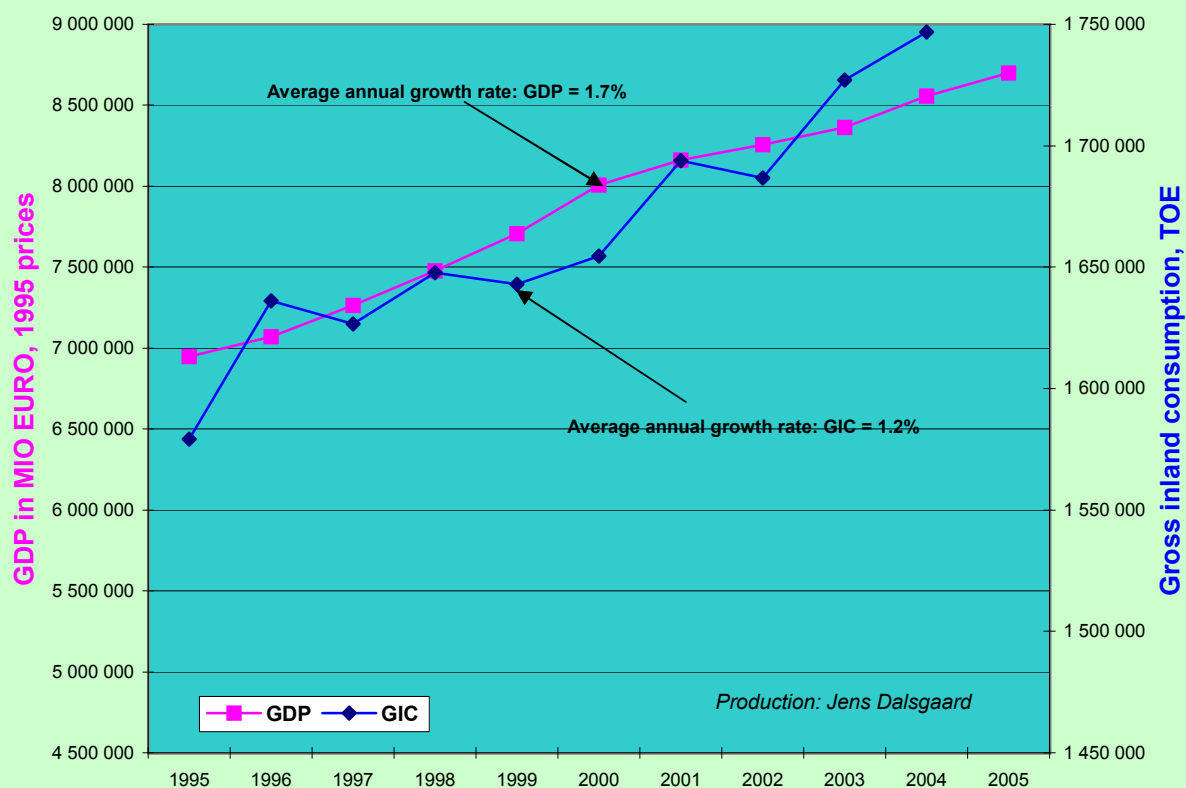


Table 21: Global installed wind energy capacity by countries at end of period

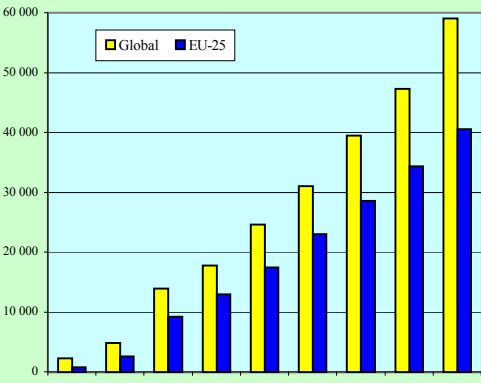
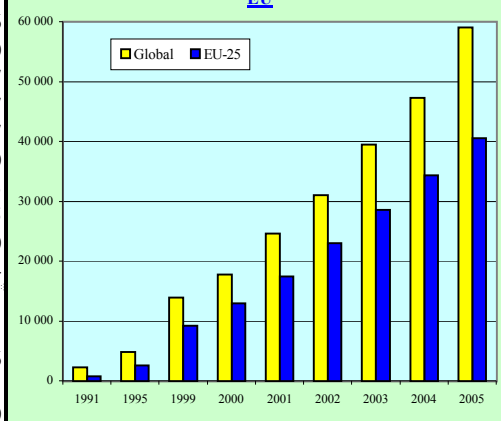
	Installed capacity (Megawatt)										Gross electricity generated 2005 (GWh/ year)		Average wind farm capacity factors 2004 (%) **
	1991	1995	1999	2000	2001	2002	2003	2004	2005	Target			
										2010	OR (Year)		
Global	2 223	4 821	13 932	17 740	24 598	31 064	39 431	47 317	59 085	160 000	Y 2012		
of which:													
North America		1 624	2 573	2 752	4 462	4 955	6 695	7 184	9 854			17 060	
of which:													
USA		1 591	2 445	2 566	4 260	4 685	6 374	6 740	9 171	(1)	Y 2020	15 347	24,8
Canada			126	139	214	270	321	444	683	8 000	Y 2015	1 698	35,0
Asia Pacific		630	1 426	1 798	2 349	2 863	3 642	5 234	7 568				
of which:													
India		576	1 035	1 220	1 456	1 702	2 125	3 000	4 430				
China		44	262	352	406	473	567	764	1 262	5 000	2010		
Japan		0	68	142	357	486	687	874	1 000	3 000	2010	1 606	19,4
EU-15	729	2 531	9 225	12 970	17 382	22 935	28 401	34 244	40 317	82.000*		68 278	
Belgium				13	31	44	68	96	167	250		180	16,9
Denmark	409	637	1 738	2 417	2 556	2 936	3 110	3 118	3 122	5 000		6 614	24,1
Germany	110	1 132	4 442	6 095	8 754	12 001	14 609	16 629	18 428	28 000		26 500	17,3
Greece		28	158	179	298	355	375	473	573	2 000		1 337	27,1
Spain	15	133	1 815	2 334	3 360	4 635	6 202	8 263	10 027	22 000		20 975	21,6
France		3,0		79	85	147	239	390	757	6 000		959	18,3
Ireland		7,0		118	126	138	225	339	496	1 500		1 112	19,8
Italy	22	32	277	427	682	788	904	1 265	1 717	3 700		2 140	18,7
Luxembg.				10	15	16	22	35	35	50		42	12,7
Netherlands	83	249	433	441	483	685	873	1 079	1 219	2 500		2 060	17,0
Austria				78	95	115	415	606	819	500		1 320	18,8
Portugal		9		91	127	171	299	522	1 022	1 500		1 810	16,7
Finland		6		38	39	43	52	82	82	500		169	16,7
Sweden	9	69		241	268	308	399	442	500	2 500		931	21,5
UK	81	200	362	409	464	552	649	907	1 353	6 000		2 129	27,2
New Member States										Fig 9: Installed wind capacity (MW): Global and EU			
Cyprus	-	-	-	-	-	-	0	0	0				
Czech Republic	-	-	-	12	12	7	10	17	26				
Estonia	-	-	-	-	1	2	3	3	30				
Hungary	-	-	-	-	1	2	3	3	17				
Latvia	-	-	-	-	2	24	24	27	27				
Lithuania	-	-	-	-	-	-	2	7	7				
Malta	-	-	-	-	-	-	-	-	0				
Poland	-	-	-	5	22	27	58	63	73				
Slovak Republic	-	-	-	-	-	-	3	5	5				
Slovenia	-	-	-	-	-	-	-	-	0				
EU-25	729	2 531	9 225	12 987	17 420	22 997	28 567	34 371	40 504				
Acceding and applicant countries:													
Bulgaria	-	-	-	-	-	-	-	1	1				
Croatia	-	-	-	-	-	-	-	6	6				
Romania	-	-	-	1	1	1	1	1	1				
Turkev	-	-	-	19	19	19	20	20	20				

Fig 9: Installed wind capacity (MW): Global and EU



Sources: European Wind Energy Association (EWEA)

Long-term Research and Development needs for wind energy for the time frame 2000 to 2020, IEA

World Energy Outlook 2004, IEA

Wind Force 12, EWEA

Renewables information 2006, IEA

Electricity Information 2006, IEA

American Wind Energy Association (AWEA)

Global Wind Energy Council (GWEC)

<http://windpower-monthly.com/WPM:WINDICATOR:942753>

(1) AWEA estimates that at least 6% of US electricity by 2020 can be produced by wind

\*EU15 target by 2010 (82.000 megawatt) includes 7.000 megawatt added (Summer 2005) as new target for Spain. For further info please see:

[http://www.ewe.org/06projects\\_events/proj\\_WEfacts.htm](http://www.ewe.org/06projects_events/proj_WEfacts.htm)

