

# Energie: Jährliche Statistiken

**Daten 2003**

.....

# Energy: Yearly statistics

**Data 2003**

.....

# Énergie: statistiques annuelles

**Données 2003**

.....



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**Eurostat**

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## CONVERSION COEFFICIENTS

## COEFFICIENTS DE CONVERSION

		kJ(NCV/PCI)		kgoe (NCV)/kgep (PCI)	
Hard coal	1 kg	17200 - 30700	0.411 - 0.733	1 kg	Houille
Recoverd hard coal	"	13800 - 28300	0.330 - 0.676	"	Houille récupérée
Patent fuels	"	26800 - 31400	0.640 - 0.750	"	Agglomérés de houille
Hard coke	"	28500	0.681	"	Coke de houille
Brown coal	"	5600 - 10500	0.134 - 0.251	"	Lignite récent
Black lignite	"	10500 - 21000	0.251 - 0.502	"	Lignite ancien
Peat	"	7800 - 13800	0.186 - 0.330	"	Tourbe
Brown coal briquettes	"	20000	0.478	"	Briquettes de lignite
Tar	"	37700	0.900	"	Goudron
Benzol	"	39500	0.943	"	Benzol
<b>Oil equivalent <sup>(1)</sup></b>	<b>1 kg</b>	<b>41868</b>	<b>1</b>	<b>1 kg</b>	<b>Equivalent pétrole <sup>(1)</sup></b>
Crude oil	"	41600 - 42800	0.994 - 1.022	"	Pétrole brut
Feedstocks	"	42500	1.015	"	Feedstocks
Refinery gas	"	50000	1.194	"	Gaz de raffinerie
LPG	"	46000	1.099	"	GPL
Motor spirit	"	44000	1.051	"	Essences moteur
Kerosenes, jet fuels	"	43000	1.027	"	carburacteur
Naphtha	"	44000	1.051	"	Naphta
Gas diesel oil	"	42300	1.010	"	Gasoil, fuel-oil fluide
Residual fuel oil	"	40000	0.955	"	Fuel- oil résiduel
White spirit, industrial spirit	"	44000	1.051	"	White spirit, ess. spéciales
Lubricants	"	42300	1.010	"	Lubrifiants
Bitumen	"	37700	0.900	"	Bitumes
Petroleum cokes	"	31400	0.750	"	Coke de pétrole
Others petroleum products (paraffins, waxes, etc.)	"	30000	0.717	"	Autres produits pétroliers (paraffines, cires, etc.)
Natural gas	1 MJ (GCV)	900	0.0215	1 MJ (PCS)	Gaz naturel
Coke-oven gas	"	900	0.0215	"	Gaz de cokeries
Blast-furnace gas	"	1000	0.0239	"	Gaz de hauts fourneaux
Works gas	"	900	0.0215	"	Gaz d'usines
Nuclear energy	1 MJ(GCV)	1000	0.024	1 MJ(PCS)	Energie nucléaire
Biomass	1 MJ (GCV)	1000	0.024	1 MJ (PCS)	Biomasse
Solar energy	"	1000	0.024	"	Energie solaire
Geothermal energy	"	1000	0.024	"	Energie géothermique
Hydro energy	1 kWh	3600	0.086	1 kWh	Energie hydraulique
Wind energy	1 kWh	3600	0.086	1 kWh	Energie éolienne
Derived heat	1 MJ (GCV)	1000	0.024	1MJ(PCS)	Chaleur dérivée
Electrical energy	1 kWh	3600	0.086	1 kWh	Energie électrique

<sup>(1)</sup> The tonne of oil equivalent is a conventional standardized unit defined on the basis of a tonne of oil with a net calorific value of 41868 kilojoules/kg. The conversion coefficients from the specific units to kgoe (kilogramme of oil equivalent) are thus computed by dividing the conversion coefficients to the kilojoules by 41868.

<sup>(1)</sup> La tonne d'équivalent pétrole est une unité conventionnelle standardisée définie sur la base d'une tonne de pétrole ayant un pouvoir calorifique inférieur de 41868 kilojoules/kg. Les coefficients de conversion des unités spécifiques vers le kgep (kilogramme d'équivalent pétrole) sont de ce fait calculés en divisant les coefficients de conversion vers les kilojoules par 41868.

## **BREAKDOWN OF ENERGY CONSUMPTION BY INDUSTRY** (except the 'Energy' branch)

of which :

1. **Iron and steel** (NACE<sup>1</sup> 27.1 + 27.2 + 27.3 + 27.51 + 27.52)
2. **Non-ferrous metals** (NACE 27.4 + 27.53 + 27.54)
3. **Chemical industry** (NACE 24)
4. **Non-metallic mineral products** (NACE 26)
5. **Ore-extraction (except fuels)** (NACE 13 + 14)
6. **Food, drink and tobacco** (NACE 15 + 16)
7. **Textile, leather and clothing** (NACE 17 + 18 + 19)
8. **Paper and printing** (NACE 21 + 22)
9. **Engineering and other metal** (NACE 28 + 29 + 30 + 31 + 32+ 34 + 35)
10. **Other non-classified** (NACE 20 + 25 + 33 + 36 + 37 + 45 )

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<sup>1</sup> NACE Rev.1 General Classification of Industrial Activities in the European Community

## Abbreviations and symbols

<b>p</b>	provisional data	<b>kWh</b>	kilowatt hour
<b>:</b>	no data available	<b>MW</b>	megawatt = $10^3$ kW
<b>—</b>	nil*	<b>GWh</b>	gigawatt hour = $10^6$ kWh
<b>0</b>	figure less than half the unit used	<b>J</b>	joule
<b>kgoe</b>	kilogram of oil equivalent (41868 kjoules NCV/kg)	<b>kJ</b>	kilojoule
<b>Mio</b>	million	<b>TJ</b>	terajoule = $10^9$ kJ
<b>Mrd</b>	1 000 million	<b>NCV</b>	net calorific value
<b>t</b>	tonne (metric ton)	<b>GCV</b>	gross calorific value
<b>t = t</b>	tonne for tonne	<b>EUR</b>	European currency unit
<b>toe</b>	tonne of oil equivalent (41868 kjoules NCV/kg)	<b>of which</b>	the words 'of which' indicate the presence of all the subdivisions of the total
		<b>among which</b>	the words 'among which' indicate the presence of certain subdivisions only

\*External trade by country of origin is not yet available for the 10 new Member States



# 1. Energy economy

## Key figures and energy indicators

EU-25	EU-25						
	1998	1999	2000	2001	2002	2003	
<b>Energy statistics</b>							
Primary energy production	1000 toe	897 569	903 634	892 133	892 717	892 034p	885 429
Net energy imports		786 136	765 587	801 710	830 437	830 350	875 649p
Net oil imports		537 616	503 461	517 765	539 753	526 085	547 473p
Net gas imports		162 222	177 789	187 069	185 574	201 163	216 160
Gross inland energy consumption		1 648 522	1 642 126	1 654 179	1 691 808p	1 684 720p	1 726 188p
Final energy consumption		1 069 636p	1 071 181p	1 086 646p	1 112 893p	1 099 644p	1 131 564p
Industry		304 228p	300 062p	313 373p	313 759p	309 860p	317 177p
Transport		322 768	331 877	333 650	335 748	339 034p	344 376p
Services and households etc.		442 640p	439 242p	439 623p	463 386p	450 750p	470 012p
Gross electricity generation	GWh	2 813 704	2 849 363	2 928 506	3 010 773	3 019 626	3 120 534
Final electricity consumption		2 337 153	2 379 414	2 457 791	2 530 457	2 540 619	2 611 543
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	7 422 558	7 638 690	7 923 077	8 068 123	8 157 828	8 239 745
Population	1000 per.	449 106	449 975	451 080	452 016	452 641	454 580
Industry added value	Mio EUR	:	:	:	:	:	:
Total imports (current prices)	Mio EUR	:	2 657 649	2 950 300	3 018 264	3 056 941	3 144 276
among which:							
All energy commodities		90 229	113 146	213 774	208 349	200 363	212 978
Oil products		64 995	88 794	174 222	157 567	150 285	157 708
<b>Energy intensity</b>							
Gross inland consumption/GDP(95)	kgoe/1 000 EUR	222.1	215.0	208.8	209.7	206.5	209.5
Final energy consumption / GDP(95)		144.1	140.2	137.1	137.9	134.8	137.3
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 671	3 649	3 667	3 743	3 722	3 797
Final energy consumption / capita		2 382	2 381	2 409	2 462	2 429	2 489
Household consumption / capita		625	617	626	660	640	661
Electricity consumption / capita	kWh/cap.	5 475	5 561	5 691	5 779	5 913	6 064
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	46.5	45.5	47.2	47.8	48.0	49.4
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption		64.9	65.2	65.7	65.8	65.3	65.6
Efficiency of thermal power stations		46.0	45.8	47.9	48.5	48.0	47.7


## 2. Energy balance

### Principal aggregates by product


eurostat	in 1 000 toe	EU-25						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total		897 569	903 634	892 133	892 717	892 034p	885 429	-0.7%
<i>among which:</i> Hard coal		158 894	145 820	134 273	129 748	125 762	123 656	-1.7%
Lignite and peat		68 121	67 798	67 500	70 807	73 748	72 982	-1.0%
Crude oil		163 919	170 146	162 306	151 420	154 424	144 606	-6.4%
Natural Gas		188 128	191 778	196 677	197 371	193 672	189 392	-2.2%
Nuclear heat		230 234	237 930	237 664	246 026	248 786	251 163	1.0%
Hydro-electricity		27 674	27 525	29 000	30 609	25 559	24 949	-2.4%
Biomass		54 991	56 218	58 312	60 076	62 046	68 463	10.3%
<b>Imports</b>								
Total		1 181 816	1 168 400	1 233 254	1 261 987	1 268 609	1 308 443p	3.1%
<i>among which:</i> Hard coal		111 092	106 258	117 028	130 143	123 171	129 056	4.8%
Crude oil and feedstocks		626 887	592 948	615 191	615 029	603 085	619 223	2.7%
Petroleum products		217 942	221 762	231 428	241 512	246 773	249 358p	1.0%
Natural Gas		199 124	219 208	235 999	241 302	260 707	274 833	5.4%
Electricity		16 891	19 300	22 345	22 099	24 225	24 716	2.0%
<b>Exports</b>								
Total		395 680	402 812	431 544	431 550	438 259	432 794	-1.2%
<i>among which:</i> Crude oil and feedstocks		101 365	112 226	118 373	106 184	109 665	97 989	-10.6%
Petroleum products		205 848	199 023	210 480	210 603	214 108	223 119	4.2%
Natural gas		36 902	41 420	48 929	55 729	59 544	58 672	-1.5%
Electricity		16 693	18 094	20 201	20 975	22 356	24 311	8.7%
<b>Gross inland consumption</b>								
Total		1 648 522	1 642 126	1 654 179	1 691 808p	1 684 720p	1 726 188p	2.5%
<i>among which:</i> Solid fuels		322 858	298 897	305 599	307 165	305 068	314 379	3.1%
Crude oil and petrol. prod.		651 861	645 869	635 814	649 265	641 490	646 005p	0.7%
Natural gas		352 375	366 066	376 897	387 792	389 024	408 081	4.9%
Nuclear Energy		230 234	237 930	237 664	246 026	248 786	251 163	1.0%
Renewables		88 199	89 714	93 374	97 379	95 346p	103 401	8.4%
<b>Transformation input</b>								
Total		1 401 995p	1 375 597	1 398 840	1 404 472p	1 410 609p	1 448 648p	2.7%
<i>among which:</i> Crude oil and feedstocks		730 475	696 294	710 440	709 209	704 514	717 239	1.8%
Petroleum products		46 933	44 948	40 226	38 704	38 566p	35 692p	-7.5%
Hard coal		203 674	193 219	201 025	198 199	196 343	206 893	5.4%
Lignite and peat		68 714	66 584	68 861	71 576	72 662	72 982	0.4%
Renewables		13 184	14 521	15 468	16 494	17 896	21 581	20.6%
<b>Transformation output</b>								
Total		1 044 941p	1 006 825p	1 030 764p	1 034 657p	1 030 535p	1 055 801p	2.5%
<i>among which:</i> Electricity		211 241	213 964	218 577	223 468	228 263	236 599	3.7%
Heat		43 018p	44 840p	50 530p	53 070p	51 891p	52 936p	2.0%

eurostat	in 1 000 toe	EU-25						
		1998	1999	2000	2001	2002	2003	03/02
<b>Final energy consumption</b>								
Total		1 069 636p	1 071 181p	1 086 646p	1 112 893p	1 099 644p	1 131 564p	2.9%
<i>among which:</i> Solid fuels		66 038	60 368	58 164	56 577	53 115	51 155	-3.7%
Petroleum products		471 802	473 149	469 183	480 751	475 304p	484 792p	2.0%
Natural Gas		239 464	241 569	249 164	256 457	252 743	266 448	5.4%
Renewables		41 986	41 556	43 169	44 033	44 550	47 007	5.5%
Electricity		200 959	204 593	211 332	217 580	218 454	224 552	2.8%
<b>Final energy consumption by sector</b>								
<b>Industry</b>								
Total		304 228p	300 062p	313 373p	313 759p	309 860p	317 177p	2.4%
<i>among which:</i> Solid fuels		48 835	44 376	45 156	43 380	41 046	40 176	-2.1%
Petroleum Products		48 604	46 203	45 554	49 179	46 851p	50 404p	7.6%
Natural Gas		89 312	91 167	98 249	95 764	96 737	98 775	2.1%
Renewables		14 669	14 589	15 427	15 212	15 694	15 178	-3.3%
Electricity		84 047	85 490	89 604	91 024	91 214	92 332	1.2%
<b>Transport</b>								
Total		322 768	331 877	333 650	335 748	339 034p	344 376p	1.6%
<i>among which:</i> Motor spirit		134 534	135 603	129 728	127 086	125 323p	121 529	-3.0%
Diesel oil		136 578	142 071	147 667	153 583	158 489p	164 916p	4.1%
Jet fuel		40 546	43 169	45 188	43 729	43 321p	44 551p	2.8%
Electricity		5 755	5 740	5 916	5 889	5 959	6 061	1.7%
<b>Services&amp;households</b>								
Total		442 640p	439 242p	439 623p	463 386p	450 750p	470 012p	4.3%
<i>among which:</i> Solid fuels		17 196	15 991	12 997	13 168	12 046	10 976	-8.9%
Gas oil		87 387	81 747	78 456	84 062	78 455p	79 424p	1.2%
Natural Gas		149 853	150 096	150 567	160 270	155 576	167 222	7.5%
Renewables		26 957	26 561	27 105	28 166	27 899	29 778	6.7%
Electricity		111 157	113 363	115 812	120 667	121 281	126 159	4.0%
Heat		29 645p	30 788p	35 235p	37 324p	36 122p	35 999p	-0.3%


### 3.1 Electricity balance

 eurostat	in GWh	EU-25						
		1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>								
Total gross generation		2 813 704	2 849 363	2 928 506	3 010 773	3 019 626	3 120 534	3.3%
<i>among which:</i>								
Hydro		346 779	347 852	364 214	384 835	329 272	324 702	-1.4%
Wind		11 277	14 216	22 249	26 975	35 705	44 258	24.0%
Geothermal		4 272	4 483	4 785	4 612	4 758	5 431	14.1%
Nuclear		911 299	922 937	921 359	953 759	964 461	973 674	1.0%
Conventional thermal		1 540 077	1 559 875	1 615 899	1 640 592	1 685 430	1 772 469	5.2%
<i>of which:</i>								
Hard coal		608 519	578 320	615 638	612 361	619 299	664 542p	7.3%
Lignite and peat		268 580	262 955	274 124	285 548	278 984	295 838p	6.0%
Petroleum products		209 554	196 840	176 674	168 575	183 853	162 391p	-11.7%
Natural gas		381 313	444 496	469 890	477 162	512 481	550 965p	7.5%
Derived gases		32 052	32 276	30 562	31 557	30 218	30 631p	1.4%
Biomass		31 743	36 605	40 077	41 685	48 261	58 324	20.9%
Industrial wastes		8 316	8 383	8 934	23 704	12 334	9 778p	-20.7%
Total net generation		2 661 786	2 698 221	2 774 696	2 857 311	2 865 421	2 964 662	3.5%
<b>Imports and exports</b>								
Total imports		196 448	224 455	259 872	257 016	281 735	287 447	2.0%
Total exports		194 141	210 430	234 942	243 939	260 003	282 735	8.7%
<b>Consumption and losses</b>								
Consumption of the energy branch		266 741	268 695	268 105	266 569	273 489	278 594	1.9%
<i>of which:</i>								
Consumption for pumped-storage		9 231	9 929	13 721	10 322	13 874	13 168p	-5.1%
Network losses		189 708	188 656	200 603	197 941	195 427	201 074	2.9%
Final energy consumption		2 337 153	2 379 414	2 457 791	2 530 457	2 540 619	2 611 543	2.8%
<i>of which:</i>								
Industry		977 462	994 247	1 042 091	1 058 609	1 060 814	1 073 821	1.2%
<i>among which:</i>								
Iron&steel industry		118 452	117 066	126 517	124 083	119 586	122 059	2.1%
Non-ferrous metals		69 365	70 682	72 973	77 391	77 445	78 777	1.7%
Chemical industry		190 224	190 306	194 222	191 274	191 606	192 496p	0.5%
Non-met. mineral prod.		72 819	75 128	75 534	77 720	77 829	80 130	3.0%
Food, drink, tobacco		91 657	93 654	97 049	98 177	100 327	101 546p	1.2%
Pulp, paper and print		122 638	125 258	130 927	132 293	133 953	136 149	1.6%
Engineering & metal		137 015	138 774	142 059	143 889	144 848	146 731p	1.3%
Other industries		122 971	132 309	149 259	160 550	162 325	163 566p	0.8%
Transport		66 933	66 757	68 802	68 485	69 302	70 492	1.7%
Services & households etc.		1 292 758	1 318 410	1 346 898	1 403 363	1 410 503	1 467 230	4.0%
<i>among which:</i>								
Households		679 385	690 405	694 830	719 626	724 327	752 070p	3.8%


## 3.2 Electrical capacity, fuel inputs and heat

	EU-25							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	637 551	650 683	663 218	669 870	684 778	696 146p	1.7%
<b>by source:</b>								
Conventional thermal		372 312	379 683	387 343	388 744	392 309	404 576p	3.1%
<i>of which:</i>								
Steam		297 711	298 549	298 713	294 539	:	:	:
Gas turbine		25 074	26 287	26 586	26 988	:	:	:
Combined cycle		33 141	37 471	48 728	53 004	:	:	:
Internal combustion		7 605	7 939	9 507	9 416	:	:	:
Nuclear		132 597	134 164	133 738	133 769	135 994	134 725	-0.9%
Hydro		125 875	127 326	128 318	129 578	132 960	128 477p	-3.4%
<i>among which:</i>								
Pumped storage		36 257	35 907	34 885	34 925	30 555	30 191p	-1.2%
Wind		6 208	8 913	13 215	17 192	22 835	27 688p	21.3%
Geothermal		559	597	604	587	680	680	0.0%
Other		-	-	-	-	-	-	-
<b>by producer type:</b>								
Public system		580 031	588 736	616 801	622 765	636 877	646 594p	1.5%
Autoproducers		57 820	57 815	46 624	47 260	48 405	50 205p	3.7%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	352 204p	356 405	364 573	369 156p	380 566p	401 198p	5.4%
<i>among which:</i>								
Hard coal		144 681	139 187	146 258	147 031	147 897	156 973	6.1%
Lignite and peat		64 823	63 020	65 370	68 122	69 229	69 507	0.4%
Petroleum products		43 166	41 979	37 299	35 870	36 366p	33 601p	-7.6%
Natural gas		74 842	86 104	88 894	91 049	97 835	107 611	10.0%
Renewables		14 414	15 769	15 962	16 770	18 504	23 206	25.4%
Heating plants		17 053	18 846	18 288	16 989	16 045	15 968	-0.5%
<i>among which:</i>								
Hard coal		5 458	5 516	5 074	4 886	4 655	4 374	-6.0%
Lignite and peat		723	621	578	272	341	381	11.8%
Petroleum products		2 867	2 134	2 140	2 224	1 557	1 422	-8.7%
Natural gas		5 130	7 280	7 346	6 357	6 324	6 286	-0.6%
Renewables		2 454	2 625	2 461	2 777	2 741	3 074	12.2%
<b>Heat production and consumption</b>								
Total heat production	TJ	43 018p	44 840p	50 530p	53 070p	51 891p	52 936p	2.0%
<i>among which: in heating plants</i>		13 947p	16 090p	15 012p	15 327p	14 495p	14 185p	-2.1%
Heat consumption		37 122p	39 073p	44 333p	46 676p	45 676p	46 891p	2.7%
<i>of which: in industry</i>		7 477p	8 285p	9 098p	9 352p	9 554p	10 892p	14.0%
in households and services		29 645p	30 788p	35 235p	37 324p	36 122p	35 999p	-0.3%
<i>among which: in households</i>		19 604p	19 541p	27 407p	29 419p	28 611p	28 473p	-0.5%