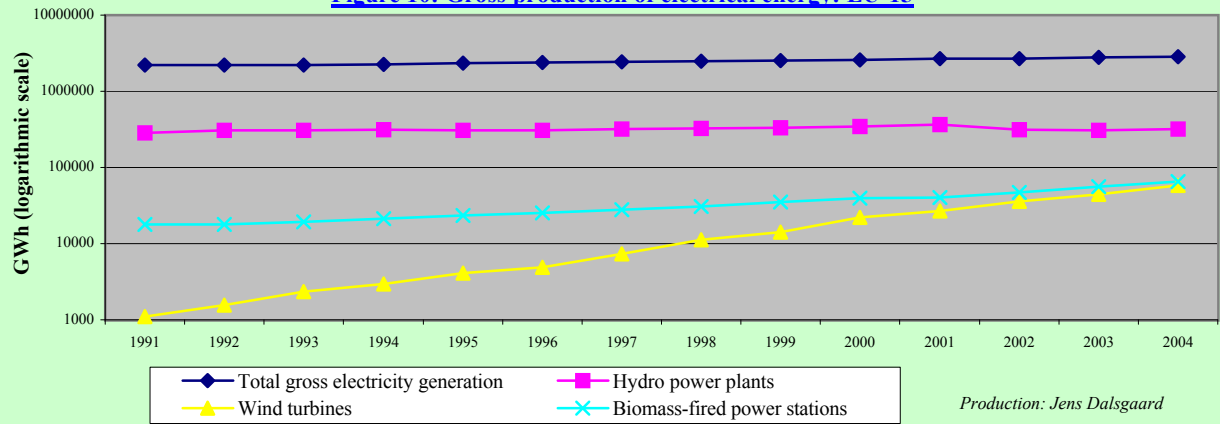
\*\*Capacity factor is the % of energy actually captured relative to what would be captured if the wind turbines were operating at full capacity all the time.

Production: Jens Dalsgaard

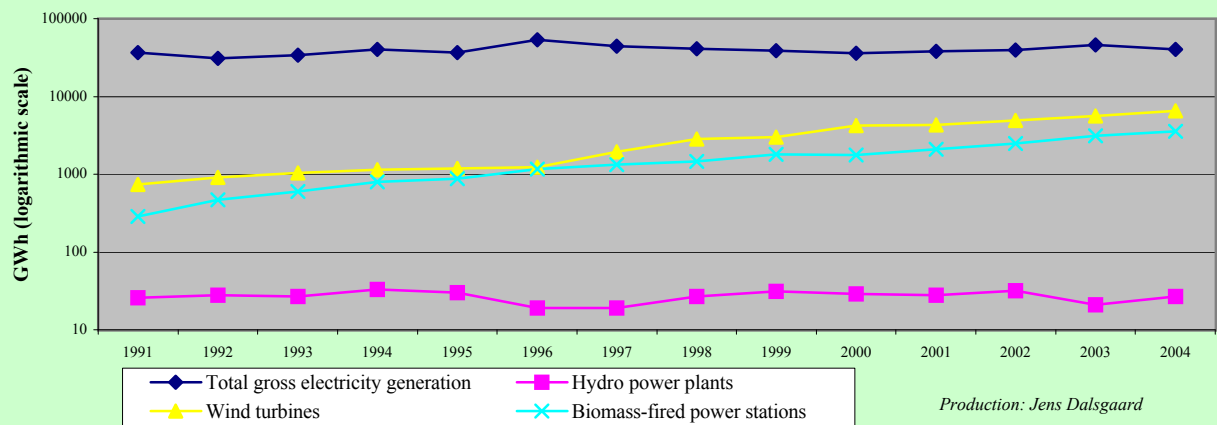
Figures written in *italic* are provisional/estimated

**Remark:** Analysis by the EWEA (see report Wind Force 12: A blueprint to achieve 12% of the world's electricity from wind power by 2020 (<http://www.ewe.org/03publications/WindForce12.htm>)) shows that there are no technical, economic, or resource limitations for wind power to supply 12% of the world's electricity by 2020. With stronger political commitments worldwide, the wind energy industry could install an estimated 230.000 MW by 2010 and 1.200.000 MW by 2020, which would give a production capacity of 3.100 TWh/year. Corresponding to a global wind power penetration of 12%. The annual reduction in CO2 would be 1832 million tons.

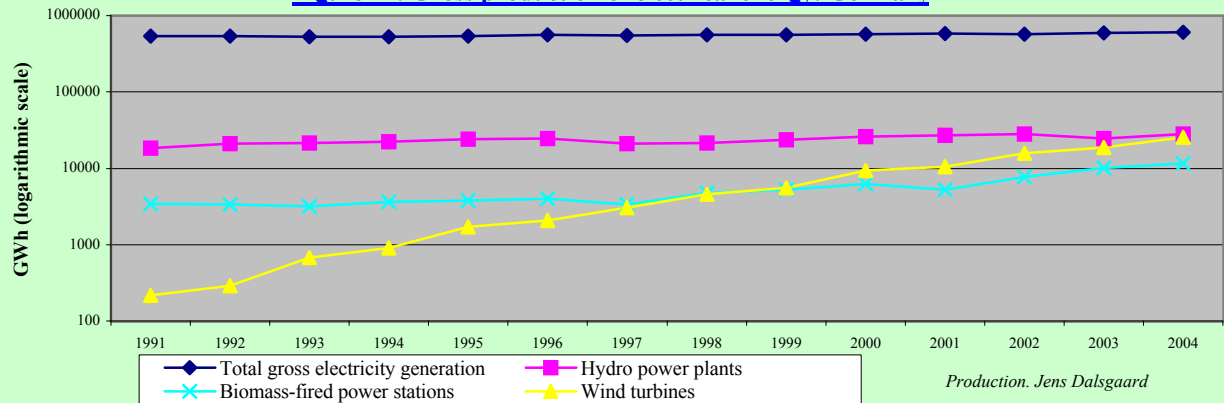
**Figure 10: Gross production of electrical energy: EU-15**



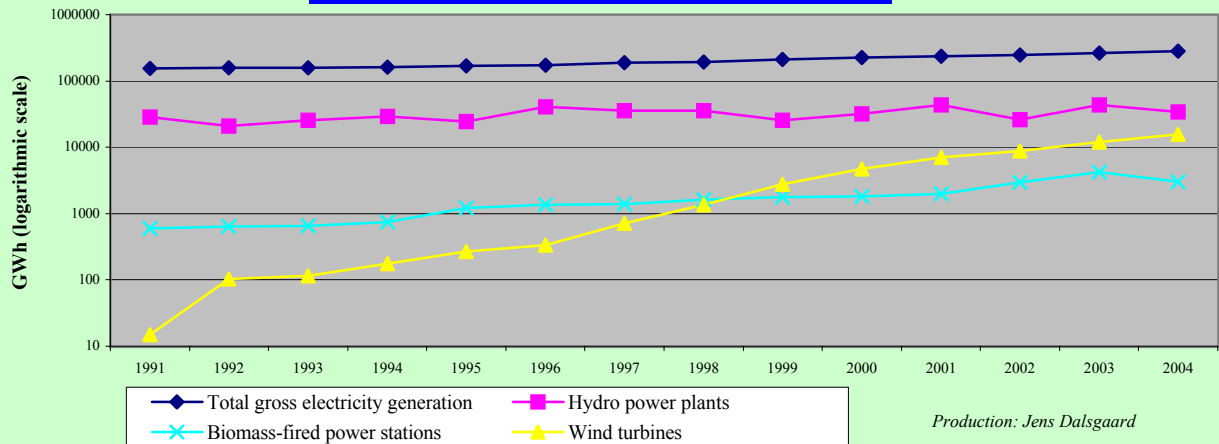
**Figure 11: Gross production of electrical energy: Denmark**



**Figure 12: Gross production of electrical energy: Germany**



**Figure 13: Gross production of electrical energy: Spain**



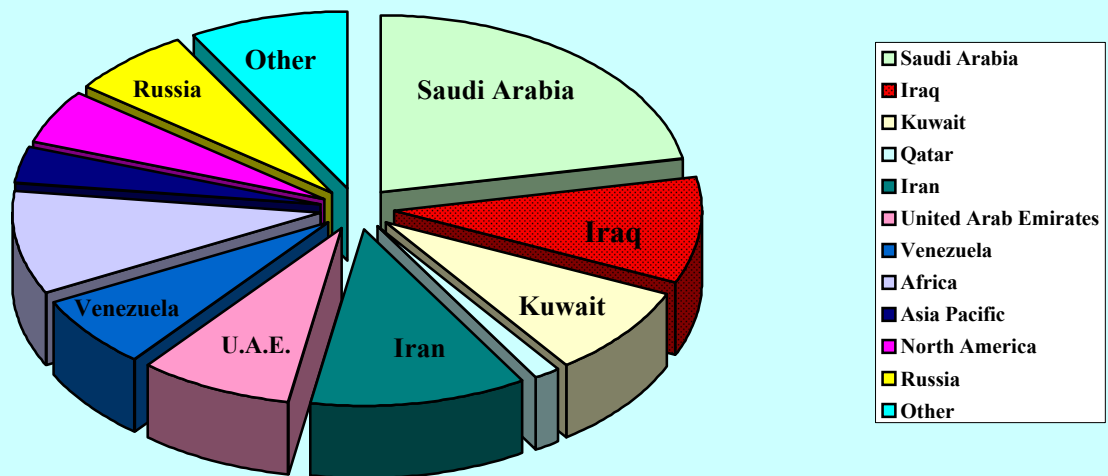
**Table 22 World Crude Oil and Natural Gas Reserve by selected countries**  
**Ultimo 2005**