## 4.1 Crude oil and feedstocks

 eurostat	in 1 000 t	EU-25						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		161 567	167 709	160 223	149 393	152 037	142 537	-6.2%
Total imports		624 444	590 909	613 252	613 006	602 503	618 020	2.6%
Total exports		99 828	110 524	116 754	104 688	107 877	96 519	-10.5%
Stock changes		-4 574	1 257	1 140	-2 015	254	-1 524	-700.0%
Refinery intake		726 568	692 852	707 240	705 905	702 495	714 656	1.7%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		:	:	:	:	:	:	:
Near and Middle East		:	:	:	:	:	:	:
Africa		:	:	:	:	:	:	:
<i>by country of origin:</i>								
Algeria		:	:	:	:	:	:	:
Nigeria		:	:	:	:	:	:	:
Saudi Arabia		:	:	:	:	:	:	:
Kuwait		:	:	:	:	:	:	:
United Arab Emirates		:	:	:	:	:	:	:
Norway		:	:	:	:	:	:	:
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	:	:	:	:	:	:	:
<i>among which:</i>								
Cracking and others		:	:	:	:	:	:	:
Reforming		:	:	:	:	:	:	:


## 4.2 Petroleum products

 eurostat	EU-25							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	720 493	682 988	695 508	696 111	692 312	705 754		1.9%
<i>among which:</i>								
Motor spirit	154 837	145 467	143 298	145 438	146 860	147 341		0.3%
Kerosene and jet fuel	46 049	46 128	44 824	42 569	41 234	43 079		4.5%
Naphtha	43 448	40 830	44 020	42 943	39 126	41 788		6.8%
Gas/diesel oil	248 695	237 017	245 577	248 895	248 125	253 793		2.3%
Residual fuel oil	128 380	115 682	117 505	113 752	109 017	110 160		1.0%
Total imports	218 941	222 948	232 727	242 551	248 296	251 203p		1.2%
Total exports	205 290	198 340	210 010	210 100	213 724	222 781		4.2%
Bunkers	43 510	41 963	44 332	45 882	46 803	47 160p		0.8%
Stock changes	-4 890	9 221	-5 666	1 886	2 919	-2 181		-174.7%
Gross inland consumption	-34 032	-6 987	-25 945	-10 417	-7 938	-19 772p		-149.1%
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	:	:	:	:	:	:	:	:
United Kingdom	:	:	:	:	:	:	:	:
Norway	:	:	:	:	:	:	:	:
OPEC	:	:	:	:	:	:	:	:
Imports by product								
<i>among which:</i>								
Motor spirit	:	:	:	:	:	:	:	:
Kerosene and jet fuel	:	:	:	:	:	:	:	:
Gas/diesel oil	:	:	:	:	:	:	:	:
Residual fuel oil	:	:	:	:	:	:	:	:
Exports by product								
<i>among which:</i>								
Motor spirit	:	:	:	:	:	:	:	:
Kerosene and jet fuel	:	:	:	:	:	:	:	:
Gas/diesel oil	:	:	:	:	:	:	:	:
Residual fuel oil	:	:	:	:	:	:	:	:
<b>Consumption</b>								
Inputs to electricity plants	45 023	43 069	38 745	37 316	37 907p	35 051p		-7.5%
Inputs to heat plants	2 973	2 209	2 217	2 309	1 630	1 484		-9.0%
Non-energy use	91 627	90 991	92 718	90 165	89 280p	89 284p		0.0%
Final energy consumption	462 839	464 124	460 216	472 242	467 043p	476 429p		2.0%
Industry								
<i>among which by product</i>								
Gas/diesel oil	13 709	12 641	12 958	13 904	13 358p	14 411p		7.9%
Residual fuel oil	21 325	19 915	17 156	17 127	16 678p	17 293p		3.7%


Industry							
<i>among which by sector:</i>							
Iron&steel industry	4 034	3 514	3 467p	3 151	2 865p	2 811p	-1.9%
Non-ferrous metals	1 384	1 432	1 615p	1 135	1 108p	1 071p	-3.3%
Chemical industry	6 670	5 828	5 617p	9 526	7 589p	9 345p	23.1%
Non-met. mineral prod.	11 498	12 709	12 441p	12 722	12 428p	12 964p	4.3%
Food, drink, tobacco	5 421	5 076	4 795p	4 915	5 017p	4 915p	-2.0%
Pulp, paper and print	2 449	2 408	2 319p	2 283	2 330p	2 302p	-1.2%
Engineering & metal	3 760	3 636	3 485p	3 510	3 568p	3 636p	1.9%
Other industries	12 516	10 984	10 893p	11 666	10 661p	12 678p	18.9%
Transport	307 112	316 012	317 479	319 587	322 538p	326 756p	1.3%
<i>among which:</i>							
Motor spirit	128 015	129 032	123 442	120 928	119 251p	115 640	-3.0%
Jet fuel	39 479	42 033	43 998	42 578	42 181p	43 378p	2.8%
Diesel oil	135 183	140 620	146 159	152 014	156 870p	163 232p	4.1%
Services & households etc.	105 080	99 788	95 163	101 037	95 069p	96 916p	1.9%
<i>among which:</i>							
Gas oil	86 495	80 912	77 655	83 203	77 654p	78 613p	1.2%
Residual fuel oil	4 322	4 535	3 399	3 320	3 213p	3 493p	8.7%
<b>Stocks at end of period</b>							
Crude oil and feedstocks	61 983	60 446	59 126	56 677	61 243	62 770	2.5%
Petroleum products	105 343	95 351	101 238	99 729	96 355	98 599	2.3%




## 5. Natural gas

 eurostat	EU-25						
	in TJ (GCV)						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>							
Primary production	8 751 710	8 921 517	9 149 433	9 181 699	9 009 635	8 810 510	-2.2%
Total imports	9 263 242	10 197 573	10 978 654	11 225 391	12 128 070	12 785 218	5.4%
Total exports	1 716 662	1 926 849	2 276 184	2 592 501	2 769 987	2 729 432	-1.5%
Stock changes	94 173	-162 869	-318 664	225 499	-270 342	117 630	143.5%
Gross inland consumption	16 392 463	17 029 372	17 533 239	18 040 088	18 097 376	18 983 926	4.9%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
CIS	:	:	:	:	:	:	:
Algeria	:	:	:	:	:	:	:
Norway	:	:	:	:	:	:	:
<b>Consumption</b>							
Inputs to electricity plants	3 481 661	4 005 546	4 135 353	4 235 585	4 551 297	5 006 043	10.0%
Inputs to heat plants	238 667	338 652	341 734	295 713	294 199	292 444	-0.6%
Consumption of energy branch	553 369	558 722	576 725	671 385	640 371	596 351	-6.9%
Distribution losses	157 649	147 347	181 449	140 862	96 828p	108 353	11.9%
Non-energy use	642 995	621 006	650 664	616 321	578 009	599 149	3.7%
Industry	4 154 790	4 241 108	4 570 546	4 454 950	4 500 220	4 595 004	2.1%
<i>among which:</i>							
Iron&steel industry	465 699	464 257	478 524	493 174	481 316	476 484	-1.0%
Non-ferrous metals	122 960	122 887	128 257	133 199	139 926	135 608	-3.1%
Chemical industry	888 212	935 334	990 097	949 144	944 812	991 772	5.0%
Non-met. mineral prod.	672 914	692 344	744 957	771 338	738 939	801 155	8.4%
Food, drink, tobacco	554 792	576 397	605 451	607 925	651 235	659 736	1.3%
Pulp, paper and print	407 233	413 199	411 654	411 360	421 636	449 214	6.5%
Engineering & metal	483 350	479 314	503 566	521 140	500 650	532 251	6.3%
Other industries	361 596	362 135	405 167	362 738	416 501	336 338	-19.2%
Transport	13 911	14 224	16 183	19 640	20 024	21 026	5.0%
Services & households etc.	6 971 163	6 982 472	7 004 396	7 455 773	7 237 382	7 779 146	7.5%
<i>among which:</i>							
Households	4 636 001	4 720 141	4 756 778	5 033 855	4 924 370	5 277 176	7.2%
Services	2 335 162	2 262 331	2 247 618	2 421 918	2 313 012	2 501 970	9.1%


## 6.1 Hard coal


 eurostat	EU-25							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	291 181	267 938	253 017	246 993	239 280	236 170	-1.3%	
Total imports	169 680	165 368	182 956	205 778	194 379	203 295	4.6%	
Total exports	49 426	43 190	43 664	51 356	41 923	36 174	-13.7%	
Stock changes	11 315	1 765	13 444	2 103	2 778	7 723	178.0%	
Gross inland consumption	425 300	394 675	408 476	405 240	396 556	413 362	4.2%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	:	:	:	:	:	:	:	
Poland	:	:	:	:	:	:	:	
CIS	:	:	:	:	:	:	:	
Australia	:	:	:	:	:	:	:	
South Africa	:	:	:	:	:	:	:	
Colombia	:	:	:	:	:	:	:	
<b>Consumption</b>								
Inputs to electricity plants	265 707	257 728	273 241	274 073	275 187	289 922	5.4%	
Inputs to heat plants	10 605	10 141	9 326	9 538	9 012	8 544	-5.2%	
Consumption of energy branch	2 672	2 485	1 841	1 834	1 195	1 317	10.2%	
Industry	39 614	36 040	37 146	34 796	32 341	30 654	-5.2%	
<i>among which:</i>								
Iron&steel industry	12 465	12 194	12 476	12 725	12 770	11 580	-9.3%	
Non-ferrous metals	568	662	410	628	504	422	-16.3%	
Chemical industry	4 819p	4 799	5 339	5 301	5 300	5 402	1.9%	
Non-met. mineral prod.	10 098p	8 878	8 380	7 734	6 695	6 283	-6.2%	
Food, drink, tobacco	3 791	3 338	3 197	3 008	2 991	2 861	-4.3%	
Pulp, paper and print	2 041p	1 910	1 806	1 862	1 701	1 693	-0.5%	
Engineering & metal	1 559	1 190	1 298	1 065	922	1 047	13.6%	
Other industries	1 536p	971	1 925	818	717	757	5.6%	
Services & households etc.	21 496	21 267	17 268	18 081	16 189	15 363	-5.1%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	68.9	64.0	57.3	51.3	40.2	:	:	
Number of active hard coal mines (end of year)	149	146	127	119	116	:	:	

## 6.2 Coal derivatives and peat

 eurostat	EU-25						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	55 931	50 908	51 792	49 175	46 031	48 120	4.5%
Patent Fuel	1 035	1 005	857	768	690	609	-11.7%
Lignite and peat	344 105	344 461	346 529	357 888	368 531	368 598	0.0%
Brown coal briquettes	6 607	6 236	6 115	6 039	5 839	5 809	-0.5%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	450 788p	421 144	414 171	376 620	348 598	355 210	1.9%
Blast-furnace gas	588 965	567 701	599 079	553 559	560 502	575 495	2.7%
Gasworks gas	25 543	22 383	25 882	21 926	21 956	24 014	9.4%
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	35 364	33 287	34 530	32 869	31 589	32 037	1.4%
<i>among which:</i>							
Iron & steel industry	29 209	27 465	29 196	28 503	27 302	28 020	2.6%
Services & households	2 597	2 375	1 910	1 717	1 536	1 313	-14.5%
Patent Fuel	1 176	987	888	772	719	633	-12.0%
<i>among which:</i>							
Services & households	1 144	969	861	734	693	615	-11.3%
Lignite and peat	7 429	5 886	5 567	5 253	5 386	3 585	-33.4%
<i>among which:</i>							
Industry	4 222	3 097	2 846	3 176	2 896	1 904	-34.3%
Services & households	3 207	2 789	2 709	2 063	2 490	1 673	-32.8%
Brown coal briquettes	5 269	4 847	4 652	4 311	3 994	4 032	1.0%
<i>among which:</i>							
Industry	2 482	2 433	2 462	2 265	2 088	2 113	1.2%
Services & households	2 787	2 414	2 190	2 046	1 906	1 919	0.7%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	197 241p	163 839	161 831	154 406	119 545	127 506	6.7%
Blast-furnace gas	261 390	237 895	255 850	242 629	235 707	245 782	4.3%
Gasworks gas	17 596	12 628	9 618	4 413	4 012	5 055	26.0%
Inputs to electricity plants	338 874p	358 094	368 237	334 584	342 642	352 799	3.0%
Inputs to heat plants	11 589	23 694	22 688	13 066	10 672	10 480	-1.8%
Consumption of energy branch	219 855p	198 412	200 882	178 299	183 193	191 810	4.7%
Consumption in industry	465 891p	407 218	418 926	397 290	355 476	374 574	5.4%

## 7. Renewable energy sources

 eurostat	EU-25							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
Hydro (excl. pumping)	88 091	89 554	92 964	96 887	94 961p	103 112	8.6%	
Wind	27 674	27 525	29 000	30 609	25 559	24 949	-2.4%	
Solar	1 038	1 221	1 913	2 319	3 070	3 805	23.9%	
Geothermal	361	372	417	463	498p	619	24.4%	
Biomass	4 028	4 217	3 322	3 420	3 788p	5 275	39.3%	
	54 991	56 218	58 312	60 076	62 046	68 463	10.3%	
	<i>among which:</i>							
Wood, wood-waste	46 594	47 052	47 921	49 180	50 281p	53 996	7.4%	
Municipal solid waste	6 271	6 826	7 438	7 731	7 947p	8 867	11.6%	
Biogas	1 759	1 916	2 284	2 624	2 777p	3 392	22.2%	
Gross inland consumption	88 199	89 714	93 374	97 379	95 346p	103 401	8.4%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	3 684	3 873	2 955	3 053	3 348	4 699	40.3%	
Biomass	13 184	14 521	15 468	16 494	17 896	21 581	20.6%	
	<i>among which:</i>							
Wood, wood-waste	5 861	6 578	6 684	7 389	8 417p	10 586	25.8%	
Municipal waste	:	:	:	7 066	7 219p	8 102	12.2%	
Biogas	1 347	1 502	1 906	2 216	2 260p	2 857	26.4%	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	42 693	42 273	43 950	44 853	45 458p	48 162	5.9%	
	<b>by sector:</b>							
Industry	14 670	14 589	15 427	15 212	15 695	15 179	-3.3%	
Services & households etc.	27 663	27 279	27 885	28 985	28 807p	30 931	7.4%	
Transport	360	405	637	655	957	2 052	114.5%	
	<b>by source:</b>							
Biomass	41 986	41 556	43 169	44 033	44 550	47 007	5.5%	
	<i>among which:</i>							
Wood, wood-waste	40 907	40 312	41 227	42 269	42 307p	43 777	3.5%	
Municipal waste	128	153	561	653	728	729	0.3%	
Biogas	350	372	374	407	516p	408	-20.9%	
Geothermal	352	352	373	365	440p	575	30.6%	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	61	74	109	169	256	436	70.3%	
Hydro with installed capacity < 1 MW	:	:	:	9 104	9 269	10 650	14.9%	
Hydro with installed capacity > 1 & <10 MW	:	:	:	32 195	30 550	22 992	-24.7%	
Hydro with installed capacity > 10 MW	:	:	:	315 413	254 102	260 716	2.6%	
Wood, Wood-waste	:	:	:	20 594	24 184	30 411	25.7%	
Municipal waste	11 454	11 710	13 516	13 846	16 136	17 999	11.5%	
Biogas	:	:	:	6 341	9 338	10 056	7.7%	

	EU-25						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	92	124	180	274	342	519	51.8%
Hydro with installed capacity < 1 MW	:	:	:	2 324	2 286	:	
Hydro with installed capacity > 1 & <10 MW	:	:	:	7 983	8 352	:	
Hydro with installed capacity > 10 MW	:	:	:	83 415	86 356	:	
Wood, Wood-waste	5 131	5 844	5 801p	5 508p	5 732p	:	
Municipal waste	1 912	2 118	2 363	2 470	2 559p	3 173p	24.0%
Biogas	702	954	1 209	1 507	1 609	1 881	16.9%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	451	523	815	986	1 322	2 606	97.1%
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	9 032	9 213	10 489	12 094	13 198	14 415	9.2%


# 1. Energy economy

## Key figures and energy indicators

EU-15	EU-15						
	1998	1999	2000	2001	2002	2003	
<b>Energy statistics</b>							
Primary energy production	1000 toe	751 495	765 564	756 117	753 681	751 315p	741 925
Net energy imports		723 888	705 772	742 189	770 091	767 989	807 303
Net oil imports		489 371	457 315	472 533	494 866	480 586	500 695
Net gas imports		131 462	147 287	155 263	152 397	167 239	180 150
Gross inland energy consumption		1 439 282	1 441 591	1 455 649	1 488 380p	1 481 152p	1 513 568
Final energy consumption		942 295p	947 530p	965 882p	988 722p	976 631p	1 003 507p
Industry		260 951p	261 916p	272 937p	275 305p	272 105p	277 610p
Transport		299 663	306 901	310 112	311 553	314 222p	316 804p
Services and households etc.		381 681p	378 713p	382 834p	401 864p	390 304p	409 093p
Gross electricity generation	GWh	2 492 799	2 532 975	2 600 998	2 674 544	2 679 818	2 766 448
Final electricity consumption		2 113 060	2 157 258	2 229 599	2 297 066	2 306 493	2 370 610
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	7 159 493	7 366 739	7 639 832	7 778 203	7 861 086	7 931 888
Population	1000 per.	374 066	375 017	376 204	377 654	378 361	380 379
Industry added value	Mio EUR	:	:	:	:	:	:
Total imports (current prices)	Mio EUR	2 337 141	2 515 079	2 786 093	2 846 921	2 877 448	2 947 925
among which:							
All energy commodities		90 229	113 146	213 774	208 349	200 363	212 978
Oil products		64 995	88 794	174 222	157 567	150 285	157 708
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	201.0	195.7	190.5	191.4	188.4	190.8
Final energy consumption / GDP(95)		131.6	128.6	126.4	127.1	124.2	126.5
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 848	3 844	3 869	3 941	3 915	3 979
Final energy consumption / capita		2 519	2 527	2 567	2 618	2 581	2 638
Household consumption / capita		647	639	657	688	666	689
Electricity consumption / capita	kWh/cap.	5 797	5 905	6 049	6 134	6 291	6 431
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	48.9	47.6	49.6	50.3	50.3	51.8
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	65.5	65.7	66.4	66.4	65.9	66.3
Efficiency of thermal power stations		45.2	45.3	48.2	48.7	48.0	47.6

## 2. Energy balance

### Principal aggregates by product

 eurostat	EU-15						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	751 495	765 564	756 117	753 681	751 315p	741 925	-1.2%
<i>among which:</i> Hard coal	66 363	59 761	50 826	45 735	43 171	41 747	-3.3%
Lignite and peat	47 259	47 612	47 607	51 201	53 872	52 567	-2.4%
Crude oil	161 201	167 438	159 436	148 373	151 349	141 479	-6.5%
Natural Gas	181 538	185 708	190 581	191 124	187 483	183 180	-2.3%
Nuclear heat	215 500	223 709	222 846	229 878	230 648	231 703	0.5%
Hydro-electricity	26 268	26 195	27 645	29 194	24 144	23 877	-1.1%
Biomass	47 846	48 781	50 841	51 870	53 079	57 749	8.8%
<b>Imports</b>							
Total	1 078 993	1 070 277	1 134 051	1 157 752	1 162 296	1 197 743	3.0%
<i>among which:</i> Hard coal	102 785	99 545	110 699	123 615	116 338	121 892	4.8%
Crude oil and feedstocks	584 813	552 921	573 401	571 717	560 565	575 622	2.7%
Petroleum products	199 871	204 660	216 795	225 079	228 790	231 260	1.1%
Natural Gas	168 328	188 670	204 093	208 089	226 747	238 740	5.3%
Electricity	14 482	16 712	18 971	18 629	20 367	20 361	0.0%
<b>Exports</b>							
Total	355 105	364 505	391 862	387 661	394 307	390 440	-1.0%
<i>among which:</i> Crude oil and feedstocks	100 996	111 886	117 803	105 249	108 892	97 387	-10.6%
Petroleum products	194 317	188 381	199 859	196 681	199 877	208 799	4.5%
Natural gas	36 866	41 383	48 830	55 692	59 509	58 590	-1.5%
Electricity	13 355	14 674	15 328	15 678	16 408	17 520	6.8%
<b>Gross inland consumption</b>							
Total	1 439 282	1 441 591	1 455 649	1 488 380p	1 481 152p	1 513 568	2.2%
<i>among which:</i> Solid fuels	223 254	207 012	214 790	217 650	217 262	222 526	2.4%
Crude oil and petrol. prod.	601 592	596 549	588 320	600 093	592 051	596 171	0.7%
Natural gas	315 531	329 187	339 290	347 503	349 573	366 092	4.7%
Nuclear Energy	215 500	223 709	222 846	229 878	230 648	231 703	0.5%
Renewables	79 938	81 216	84 698	87 894	85 214p	92 110	8.1%
<b>Transformation input</b>							
Total	1 246 484p	1 224 963	1 245 543	1 246 304p	1 254 657p	1 285 643p	2.5%
<i>among which:</i> Crude oil and feedstocks	684 899	652 813	665 466	661 054	657 749	669 904	1.8%
Petroleum products	40 602	39 581	36 324	34 799	35 171p	32 574p	-7.4%
Hard coal	147 139	138 199	144 087	141 077	141 364	148 696	5.2%
Lignite and peat	47 903	46 460	49 386	52 134	53 790	52 865	-1.7%
Renewables	12 522	13 721	14 683	15 546	16 860	20 421	21.1%
<b>Transformation output</b>							
Total	937 401p	905 062p	927 214p	927 177p	925 678p	945 768p	2.2%
<i>among which:</i> Electricity	185 334	188 368	192 040	196 225	200 692	207 488	3.4%
Heat	23 993p	27 072p	34 054p	34 857p	34 708p	35 079p	1.1%



in 1 000 toe

**EU-15**

**1998 1999 2000 2001 2002 2003 03/02**

**Final energy consumption**

Total	942 295p	947 530p	965 882p	988 722p	976 631p	1 003 507p	2.8%
among which: Solid fuels	41 969	37 990	36 859	36 697	34 346	32 545	-5.2%
Petroleum products	437 582	438 210	435 449	446 456	440 360p	448 267p	1.8%
Natural Gas	215 031	217 829	225 638	231 108	227 665	240 388	5.6%
Renewables	35 572	35 296	36 762	37 001	36 988	38 096	3.0%
Electricity	181 690	185 491	191 711	197 512	198 323	203 836	2.8%