Region/Country	Crude Oil		Natural Gas	
	Billion Barrels	- % -	Trillion Cubic metres	- % -
Saudi Arabia	264,2	22,0	6,90	3,8
Iraq	115,0	9,6	3,17	1,8
Kuwait	101,5	8,5	1,57	0,9
Qatar	15,2	1,3	25,78	14,3
Iran	137,5	11,5	26,74	14,9
United Arab Emirates	97,8	8,1	6,04	3,4
Venezuela	79,7	6,6	4,32	2,4
Africa	114,3	9,5	14,39	8,0
Asia Pacific	40,2	3,3	14,84	8,3
North America	59,5	5,0	7,46	4,1
Russia	74,4	6,2	47,82	26,6
Other	101,4	8,4	20,80	11,6
<b>World Total</b>	<b>1 200,7</b>	<b>100,0</b>	<b>179,83</b>	<b>100,0</b>

Source: BP Statistical Review of World Energy, June 2006

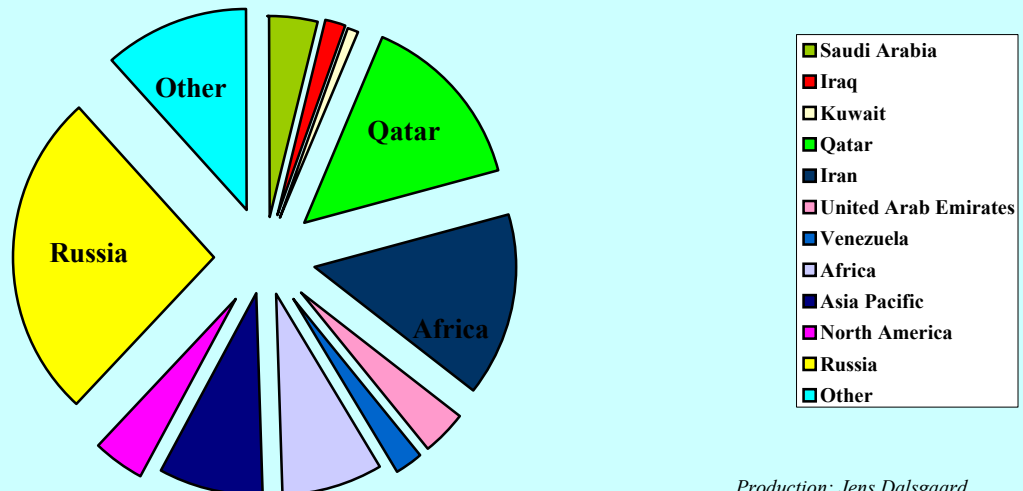
Production: Jens Dalsgaard

**Figure14: World Crude Oil Reserves**  
**Billion Barrels (1.200,7)**



Production: Jens Dalsgaard

**Figure 15: World Natural Gas Reserves**  
**Trillion Cubic metres (179,83)**



Production: Jens Dalsgaard



**Table 23: World Crude Oil Reserves, Production of Oil and NGL, 2005; World Oil Demand, 2004**

*By selected countries and country groups*

	Crude oil reserves, ultimo 2005	Natural Gas reserves, ultimo 2005	World oil and NGL* production 2005	World oil demand** 2004	Crude oil reserves, ultimo 2005	Natural Gas reserves, ultimo 2005	World oil and NGL* production 2005	World oil demand** 2004
	Billions barrels	Trillion cubic metres	Thousand metric tons		As % of World			
<b>EU-25</b>	6,0	4,06	121 633	672 684	0,5	2,3	3,1	17,6
<b>USA</b>	29,3	5,45	306 637	943 956	2,4	3,0	7,8	24,7
<b>Japan</b>	0,0	0,00	701	244 672	0,0	0,0	0,0	6,4
<b>Russia</b>	74,4	47,82	469 857	124 482	6,2	26,6	12,0	3,3
<b>China, P.R.</b>	16,0	2,35	183 336	308 207	1,3	1,3	4,7	8,1
<b>India</b>	5,9	1,10	36 936	120 707	0,5	0,6	0,9	3,2
<b>OPEC</b>	902,4	88,58	1 635 408	339 240	75,2	49,3	41,7	8,9
<b>Rest</b>	166,7	30,47	1 168 823,0	1 062 610,0	13,9	16,9	29,8	27,8
<b>World</b>	1 200,7	179,83	3 923 331	3 816 558	100,0	100,0	100,0	100,0

Sources: BP Statistical Review of World Energy, June 2006

Oil Information (2006 edition), IEA

Production: Jens Dalsgaard

\* NGL: Natural Gas Liquids

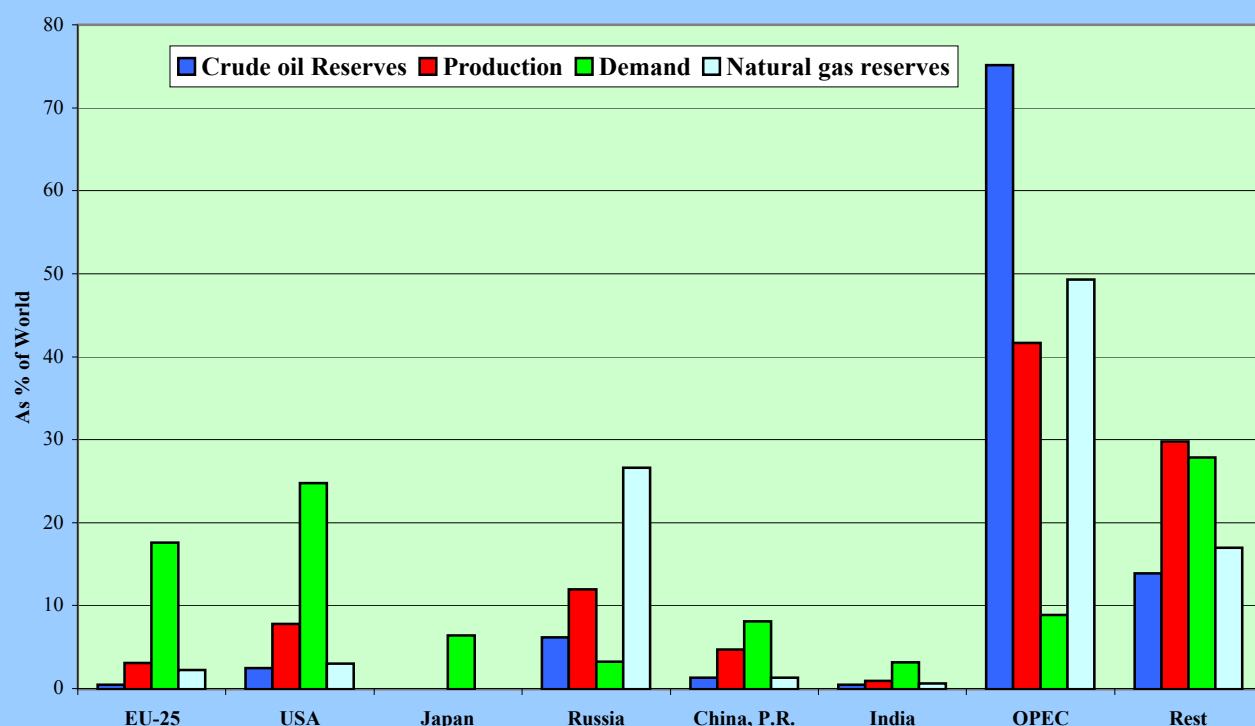
\*\* Net inland deliveries

OPEC: Iran, Iraq, Kuwait, Saudi Arabia, Venezuela, Qatar, Indonesia, Libya, U.A.E., Algeria and Nigeria

OAPEC: Organization of Arab Petroleum Exporting Countries: Algeria, Bahrain, Egypt, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, Syria and U.A.E.