**Final energy consumption by sector**

**Industry**

Total	260 951p	261 916p	272 937p	275 305p	272 105p	277 610p	2.0%
among which: Solid fuels	35 072	32 388	32 126	31 844	30 309	29 190	-3.7%
Petroleum Products	43 520	41 943	41 387	45 415	42 935p	46 454p	8.2%
Natural Gas	80 583	83 144	89 262	87 021	87 950	89 877	2.2%
Renewables	13 543	13 532	14 417	13 847	14 112	13 578	-3.8%
Electricity	76 122	77 930	81 867	83 252	83 408	84 113	0.8%

**Transport**


Total	299 663	306 901	310 112	311 553	314 222p	316 804p	0.8%
among which: Motor spirit	122 866	123 159	118 383	115 941	114 435p	110 660	-3.3%
Diesel oil	127 616	132 155	138 260	143 472	147 898p	152 816p	3.3%
Jet fuel	39 379	42 007	43 907	42 401	41 939p	43 232p	3.1%
Electricity	4 960	4 974	5 128	5 204	5 217	5 302	1.6%

**Services&households**


Total	381 681p	378 713p	382 834p	401 864p	390 304p	409 093p	4.8%
among which: Solid fuels	6 895	5 602	4 725	4 828	4 014	3 354	-16.4%
Gas oil	82 510	77 105	73 427	78 797	73 224p	74 657p	2.0%
Natural Gas	134 153	134 383	136 035	143 674	139 295	150 070	7.7%
Renewables	21 682	21 373	21 740	22 535	21 945	23 448	6.8%
Electricity	100 608	102 587	104 715	109 057	109 697	114 420	4.3%
Heat	17 398p	18 857p	24 619p	25 105p	24 649p	24 808p	0.6%




### 3.1 Electricity balance

 eurostat	EU-15						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	2 492 799	2 532 975	2 600 998	2 674 544	2 679 818	2 766 448	3.2%
<i>among which:</i>							
Hydro	327 182	329 035	345 332	365 509	310 190	309 351	-0.3%
Wind	11 271	14 210	22 240	26 958	35 633	44 086	23.7%
Geothermal	4 272	4 483	4 785	4 612	4 758	5 431	14.1%
Nuclear	854 182	867 244	863 915	891 162	894 147	898 234	0.5%
Conventional thermal	1 295 892	1 318 003	1 364 726	1 386 303	1 435 090	1 509 346	5.2%
<i>of which:</i>							
Hard coal	480 711	451 473	477 235	476 293	485 953	524 786p	8.0%
Lignite and peat	188 227	184 392	196 557	206 943	202 146	214 333p	6.0%
Petroleum products	191 624	181 407	163 620	154 389	171 633	150 451p	-12.3%
Natural gas	366 982	427 459	452 012	456 843	489 676	526 083p	7.4%
Derived gases	29 648	29 970	27 850	28 416	27 224	27 516p	1.1%
Biomass	30 447	35 132	39 182	40 524	47 117	57 000	21.0%
Industrial wastes	8 253	8 170	8 270	22 895	11 341	9 177p	-19.1%
Total net generation	2 368 072	2 408 842	2 475 748	2 548 781	2 553 407	2 639 803	3.4%
<b>Imports and exports</b>							
Total imports	168 426	194 358	220 635	216 657	236 873	236 793	0.0%
Total exports	155 314	170 663	178 259	182 330	190 823	203 762	6.8%
<b>Consumption and losses</b>							
Consumption of the energy branch	216 649	218 284	219 683	217 990	224 359	226 736	1.1%
<i>of which:</i>							
Consumption for pumped-storage	8 059	8 687	12 576	9 259	12 910	12 065p	-6.5%
Network losses	157 041	157 743	170 272	167 847	165 814	170 967	3.1%
Final energy consumption	2 113 060	2 157 258	2 229 599	2 297 066	2 306 493	2 370 610	2.8%
<i>of which:</i>							
Industry	885 301	906 326	952 117	968 219	970 035	978 233	0.8%
<i>among which:</i>							
Iron&steel industry	103 446	102 726	111 444	110 692	107 427	108 998	1.5%
Non-ferrous metals	63 457	64 725	66 866	70 093	69 349	69 624	0.4%
Chemical industry	173 053	173 260	177 011	174 102	174 513	174 922p	0.2%
Non-met. mineral prod.	64 206	66 710	67 269	69 572	69 686	71 417	2.5%
Food, drink, tobacco	82 084	84 880	88 311	89 113	90 875	92 151p	1.4%
Pulp, paper and print	116 364	118 921	124 515	125 584	127 102	129 552	1.9%
Engineering & metal	124 670	127 427	130 270	131 469	132 703	133 696p	0.7%
Other industries	112 483	122 471	138 881	149 984	151 266	151 926p	0.4%
Transport	57 690	57 850	59 643	60 519	60 677	61 667	1.6%
Services & households etc.	1 170 069	1 193 082	1 217 839	1 268 328	1 275 781	1 330 710	4.3%
<i>among which:</i>							
Households	620 673	631 797	636 126	659 760	664 057	689 571p	3.8%


## 3.2 Electrical capacity, fuel inputs and heat


	EU-15							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	561 866	574 102	586 420	591 785	605 721	615 164p	1.6%
<i>by source:</i>								
Conventional thermal		316 010	322 592	330 493	330 876	334 538	346 004p	3.4%
<i>of which:</i>								
Steam		246 351	246 296	246 853	242 844	:	:	
Gas turbine		24 367	25 519	25 528	25 628	:	:	
Combined cycle		32 777	37 042	47 835	52 018	:	:	
Internal combustion		6 989	7 899	9 473	9 384	:	:	
Nuclear		123 130	124 700	123 831	123 847	125 072	122 803	-1.8%
Hydro		115 962	117 304	118 283	119 304	122 650	118 053p	-3.7%
<i>among which:</i>								
Pumped storage		32 946	32 596	31 574	31 614	27 244	26 880p	-1.3%
Wind		6 205	8 909	13 209	17 171	22 781	27 624p	21.3%
Geothermal		559	597	604	587	680	680	0.0%
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		508 742	516 857	544 672	550 044	563 125	571 223p	1.4%
Autoproducers		53 422	53 082	41 890	41 829	43 074	44 563p	3.5%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	286 780p	290 493	298 197	300 838p	314 192p	331 396p	5.5%
<i>among which:</i>								
Hard coal		109 148	103 170	108 681	108 902	111 056	118 444	6.7%
Lignite and peat		44 828	43 546	46 552	49 024	50 729	49 852	-1.7%
Petroleum products		38 537	37 939	34 121	32 658	33 567p	30 936p	-7.8%
Natural gas		71 031	81 554	84 035	85 173	91 678	100 672	9.8%
Renewables		14 134	15 327	15 535	16 254	17 957	22 615	25.9%
Heating plants		5 329	7 883	8 394	8 347	7 904	7 843	-0.8%
<i>among which:</i>								
Hard coal		61	537	553	499	724	520	-28.2%
Lignite and peat		179	169	157	188	230	207	-10.2%
Petroleum products		1 183	820	1 430	1 541	986	969	-1.7%
Natural gas		1 810	3 773	3 818	3 433	3 402	3 338	-1.9%
Renewables		2 064	2 259	2 097	2 338	2 243	2 498	11.3%
<b>Heat production and consumption</b>								
Total heat production	TJ	23 993p	27 072p	34 054p	34 857p	34 708p	35 079p	1.1%
<i>among which: in heating plants</i>								
		6 284p	9 156p	8 116p	8 064p	7 671p	7 476p	-2.6%
Heat consumption		21 133p	24 207p	30 811p	31 661p	31 551p	32 342p	2.5%
<i>of which: in industry</i>								
		3 735p	5 350p	6 192p	6 556p	6 902p	7 534p	9.2%
<i>in households and services</i>								
		17 398p	18 857p	24 619p	25 105p	24 649p	24 808p	0.6%
<i>among which: in households</i>								
		9 795p	9 881p	18 877p	19 447p	19 471p	19 594p	0.6%

## 4.1 Crude oil and feedstocks


 eurostat	in 1 000 t	EU-15						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		158 867	165 016	157 370	146 377	148 975	139 427	-6.4%
Total imports		581 962	550 562	571 129	569 948	559 975	574 532	2.6%
Total exports		99 460	110 185	116 187	103 761	107 102	95 920	-10.4%
Stock changes		-4 301	1 334	1 500	-2 666	440	-843	-291.6%
Refinery intake		680 632	649 082	661 953	658 068	655 776	667 477	1.8%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		277 679	238 486	237 703	203 790	185 852	203 778	9.6%
Near and Middle East		191 074	160 780	154 897	136 040	121 228	122 662	1.2%
Africa		109 905	99 689	107 034	109 971	98 646	106 162	7.6%
<i>by country of origin:</i>								
Algeria		17 601	16 700	20 932	19 095	17 878	18 606	4.1%
Nigeria		22 336	19 711	22 407	25 723	18 440	23 186	25.7%
Saudi Arabia		86 031	61 025	65 143	57 496	53 144	61 535	15.8%
Kuwait		10 876	7 662	9 768	7 990	6 384	6 243	-2.2%
United Arab Emirates		624	-	147	354	-	-	
Norway		113 846	107 459	114 798	108 121	102 827	106 404	3.5%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	664 170	664 600	667 440	:	:	:	
<i>among which:</i>								
Cracking and others		266 290	270 250	278 230	:	:	:	
Reforming		90 010	89 180	89 550	:	:	:	

## 4.2 Petroleum products


 eurostat	EU-15						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	674 023	638 813	650 474	649 678	647 214	659 363	1.9%
<i>among which:</i>							
Motor spirit	145 775	136 430	133 628	135 204	136 677	136 994	0.2%
Kerosene and jet fuel	44 963	45 156	43 482	40 839	39 570	41 283	4.3%
Naphtha	40 548	38 189	41 286	40 308	36 563	39 123	7.0%
Gas/diesel oil	232 628	221 493	229 794	232 140	231 749	236 596	2.1%
Residual fuel oil	118 657	106 769	109 719	105 901	102 630	103 705	1.0%
Total imports	201 008	206 050	218 301	226 363	230 527	233 327	1.2%
Total exports	193 777	187 699	199 429	196 290	199 503	208 441	4.5%
Bunkers	42 937	40 967	43 622	44 998	45 925	46 305	0.8%
Stock changes	-4 206	8 568	-5 114	2 036	2 520	-1 823	-172.3%
Gross inland consumption	-39 361	-13 102	-28 753	-12 316	-11 430	-22 629	-98.0%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	40 588	39 186	40 576	37 414	34 573	34 280	-0.8%
United Kingdom	20 042	21 208	21 824	20 730	22 086	20 792	-5.9%
Norway	8 046	6 885	6 408	4 612	6 871	7 535	9.7%
OPEC	22 029	22 656	27 911	23 914	25 335	22 957	-9.4%
Imports by product							
<i>among which:</i>							
Motor spirit	26 778	26 194	30 167	27 691	25 480	25 093	-1.5%
Kerosene and jet fuel	12 040	13 868	16 028	19 323	18 975	20 223	6.6%
Gas/diesel oil	67 170	69 006	67 194	77 746	79 143	81 057	2.4%
Residual fuel oil	40 076	38 330	43 933	41 668	47 489	44 103	-7.1%
Exports by product							
<i>among which:</i>							
Motor spirit	44 831	44 508	45 847	43 909	46 112	48 513	5.2%
Kerosene and jet fuel	10 370	11 356	10 408	10 189	9 650	10 407	7.8%
Gas/diesel oil	58 758	57 611	58 780	61 091	62 046	61 296	-1.2%
Residual fuel oil	41 879	35 413	42 105	39 931	39 391	43 385	10.1%
<b>Consumption</b>							
Inputs to electricity plants	40 177	39 382	35 421	33 959	34 935p	32 221p	-7.8%
Inputs to heating plants	1 215	838	1 478	1 597	1 017	994	-2.3%
Non-energy use	84 377	84 088	85 245	83 512	82 837p	83 032p	0.2%
Final energy consumption	429 405	430 049	427 302	438 813	432 969p	440 746p	1.8%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	12 163	11 606	11 778	12 636	12 114p	13 215p	9.1%
Residual fuel oil	18 632	17 493	15 389	15 741	15 141p	15 941p	5.3%

 eurostat	EU-15							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	3 653	3 216	3 212p	3 076	2 731p	2 684p	-1.7%	
Non-ferrous metals	1 356	1 381	1 585p	1 102	1 073p	1 041p	-3.0%	
Chemical industry	5 450	4 626	4 564p	8 298	6 339p	8 221p	29.7%	
Non-met. mineral prod.	10 451	11 800	11 685p	12 099	11 782p	12 205p	3.6%	
Food, drink, tobacco	4 823	4 541	4 273p	4 424	4 502p	4 457p	-1.0%	
Pulp, paper and print	2 324	2 274	2 238p	2 183	2 212p	2 202p	-0.5%	
Engineering & metal	3 567	3 493	3 311p	3 358	3 454p	3 477p	0.7%	
Other industries	11 155	10 122	9 939p	10 786	9 839p	11 867p	20.6%	
<b>Transport</b>	285 554	292 615	295 512	296 884	299 281p	301 761p	0.8%	
<i>among which:</i>								
Motor spirit	116 913	117 191	112 647	110 323	108 890p	105 298	-3.3%	
Jet fuel	38 342	40 901	42 751	41 285	40 835p	42 094p	3.1%	
Diesel oil	126 313	130 805	136 848	142 007	146 388p	151 255p	3.3%	
<b>Services &amp; households etc.</b>	98 383	93 443	88 452	94 102	88 227p	90 302p	2.4%	
<i>among which:</i>								
Gas oil	81 667	76 318	72 677	77 992	72 476p	73 895p	2.0%	
Residual fuel oil	3 917	4 161	3 053	2 997	2 881p	3 020p	4.8%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	58 277	56 644	54 802	53 172	57 558	58 338	1.4%	
Petroleum products	98 972	89 786	95 136	93 456	90 551	92 458	2.1%	


## 5. Natural gas

 eurostat	EU-15						
	in TJ (GCV)						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>							
Primary production	8 445 139	8 639 130	8 865 824	8 891 102	8 721 704	8 521 519	-2.3%
Total imports	7 830 632	8 776 928	9 494 397	9 680 292	10 548 291	11 106 174	5.3%
Total exports	1 715 006	1 925 137	2 271 580	2 590 794	2 768 344	2 725 586	-1.5%
Stock changes	117 724	-177 135	-304 847	185 224	-239 502	128 492	153.6%
Gross inland consumption	14 678 489	15 313 786	15 783 794	16 165 824	16 262 149	17 030 599	4.7%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
CIS	c	c	c	c	c	c	
Algeria	1 846 631	2 109 596	2 187 817	1 901 242	2 022 332	2 100 449	3.9%
Norway	c	c	c	c	c	c	
<b>Consumption</b>							
Inputs to electricity plants	3 304 365	3 793 871	3 909 292	3 962 236	4 264 839	4 683 282	9.8%
Inputs to heat plants	84 222	175 500	177 615	159 691	158 272	155 277	-1.9%
Consumption of energy branch	471 935	482 813	499 275	574 693	545 435	504 144	-7.6%
Distribution losses	103 545	106 582	135 791	99 148	61 932p	67 748	9.4%
Non-energy use	511 059	501 038	511 879	478 830	471 939	462 713	-2.0%
Industry	3 748 725	3 867 846	4 152 462	4 048 233	4 091 430	4 181 064	2.2%
<i>among which:</i>							
Iron&steel industry	415 237	417 469	430 799	441 557	428 691	427 202	-0.3%
Non-ferrous metals	109 227	109 270	113 977	117 307	123 590	118 999	-3.7%
Chemical industry	842 687	898 777	954 266	904 776	903 461	941 724	4.2%
Non-met. mineral prod.	588 673	616 226	662 496	667 651	635 339	697 492	9.8%
Food, drink, tobacco	501 285	527 301	556 403	549 147	585 206	591 480	1.1%
Pulp, paper and print	394 025	400 569	397 085	392 754	403 714	431 733	6.9%
Engineering & metal	448 541	447 216	470 384	481 793	458 184	483 510	5.5%
Other industries	264 658	267 767	277 136	307 009	365 948	295 616	-19.2%
Transport	13 732	14 023	15 841	19 214	19 556	20 518	4.9%
Services & households etc.	6 240 775	6 251 519	6 328 355	6 683 710	6 480 001	6 981 275	7.7%
<i>among which:</i>							
Households	4 174 265	4 245 340	4 304 358	4 536 267	4 438 447	4 754 097	7.1%
Services	1 867 474	1 808 457	1 830 255	1 953 732	1 847 381	2 035 703	10.2%

## 6.1 Hard coal


 eurostat	EU-15							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	108 328	99 978	86 089	78 114	73 702	71 075	-3.6%	
Total imports	156 864	154 981	173 085	195 731	183 693	192 054	4.6%	
Total exports	10 888	9 729	11 765	19 637	11 661	9 292	-20.3%	
Stock changes	8 817	412	8 306	169	4 058	7 249	78.6%	
Gross inland consumption	265 090	247 534	257 326	255 387	250 852	262 219	4.5%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	28 127	20 023	19 607	19 727	13 825	11 564	-16.4%	
Poland	17 329	18 696	19 721	18 449	18 309	16 244	-11.3%	
CIS	2 318	6 483	9 939	17 128	16 827	20 086	19.4%	
Australia	21 483	24 692	28 365	29 122	28 871	30 333	5.1%	
South Africa	35 363	35 191	40 161	48 668	50 433	55 942	10.9%	
Colombia	18 523	18 786	23 050	22 407	18 353	20 667	12.6%	
<b>Consumption</b>								
Inputs to electricity plants	181 319	174 002	183 227	183 226	186 851	199 109	6.6%	
Inputs to heat plants	101	777	793	828	1 167	869	-25.5%	
Consumption of energy branch	231	423	213	243	208	152	-26.9%	
Industry								
<i>among which:</i>								
Iron&steel industry	10 040	10 340	10 436	10 698	11 092	9 823	-11.4%	
Non-ferrous metals	418	527	259	459	381	318	-16.5%	
Chemical industry	2 094p	1 422	611	1 552	1 629	1 704	4.6%	
Non-met. mineral prod.	6 675p	5 807	5 424	5 083	4 500	4 199	-6.7%	
Food, drink, tobacco	664	1 152	989	1 023	934	867	-7.2%	
Pulp, paper and print	1 028p	909	814	868	770	766	-0.5%	
Engineering & metal	122	181	103	135	99	64	-35.4%	
Other industries	624p	298	422	205	173	178	2.9%	
Services & households etc.	5 326	5 104	3 982	4 500	3 471	2 702	-22.2%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	68.9	64.0	57.3	51.3	40.2	:		
Number of active hard coal mines (end of year)	149	146	127	119	116	:		


## 6.2 Coal derivatives and peat

	EU-15						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	39 667	36 657	36 743	34 302	31 503	31 943	1.4%
Patent Fuel	1 035	1 005	857	768	690	609	-11.7%
Lignite and peat	245 226	248 531	252 248	264 068	275 429	270 672	-1.7%
Brown coal briquettes	5 942	5 639	5 653	5 546	5 394	5 331	-1.2%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	320 772p	309 335	292 458	256 807	232 644	227 099	-2.4%
Blast-furnace gas	501 980	493 867	510 776	469 349	476 589	485 089	1.8%
Gasworks gas	8 021	7 059	8 116	3 720	3 434	3 561	3.7%
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	26 707	25 414	26 315	25 433	24 338	24 351	0.1%
<i>among which:</i>							
Iron & steel industry	23 117	21 961	22 860	22 874	21 786	21 993	1.0%
Services & households	1 009	882	838	781	636	400	-37.1%
Patent Fuel	1 176	987	886	771	717	632	-11.9%
<i>among which:</i>							
Services & households	1 144	969	861	734	693	615	-11.3%
Lignite and peat	5 126	3 753	3 286	3 343	3 148	2 182	-30.7%
<i>among which:</i>							
Industry	3 585	2 722	2 347	2 394	2 349	1 405	-40.2%
Services & households	1 541	1 031	939	949	799	777	-2.8%
Brown coal briquettes	4 908	4 499	4 380	4 094	3 778	3 812	0.9%
<i>among which:</i>							
Industry	2 478	2 429	2 459	2 262	2 087	2 110	1.1%
Services & households	2 430	2 070	1 921	1 832	1 691	1 702	0.7%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	144 679p	126 322	121 740	111 540	79 612	84 768	6.5%
Blast-furnace gas	205 927	192 979	201 088	195 104	193 416	199 959	3.4%
Gasworks gas	10 823	7 359	8 480	4 241	3 860	3 990	3.4%
Inputs to electricity plants	290 528p	305 230	309 378	276 787	284 415	291 950	2.6%
Inputs to heat plants	148	11 716	9 850	9 647	8 276	6 766	-18.2%
Consumption of energy branch	156 596p	141 475	133 915	113 562	113 872	111 988	-1.7%
Consumption in industry	351 328p	319 704	323 128	306 899	273 252	284 948	4.3%