**Figure 16: World Oil Reserves and Production, 2005; Demand of Oil, 2004**

*By countries and country groups*



Production: Jens Dalsgaard

**Table 24: World Crude Oil Reserves, Production of Oil and NGL, 2005 and World Oil Demand, 2004**

**By regions**

	Crude oil reserves, ultimo 2005	Natural Gas reserves, ultimo 2005	World oil and NGL* production 2005	World oil demand** 2004	Crude oil reserves, ultimo 2005	Natural Gas reserves, ultimo 2005	World oil and NGL* production 2005	World oil demand** 2004
	Billions barrels	Trillion cubic metres	Thousand metric tons		As % of World			
North America	54,6	7,46	637 632	1 135 158	4,5	4,1	16,3	29,7
Latin America	67,5	7,02	362 728	231 517	5,6	3,9	9,2	6,1
Europe	17,6	5,96	270 740	774 012	1,5	3,3	6,9	20,3
Russia and Central Asia***	66,1	58,05	576 533	176 865	5,5	32,3	14,7	4,6
Middle East	654,6	72,13	1 204 367	266 620	54,5	40,1	30,7	7,0
Africa	86,4	14,39	481 355	130 152	7,2	8,0	12,3	3,4
Asia & Oceania	57,2	14,84	206 640	785 042	4,8	8,3	5,3	20,6
World	1 200,7	179,83	3 923 331	3 816 558	100,0	100,0	100,0	100,0

Sources: BP Statistical Review of World Energy, June 2006

Oil Information (2006 edition), IEA

Production: Jens Dalsgaard

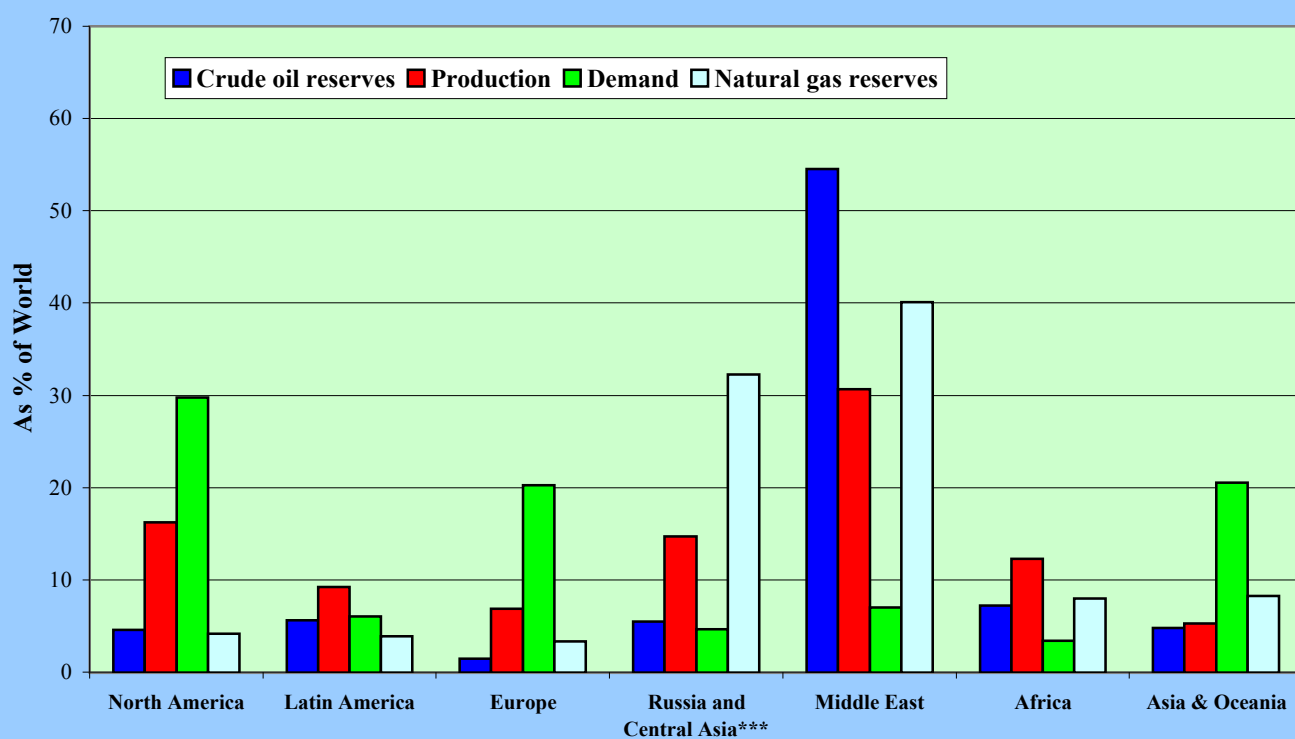
\* NGL: Natural Gas Liquids

\*\* Net inland deliveries

\*\*\*former USSR republics

**Figure 17: World Oil Reserves and Production, 2005; World oil demand 2004**

**By regions**



Production: Jens Dalsgaard

**Table 25: Dependency on imported oil, 2005**  
OECD and selected OECD countries

- Mtoe -

	Total Primary Energy Supply*	Total Supply of Energy from Oil (*)(**)	Net Oil imports**		
			- Mtoe-	As % of Primary Supply	As % of Oil Supply
<b>OECD Total</b>	5 523,3	2 190,6	1 347,8	24,4	61,5
<b>OECD Europe</b>	1 872,6	689,3	480,8	25,7	69,8
<b>OECD North America</b>	2 759,2	1 109,9	491,4	17,8	44,3
<b>Japan</b>	532,2	249,4	255,0	47,9	102,2
<b>EU15</b>	1 545,0	593,1	526,3	34,1	88,8
<b>USA</b>	2 319,2	915,0	624,5	26,9	68,2

Source: Energy Balances of OECD countries (2006 edition), IEA

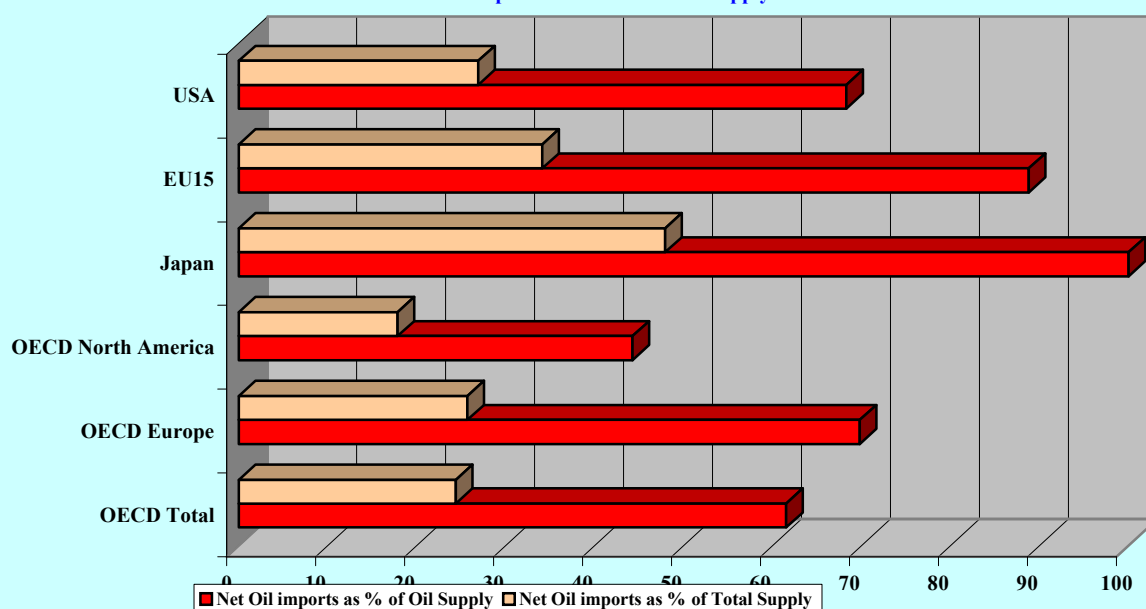
Production: Jens Dalsgaard

\*Production plus imports, international marine bunkers and stock changes minus exports

\*\* Crude oil and petroleum products; NGL

**Figure 18: Dependency on imported oil, 2005**

Net oil imports as % of Total supply of energy from oil  
Net oil imports as % of Total Oil Supply



Production: Jens Dalsgaard

**Table 26: World refinery output 1971-2005**

Global and by selected countries and regions

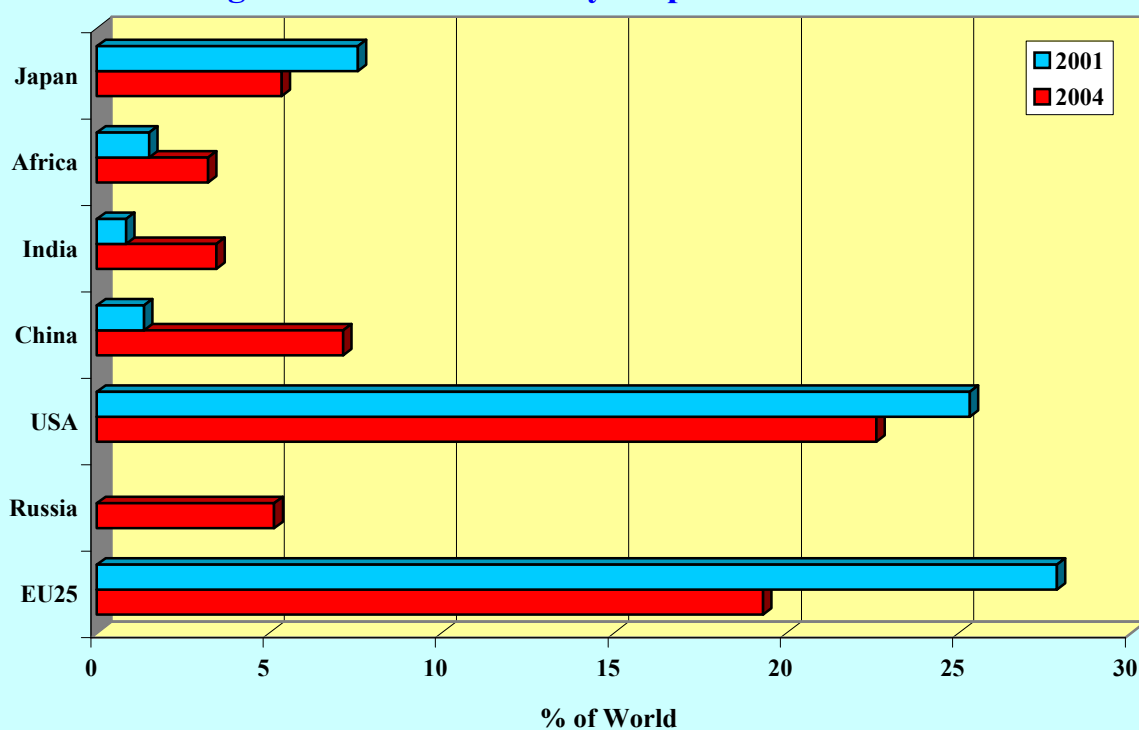
	1971	1978	1990	2000	2004	2005	1971	2004
	000 metric tons						- as % of World -	
<b>World</b>	2 364 659	2 970 099	3 081 518	3 484 094	3 719 939		100,0	100,0
<b>EU25</b>	658 385	710 187	629 412	695 547	718 851	714 909	27,8	19,3
<b>Rest Europe</b>	52 936	80 181	85 874	68 797	74 662		2,2	2,0
<b>Russia</b>				173 803	191 239			5,1
<b>USA</b>	598 453	788 157	730 552	822 834	840 558	843 024	25,3	22,6
<b>Japan</b>	179 039	213 895	176 275	206 568	199 193		7,6	5,4
<b>Korea</b>	11 497	24 214	42 365	122 001	116 362		0,5	3,1
<b>Brazil</b>	26 309	52 747	60 225	84 058	90 889		1,1	2,4
<b>Venezuela</b>	66 350	51 715	48 827	53 472	53 089		2,8	1,4
<b>Rest Latin America</b>	127 023	111 285	83 485	99 608	97 118		5,4	2,6
<b>Middle East</b>	101 138	121 692	204 358	281 486	304 340		4,3	8,2
<b>China</b>	32 300	67 161	106 701	195 835	265 410		1,4	7,1
<b>India</b>	19 867	25 671	51 272	102 551	128 996		0,8	3,5
<b>Asia (ex China, India)</b>	55 135	90 237	144 137	213 323	235 820		2,3	6,3
<b>Africa</b>	35 875	55 453	108 252	115 887	119 630		1,5	3,2

Source: Oil Information, IEA

Production: Jens Dalsgaard

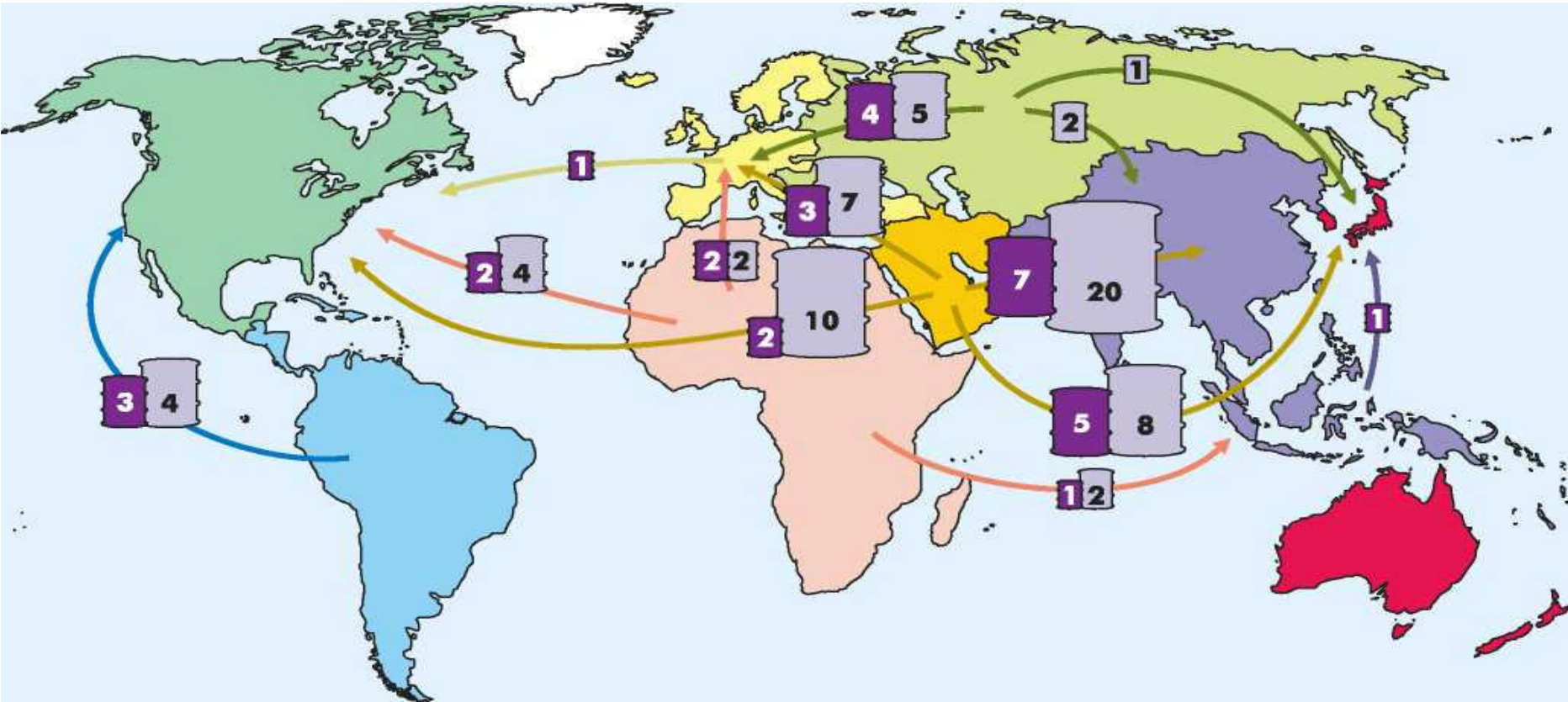
Figures written in *italic* are estimated (Lithuania: 1971/78=5000, 1990=6000 and 2005=8750)