## 7. Renewable energy sources

	EU-15							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	79 507	80 747	84 094	87 212	84 442p	91 178	8.0%	
Hydro (excl. pumping)	26 268	26 195	27 645	29 194	24 144	23 877	-1.1%	
Wind	1 038	1 221	1 912	2 318	3 064	3 791	23.7%	
Solar	327	337	381	427	461p	581	26.1%	
Geothermal	4 028	4 213	3 315	3 402	3 694p	5 180	40.2%	
Biomass	47 846	48 781	50 841	51 870	53 079	57 749	8.8%	
	<i>among which:</i>							
Wood, wood-waste	39 532	39 814	40 733	41 347	41 646p	44 596	7.1%	
Municipal solid waste	6 271	6 725	7 289	7 538	7 787p	8 705	11.8%	
Biogas	1 690	1 843	2 212	2 538	2 692p	3 291	22.3%	
Gross inland consumption	79 938	81 216	84 698	87 894	85 214p	92 110	8.1%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	3 676	3 865	2 949	3 046	3 341	4 692	40.4%	
Biomass	12 522	13 721	14 683	15 546	16 860	20 421	21.1%	
	<i>among which:</i>							
Wood, wood-waste	5 248	5 932	6 073	6 632	7 555p	9 621	27.3%	
Municipal waste	5 975	6 339	6 753	6 928	7 105p	7 998	12.6%	
Biogas	1 298	1 449	1 857	2 161	2 199p	2 803	27.4%	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	36 245	35 974	37 499	37 775	37 773p	39 126	3.6%	
	<i>by sector:</i>							
Industry	13 544	13 532	14 417	13 847	14 113	13 579	-3.8%	
Services & households etc.	22 355	22 051	22 478	23 309	22 729p	24 478	7.7%	
Transport	347	391	604	619	931	1 070	14.9%	
	<i>by source:</i>							
Biomass	35 572	35 296	36 762	37 001	36 988	38 096	3.0%	
	<i>among which:</i>							
Wood, wood-waste	34 522	34 098	34 922	35 386	34 874p	35 946	3.1%	
Municipal waste	128	152	536	611	682	707	3.6%	
Biogas	334	353	354	377	491p	364	-25.9%	
Geothermal	352	348	365	356	353p	488	38.2%	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	61	74	109	169	256	436	70.3%	
Hydro with installed capacity < 1 MW	8 785	8 485	8 179	8 315	8 419	9 723	15.5%	
Hydro with installed capacity > 1 & <10 MW	30 018	29 260	31 550	31 007	29 255	21 956	-24.9%	
Hydro with installed capacity > 10 MW	269 055	264 800	279 323	300 936	239 788	250 210	4.3%	
Wood, Wood-waste	16 442	18 685	19 603	19 588	23 168	29 322	26.6%	
Municipal waste	11 349	11 592	13 401	13 730	16 073	17 916	11.5%	
Biogas	3 719	4 720	6 306	6 150	9 143	9 867	7.9%	

	EU-15						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	92	124	180	274	342	519	51.8%
Hydro with installed capacity < 1 MW	2 126	2 137	2 047	2 057	1 972	:	
Hydro with installed capacity > 1 & <10 MW	7 605	7 619	7 308	7 715	8 009	:	
Hydro with installed capacity > 10 MW	79 243	79 042	77 804	77 901	80 931	:	
Wood, Wood-waste	5 131	5 841	5 798p	5 487p	5 672p	:	
Municipal waste	1 888	2 094	2 339	2 446	2 534p	3 142p	24.0%
Biogas	697	945	1 198	1 491	1 590	1 859	16.9%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	435	492	748	868	1 215	1 425	17.3%
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	9 032	9 213	10 489	12 094	13 198	14 415	9.2%


# 1. Energy economy

## Key figures and energy indicators

		BELGIQUE/BELGIË					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	12 033	13 274	13 065	12 637	12 900	13 118
Net energy imports		50 062	46 914	48 651	48 710	45 336	49 363
Net oil imports		28 891	25 918	27 331	27 142	25 160	28 334
Net gas imports		12 432	13 478	13 278	13 134	13 653	14 243
Gross inland energy consumption		56 210	56 876	57 168	55 617	52 570	55 785
Final energy consumption		37 092	36 931	36 931	37 219	35 825	38 104
Industry		12 875	13 253	13 636	13 527	12 678	13 345
Transport		9 573	9 597	9 672	9 452	9 613	10 142
Services and households etc.		14 644	14 082	13 624	14 240	13 535	14 617
Gross electricity generation	GWh	83 241	84 521	83 894	79 697	82 060	84 618
Final electricity consumption		73 957	74 505	77 539	78 138	78 443	79 677
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	225 895	233 105	242 142	243 883	246 087	249 185
Population	1000 per.	10 192	10 214	10 239	10 263	10 310	10 356
Industry added value	Mio EUR	60 740	61 683	65 057	65 033	64 726	64 542
Total imports (current prices)	Mio EUR	158 546	165 260	179 244	181 002	182 844	187 020
among which:							
All energy commodities		7 556	8 844	17 075	17 204	16 570	18 096
Oil products		5 007	6 591	13 270	12 831	12 047	12 756
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	248.8	244.0	236.1	228.1	213.6	223.9
Final energy consumption / GDP(95)		164.2	158.4	152.5	152.6	145.6	152.9
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		212.0	214.9	209.6	208.0	195.9	206.8
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		25.9	24.6	22.5	23.4	22.5	23.8
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	5 515	5 569	5 583	5 419	5 099	5 387
Final energy consumption / capita		3 639	3 616	3 607	3 626	3 475	3 679
Household consumption / capita		970	928	924	959	900	953
Electricity consumption / capita	kWh/cap.	8 156	8 212	8 449	8 489	8 546	8 654
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	81.3	76.6	77.8	80.1	76.4	78.8
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	66.0	64.9	64.6	66.9	68.1	68.3
Efficiency of thermal power stations		44.4	45.8	46.4	50.5	51.1	47.6

## 2. Energy balance

### Principal aggregates by product

 eurostat	BELGIQUE/BELGIE						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	12 033	13 274	13 065	12 637	12 900	13 118	1.7%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	0	2	-	-	-	-
Nuclear heat	11 394	12 644	12 422	11 956	12 217	12 222	0.0%
Hydro-electricity	33	29	39	38	31	21	-31.0%
Biomass	603	597	596	635	645	864	34.0%
<b>Imports</b>							
Total	72 598	70 672	73 672	72 281	70 421	74 185	5.3%
<i>among which:</i> Hard coal	8 844	7 585	7 888	8 026	6 934	6 573	-5.2%
Crude oil and feedstocks	36 057	34 165	36 165	33 403	32 897	36 262	10.2%
Petroleum products	13 771	13 836	14 378	15 466	15 063	15 434	2.5%
Natural Gas	12 432	13 478	13 278	13 134	13 653	14 243	4.3%
Electricity	673	779	1 001	1 360	1 432	1 261	-12.0%
<b>Exports</b>							
Total	22 536	23 758	25 021	23 570	25 085	24 823	-1.0%
<i>among which:</i> Crude oil and feedstocks	2 590	3 120	3 507	2 295	2 781	3 054	9.8%
Petroleum products	18 347	18 963	19 706	19 432	20 020	20 307	1.4%
Natural gas	-	-	-	-	-	-	-
Electricity	553	706	629	577	780	710	-9.0%
<b>Gross inland consumption</b>							
Total	56 210	56 876	57 168	55 617	52 570	55 785	6.1%
<i>among which:</i> Solid fuels	8 439	7 421	8 200	7 077	6 653	6 209	-6.7%
Crude oil and petrol. prod.	22 946	22 532	21 949	21 692	18 662	21 208	13.6%
Natural gas	12 474	13 335	13 369	13 180	13 378	14 402	7.7%
Nuclear Energy	11 394	12 644	12 422	11 956	12 217	12 222	0.0%
Renewables	718	738	746	782	819	1 056	28.9%
<b>Transformation input</b>							
Total	59 903	58 619	60 614	60 237	65 099	66 191	1.7%
<i>among which:</i> Crude oil and feedstocks	37 174	35 019	37 085	38 224	42 808	43 026	0.5%
Petroleum products	394	444	172	248	-	252	-
Hard coal	5 845	4 946	5 699	5 010	4 876	4 701	-3.6%
Lignite and peat	-	-	-	-	-	-	-
Renewables	338	346	367	353	421	574	36.3%
<b>Transformation output</b>							
Total	47 689	45 823	47 999	48 645	53 254	53 563	0.6%
<i>among which:</i> Electricity	7 028	7 138	7 066	6 708	6 923	7 155	3.3%
Heat	290	420	532	525	514	504	-1.9%

**Final energy consumption**

Total	37 092	36 931	36 931	37 219	35 825	38 104	6.4%
<i>among which:</i> Solid fuels	3 266	3 271	3 378	3 301	2 449	2 381	-2.8%
Petroleum products	17 595	16 956	16 047	16 257	15 519	17 644	13.7%
Natural Gas	8 650	8 947	9 446	9 509	9 693	9 653	-0.4%
Renewables	343	360	333	383	359	449	25.1%
Electricity	6 359	6 406	6 667	6 719	6 745	6 851	1.6%

**Final energy consumption by sector**
**Industry**

Total	12 875	13 253	13 636	13 527	12 678	13 345	5.3%
<i>among which:</i> Solid fuels	3 038	3 071	3 164	3 096	2 224	2 210	-0.6%
Petroleum Products	1 855	1 627	1 265	1 646	1 280	1 994	55.8%
Natural Gas	3 756	4 181	4 608	4 239	4 623	4 386	-5.1%
Renewables	176	200	180	191	207	256	23.6%
Electricity	3 215	3 236	3 428	3 373	3 348	3 437	2.7%