**Figure 19: World refinery output 1971 and 2004**



Production: Jens Dalsgaard

**Figure 20: Major net inter-regional oil trade flows (mb/d)**

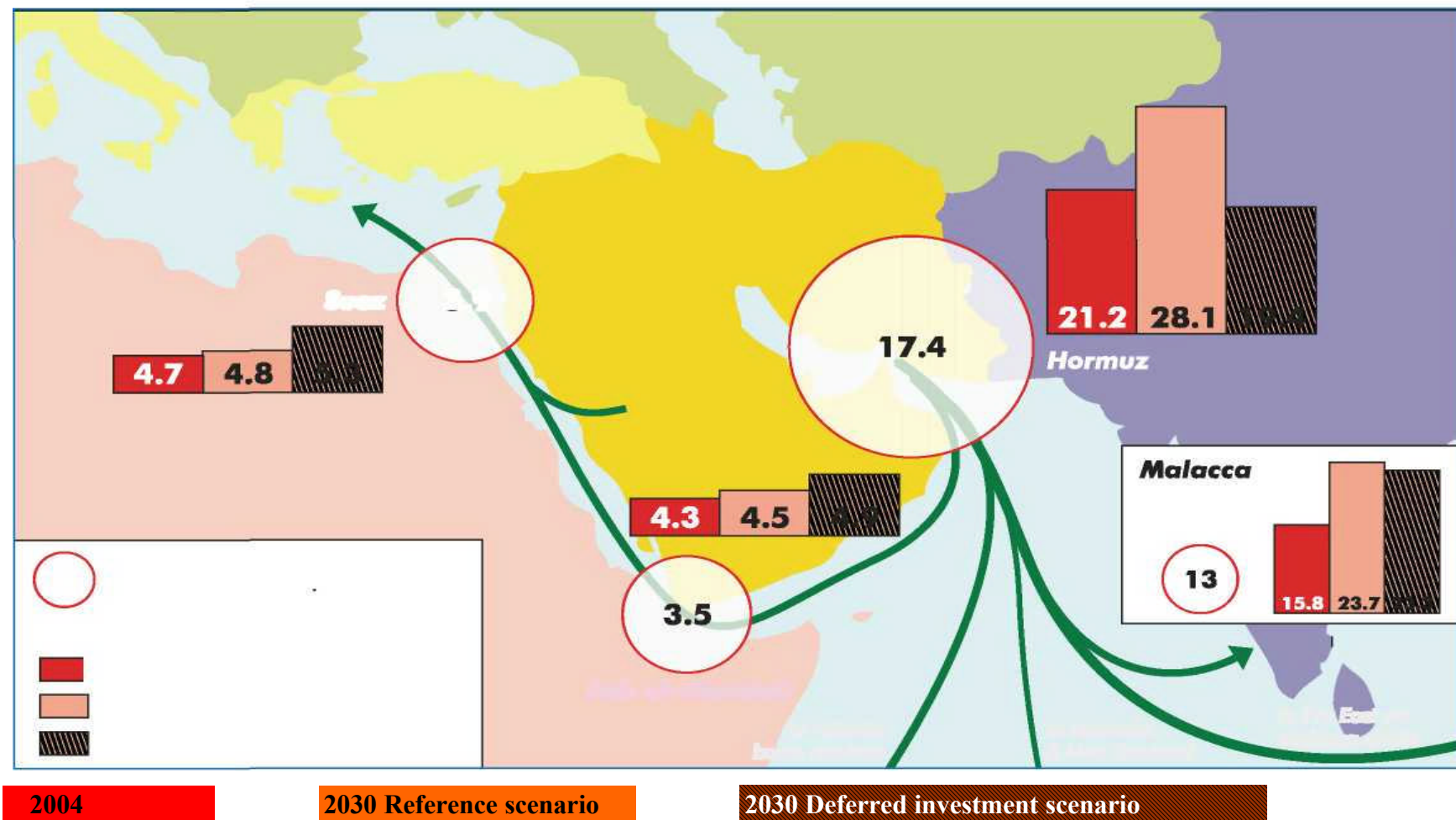


Source: Figure 3.24 World Energy Outlook 2004, IEA

*Production: Jens Dalsgaard*

**Figure 21: Oil exports flows from Middle East and North Africa and  
Major strategic maritime channels**

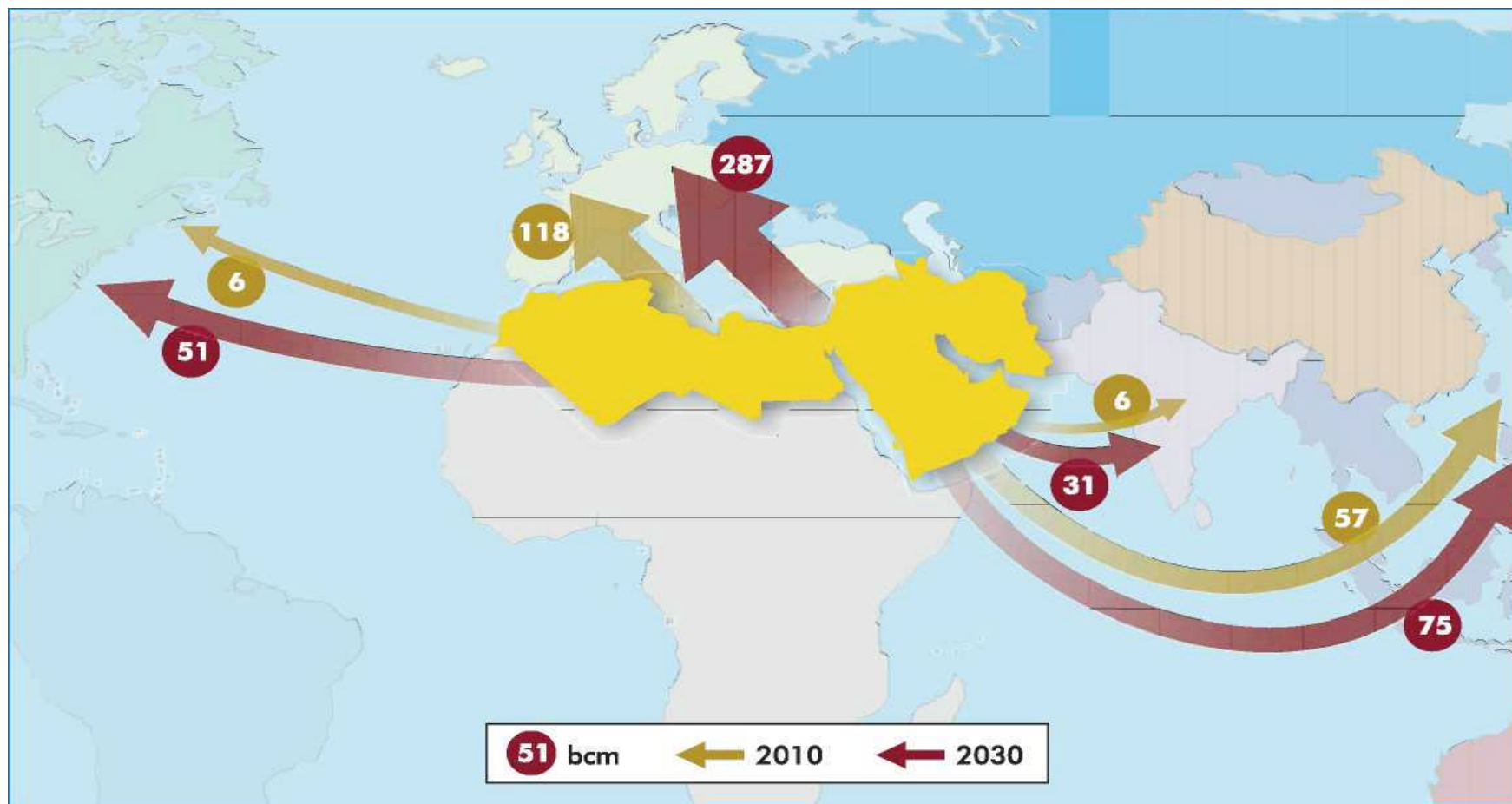
*Figure 8*



Source: Figure 8.3. World Energy Outlook 2005, IEA

Production: Jens Dalsgaard

**Figure 22: Natural Gas Exports of the Middle East and North Africa  
by Destination, 2010 and 2030 (bcm)**

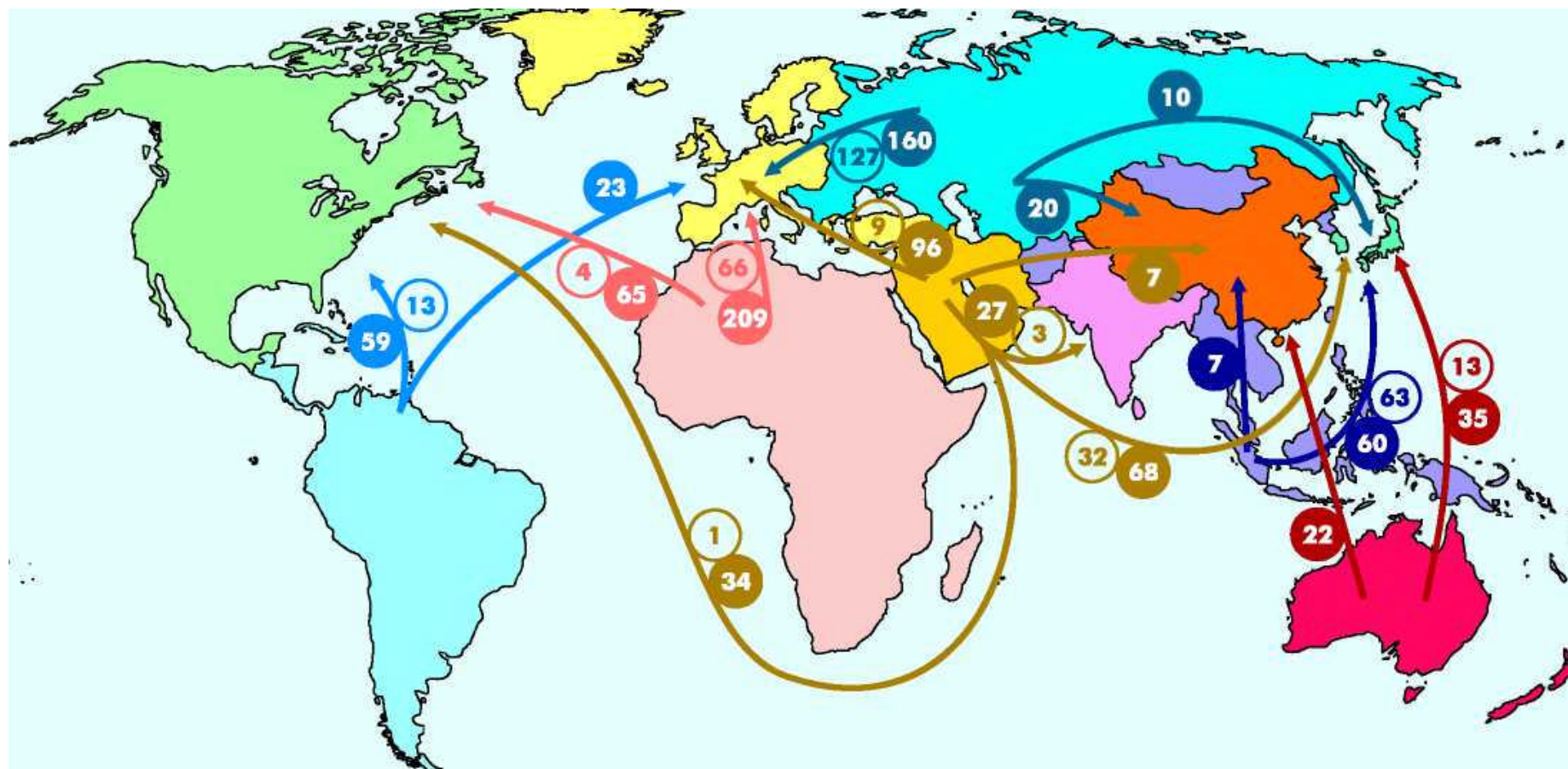


Source: Figure 5.6. World Energy Outlook 2005, IEA

Production: Jens Dalgaard



Figure 23: Main net intra-regional natural gas trade flows in the reference scenario, 2004 and 2030 (bcm)



OECD North America  
Transition economies

Latin America  
Middle East

OECD Europe  
India

OECD Oceania  
China

Source: Figure 4.4. World Energy Outlook 2006, IEA

Production: Jens Dalsgaard



**Table 27: GDP and net imports of energy of the European Union, 1999-2005**

	GDP	of which:		Net imports of mineral fuels (SITC 3)	Petroleum/ petroleum products (SITC 33)
		Net imports of mineral fuels (SITC 3)	of which:		
			Petroleum/ petroleum products (SITC 33)		
	MIO EURO			As % of GDP	
1999	8 489 547	122 520	105 182	1,4	1,2
2000	9 095 739	131 194	103 834	1,4	1,1
2001	9 464 553	131 474	95 947	1,4	1,0
2002	9 816 365	121 895	89 161	1,2	0,9
2003	9 971 244	129 114	93 122	1,3	0,9
2004	10 448 531	148 828	112 136	1,4	1,1
2005	10 846 457	222 966	164 134	2,1	1,5

Sources: New Cronos, EUROSTAT

External and Intra-European Union Trade 11/2004 and 10/2006, EUROSTAT

Production: Jens Dalsgaard

**Table 28: Dependency on exports of energy products, 2004**

**OPEC, Russia and Norway**

Country	Merchandise exports as % of GDP	Exports of fuel as % of merchandise exports
<b>OPEC</b>		
Iran	27,2	85
Iraq	141,3	:
Kuwait	51,6	:
Saudi Arabia	50,4	86
Venezuela	31,1	85
Qatar	:	:
Indonesia	28,1	18
Libya	71,6	:
U.A.E.	79,4	:
Algeria	38,2	97
Nigeria	32,8	98
<b>Russia</b>	31,6	50
<b>Norway</b>	32,7	64

Source: World Development Indicators 2006, World Bank

Production: Jens Dalsgaard

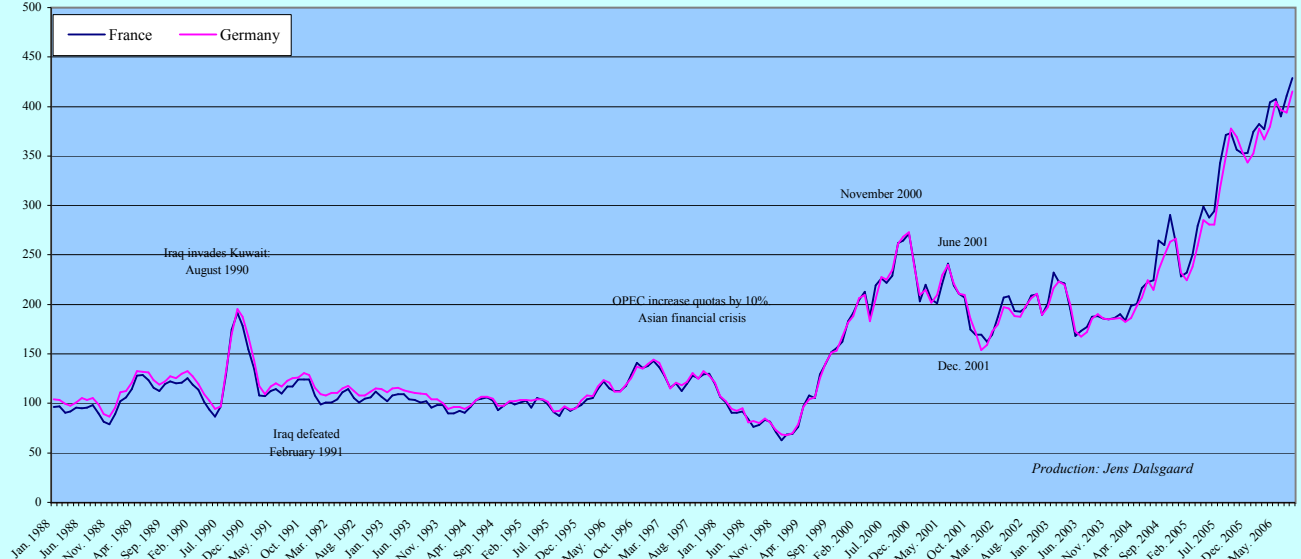
**Figure 24: Crude oil (Brent) spot prices**

01/01/1998-24/10/2006



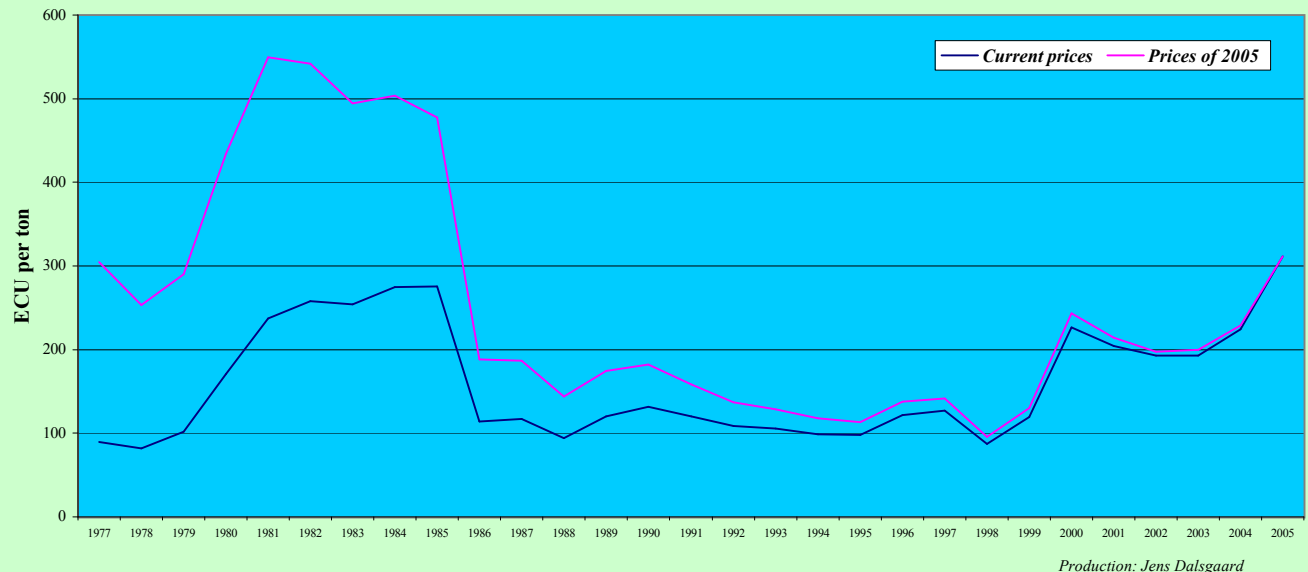
**Figure 25: Import prices (CN 2709/SITC 333): France and Germany**

Monthly average: Jan. 1988-Aug 2006; ECU/EURO per TON



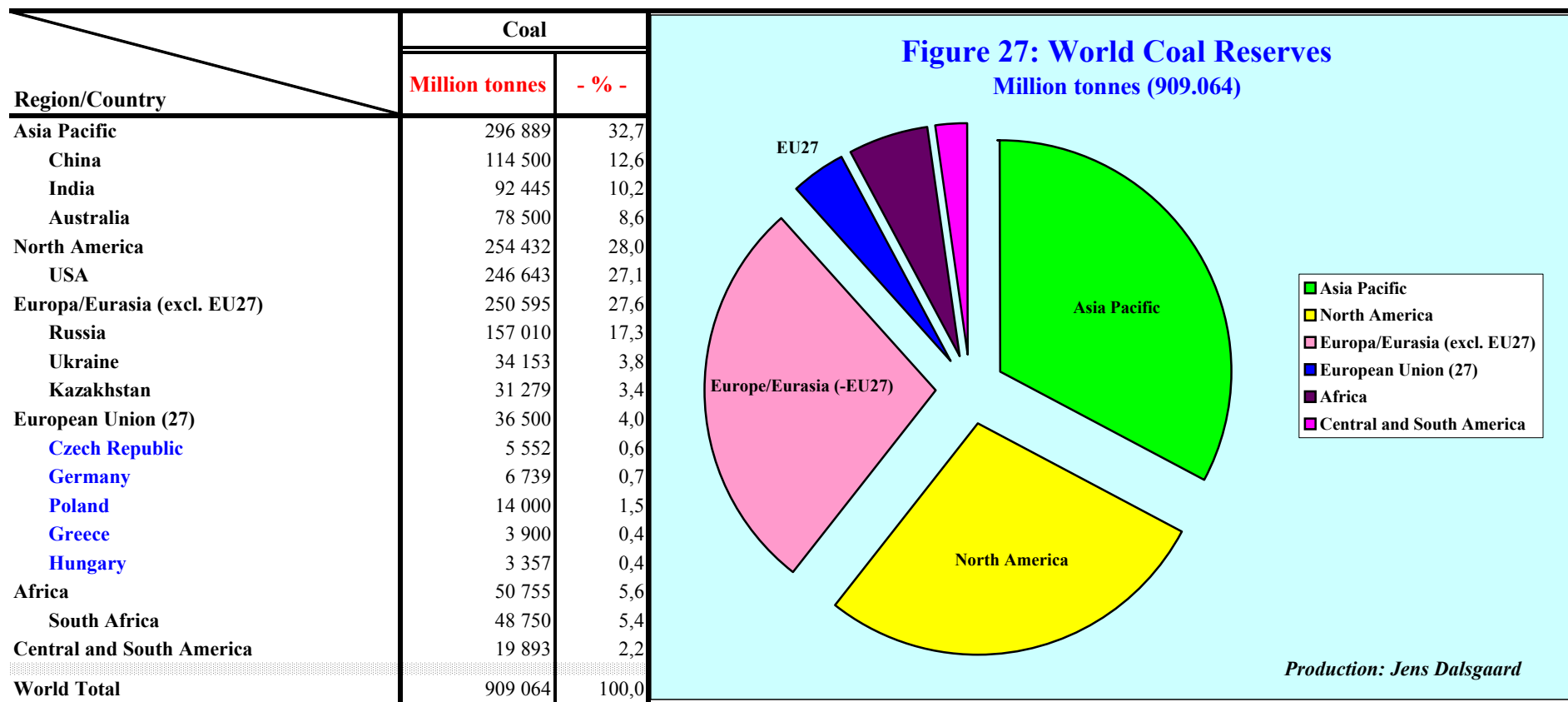
**Figure 26: Average annual import prices (CN 2709/SITC 333): 1977-2005**

Current prices and prices of 2005 (=Current prices deflated by GDP deflator rate for EU15)



**Table 29 World Recoverable Reserves of Coal, ultimo 2005**

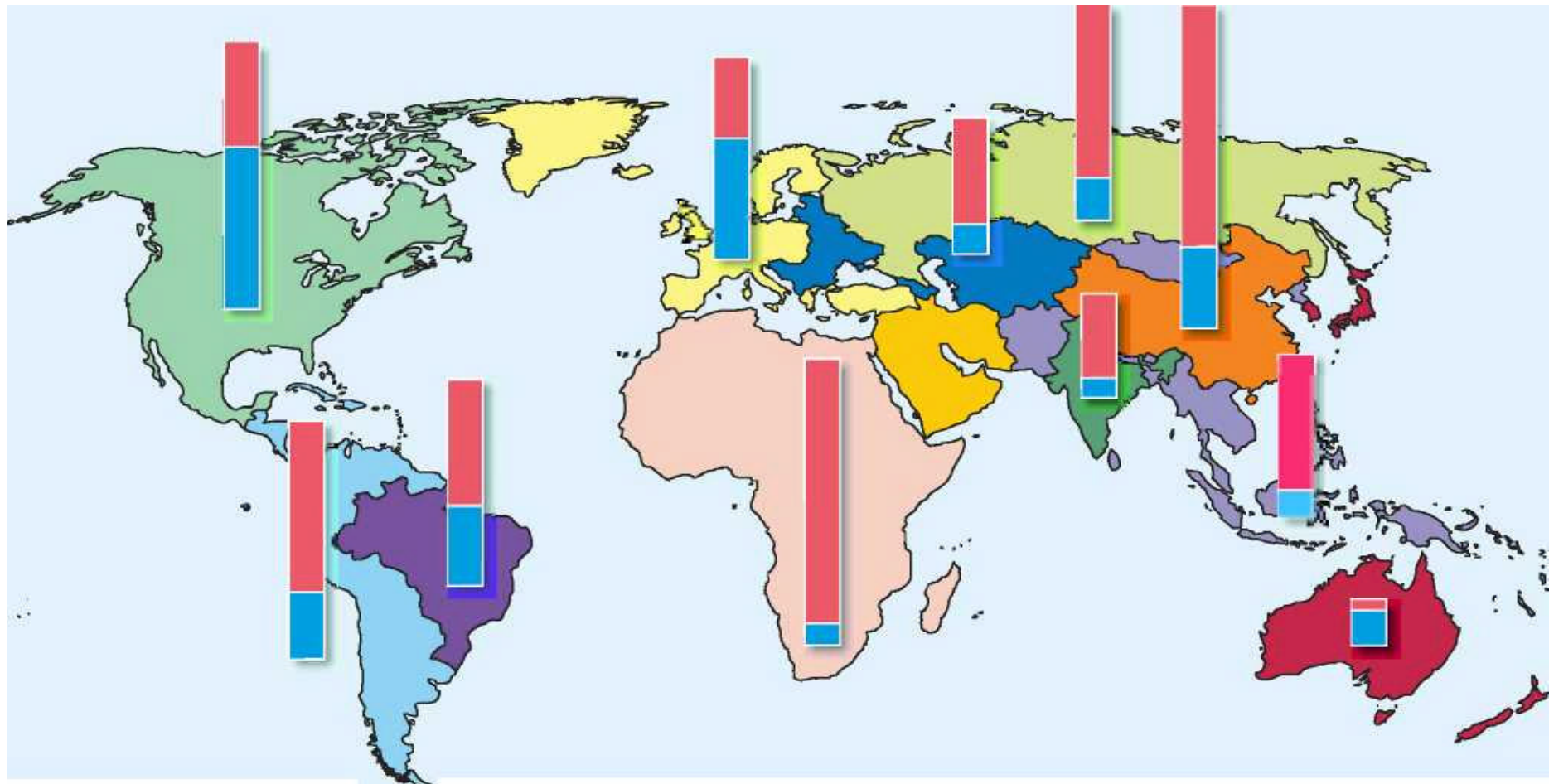
**By selected countries and regions**



Source: BP Statistical Review of World Energy, June 2006

*Production: Jens Dalgaard*

**Figure 28: World and regional hydropower potential and production in 2004**



**Economic potential (TWh/year)**

**Hydropower production 2004 (TWh)**

Source: Figure 6.5. World Energy Outlook 2006, IEA

Production: Jens Dalsgaard

## Links and references

### 1. EU WEB-links

- 1.1. [European Parliament \(EP\)](http://www.europarl.europa.eu/)
- 1.1.1. [EP: Fact Sheets \(EN, FR, DE\)](http://www.europarl.europa.eu/facts/default_en.htm)
- 1.2. [European Commission](http://ec.europa.eu/index_en.htm)
- 1.2.1. [European Commission Directorate-General for Energy and Transport](http://ec.europa.eu/dgs/energy_transport/index_en.html)
- 1.2.2. [European Commission Directorate-General for Research](http://ec.europa.eu/dgs/research/index_en.html)
- 1.2.2.1. [European Commission Directorate-General for Research -Seventh R&D Framework Programme](http://ec.europa.eu/research/fp7/)
- 1.2.3. [European Commission Directorate-General for External Relations](http://ec.europa.eu/comm/external_relations/index.htm)
- 1.2.3.1. [EU Relations with Russia](http://ec.europa.eu/comm/external_relations/russia/csp/index.htm)
- 1.2.3.2. [EU-Russia Energy Dialogue](http://ec.europa.eu/energy/russia/index_en.htm)
- 1.2.3.3. [EU-Russia Energy Dialogue: Presentations and Speeches](http://ec.europa.eu/energy/russia/presentations/index_en.htm)
- 1.2.4. [EUROSTAT \(Statistical Office of the European Union\)](http://epp.eurostat.ec.europa.eu)

### 2. Other links

- 2.1. [European Energy Forum](http://europeanenergyforum.eu/)
- 2.2. [International Energy Agency \(OECD\)](http://www.iea.org/)
- 2.3. [American Wind Energy Association](http://www.awea.org/)
- 2.4. [Bundesverband Windenergie](http://www.wind-energie.de/)
- 2.5. [European Biomass Association](http://aebiom.org/)
- 2.6. [Energy Information Administration](http://eia.doe.gov/)
- 2.7. [European Renewable Energy Council](http://www.erec-renewables.org/)
- 2.8. [European Wind Energy Association](http://www.ewea.org/)
- 2.9. [Global Wind Energy Council](http://www.gwec.net/)
- 2.10. [Renewable Energy Access](http://www.renewableenergyaccess.com/rea/home)
- 2.11. [Statistical Review of World Energy, BP](http://www.bp.com/productlanding.do?categoryId=6842&contentId=7021390)
- 2.12. [Wind Energy Statistics World Wide](http://home.wxs.nl/~windsh/stats.html)
- 2.13. [UNFCCC: Global Change and Climate Change Links](http://www.itas.fzk.de/eng/infum/gch_KRK.htm)

### 3. Individual links

- 3.1. [Peter Palinkas, Luxembourg](http://www.peterpalinkas.eu/)