**Transport**

Total	9 573	9 597	9 672	9 452	9 613	10 142	5.5%
<i>among which:</i> Motor spirit	2 642	2 518	2 362	2 300	2 196	2 214	0.8%
Diesel oil	4 902	5 123	5 494	5 690	5 839	6 001	2.8%
Jet fuel	1 589	1 552	1 530	1 160	1 257	1 553	23.5%
Electricity	117	120	124	126	125	128	2.6%


**Services&households**

Total	14 644	14 082	13 624	14 240	13 535	14 617	8.0%
<i>among which:</i> Solid fuels	228	199	215	205	225	171	-23.8%
Gas oil	5 553	5 150	4 791	4 802	4 304	5 047	17.3%
Natural Gas	4 894	4 766	4 838	5 270	5 070	5 267	3.9%
Renewables	168	160	153	192	152	193	27.2%
Electricity	3 026	3 050	3 115	3 220	3 272	3 286	0.4%
Heat	42	50	64	63	62	60	-1.9%


### 3.1 Electricity balance

 eurostat	BELGIQUE/BELGIE							
	in GWh		1998	1999	2000	2001	2002	2003
<b>Generation</b>								
Total gross generation		83 241	84 521	83 894	79 697	82 060	84 618	3.1%
<i>among which:</i>								
Hydro		1 497	1 489	1 699	1 648	1 488	1 316	-11.6%
Wind		11	13	15	34	57	90	57.9%
Geothermal		-	-	-	-	-	-	-
Nuclear		46 165	49 017	48 157	46 349	47 360	47 379	0.0%
Conventional thermal		35 568	34 002	34 023	31 666	33 155	35 833	8.1%
<i>of which:</i>								
Hard coal		14 187	9 939	12 916	9 936	10 029	9 638	-3.9%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		2 580	1 035	797	1 664	972	1 007	3.6%
Natural gas		15 036	19 231	15 977	15 780	17 868	21 609	20.9%
Derived gases		2 703	2 589	3 114	2 828	2 631	1 970	-25.1%
Biomass		529	828	860	945	1 169	1 339	14.5%
Industrial wastes		533	380	359	513	486	270	-44.4%
Total net generation		79 492	80 851	80 160	76 085	78 143	80 807	3.4%
<b>Imports and exports</b>								
Total imports		7 828	9 059	11 645	15 818	16 658	14 664	-12.0%
Total exports		6 435	8 207	7 319	6 712	9 070	8 254	-9.0%
<b>Consumption and losses</b>								
Consumption of the energy branch		5 674	5 587	5 758	5 702	6 307	6 525	3.5%
<i>of which:</i>								
Consumption for pumped-storage		355	372	397	417	395	377	-4.6%
Network losses		3 895	4 133	3 683	3 755	3 768	3 757	-0.3%
Final energy consumption		73 957	74 505	77 539	78 138	78 443	79 677	1.6%
<i>of which:</i>								
Industry		37 395	37 633	39 868	39 224	38 933	39 975	2.7%
<i>among which:</i>								
Iron&steel industry		6 445	6 198	6 876	6 663	6 833	7 015	2.7%
Non-ferrous metals		1 869	1 907	2 045	1 980	1 997	2 083	4.3%
Chemical industry		12 757	12 790	13 480	13 189	13 177	13 537	2.7%
Non-met. mineral prod.		2 443	2 470	2 518	2 497	2 515	2 563	1.9%
Food, drink, tobacco		3 641	3 767	3 953	4 041	3 907	4 005	2.5%
Pulp, paper and print		2 371	2 475	2 525	2 465	2 497	2 563	2.6%
Engineering & metal		3 024	3 018	3 231	3 126	2 984	3 083	3.3%
Other industries		2 555	2 724	2 853	2 887	2 751	2 803	1.9%
Transport		1 366	1 401	1 440	1 463	1 452	1 490	2.6%
Services & households etc.		35 196	35 471	36 231	37 451	38 058	38 212	0.4%
<i>among which:</i>								
Households		23 388	23 482	23 738	24 396	25 921	26 026	0.4%

## 3.2 Electrical capacity, fuel inputs and heat


		BELGIQUE/BELGIE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	15 395	15 575	15 682	15 538	15 546	15 609	0.4%
<i>by source:</i>								
Conventional thermal		8 272	8 442	8 545	8 353	8 341	8 366	0.3%
<i>of which:</i>								
Steam		5 363	4 719	4 272	4 082	4 084	4 049	-0.9%
Gas turbine		776	1 010	1 281	1 300	1 226	1 243	1.4%
Combined cycle		2 093	2 513	2 792	2 771	2 676	2 676	0.0%
Internal combustion		20	200	200	200	356	398	11.8%
Nuclear		5 713	5 713	5 713	5 738	5 761	5 761	0.0%
Hydro		1 404	1 410	1 410	1 421	1 413	1 415	0.1%
<i>among which:</i>								
Pumped storage		1 307	1 307	1 310	1 310	1 310	1 310	0.0%
Wind		6	10	14	26	31	67	116.1%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		14 773	14 924	15 230	15 112	15 137	15 201	0.4%
Autoproducers		622	645	442	416	409	408	-0.2%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	7 539	7 293	7 453	6 430	6 585	7 530	14.3%
<i>among which:</i>								
Hard coal		3 040	2 247	3 025	2 267	2 263	2 191	-3.1%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		389	444	172	248	-	252	-
Natural gas		3 024	3 528	3 144	2 884	3 164	3 954	25.0%
Renewables		330	338	356	337	421	540	28.1%
Heating plants		80	39	41	37	-	34	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		5	-	-	-	-	-	-
Natural gas		66	31	30	21	-	-	-
Renewables		8	8	11	16	-	34	-
<b>Heat production and consumption</b>								
Total heat production	TJ	290	420	532	525	514	504	-1.9%
<i>among which: in heating plants</i>								
		-	-	-	-	-	-	-
Heat consumption		323	387	490	483	474	464	-1.9%
<i>of which: in industry</i>								
		281	336	426	420	412	404	-1.9%
<i>in households and services</i>								
		42	50	64	63	62	60	-1.9%
<i>among which: in households</i>								
		11	13	16	16	15	15	-1.9%


## 4.1 Crude oil and feedstocks

 in 1 000 t		BELGIQUE/BELGIE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		37 131	35 276	37 441	35 495	36 637	39 257	7.2%
Total exports		2 551	3 074	3 455	2 261	2 740	3 009	9.8%
Stock changes		-87	-37	52	129	32	-29	-190.6%
Refinery intake		38 232	36 119	38 344	40 254	46 412	45 920	-1.1%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		16 871	11 081	12 500	11 597	11 262	14 533	29.0%
Near and Middle East		15 486	9 177	11 135	9 944	9 752	11 811	21.1%
Africa		655	465	930	555	962	1 670	73.6%
<i>by country of origin:</i>								
Algeria		146	224	177	142	631	249	-60.5%
Nigeria		-	136	289	238	187	1 265	576.5%
Saudi Arabia		10 333	5 677	6 794	5 821	6 337	6 144	-3.0%
Kuwait		691	63	-	87	2	-	
United Arab Emirates		-	-	-	50	-	-	
Norway		8 762	9 347	8 936	8 135	6 784	4 711	-30.6%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	37 550	37 550	37 880	:	:	:	
<i>among which:</i>								
Cracking and others		11 330	11 330	11 050	:	:	:	
Reforming		4 980	4 980	5 070	:	:	:	




## 4.2 Petroleum products


 eurostat	BELGIQUE/BELGIE						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	37 944	35 773	38 092	39 883	46 005	45 489	-1.1%
<i>among which:</i>							
Motor spirit	6 431	6 032	5 311	5 493	5 775	5 865	1.6%
Kerosene and jet fuel	2 195	2 128	2 317	2 026	2 145	2 110	-1.6%
Naphtha	1 524	1 608	2 026	2 135	2 051	2 460	19.9%
Gas/diesel oil	12 447	11 749	12 501	12 777	12 464	13 013	4.4%
Residual fuel oil	8 042	6 895	7 990	7 015	7 603	8 689	14.3%
Total imports	13 760	13 811	14 445	15 468	15 160	15 592	2.8%
Total exports	18 273	18 852	19 655	19 367	19 969	20 239	1.4%
Bunkers	5 613	4 535	5 545	5 429	7 080	7 146	0.9%
Stock changes	-460	1 001	-101	-327	268	-256	-195.5%
Gross inland consumption	-10 576	-8 564	-10 856	-9 655	-11 614	-12 049	-3.7%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	9 304	9 428	9 062	8 256	9 502	10 744	13.1%
United Kingdom	926	1 078	1 357	1 509	1 327	1 064	-19.8%
Norway	829	487	505	235	116	100	-13.8%
OPEC	275	80	157	96	555	326	-41.3%
Imports by product							
<i>among which:</i>							
Motor spirit	1 434	1 574	1 536	1 472	1 218	1 123	-7.8%
Kerosene and jet fuel	488	643	496	535	721	1 110	54.0%
Gas/diesel oil	5 908	6 313	6 259	7 281	6 314	6 657	5.4%
Residual fuel oil	2 833	2 227	2 347	2 886	3 678	4 457	21.2%
Exports by product							
<i>among which:</i>							
Motor spirit	5 339	5 257	4 604	4 801	4 935	4 859	-1.5%
Kerosene and jet fuel	902	1 133	1 194	1 348	1 551	1 636	5.5%
Gas/diesel oil	6 117	7 355	7 422	7 589	7 643	7 419	-2.9%
Residual fuel oil	3 480	2 763	3 887	3 413	3 515	4 024	14.5%
<b>Consumption</b>							
Inputs to electricity plants	406	463	180	260	-	264	
Inputs to heating plants	5	-	-	-	-	-	-
Non-energy use	4 228	4 365	5 210	5 442	5 159	4 398	-14.8%
Final energy consumption	17 384	16 770	15 919	16 080	15 339	17 502	14.1%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	615	514	308	745	592	376	-36.5%
Residual fuel oil	918	851	507	658	334	1 339	300.9%

 eurostat	BELGIQUE/BELGIE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	63	43	252	36	50	32	-36.0%	
Non-ferrous metals	26	24	206	23	49	46	-6.1%	
Chemical industry	341	228	31	1	14	147	950.0%	
Non-met. mineral prod.	289	249	147	414	319	401	25.7%	
Food, drink, tobacco	182	159	162	168	163	188	15.3%	
Pulp, paper and print	40	42	47	50	60	45	-25.0%	
Engineering & metal	53	37	15	34	15	26	73.3%	
Other industries	904	905	529	994	651	1 218	87.1%	
<b>Transport</b>	9 237	9 260	9 331	9 119	9 284	9 803	5.6%	
<i>among which:</i>								
Motor spirit	2 514	2 396	2 248	2 189	2 090	2 107	0.8%	
Jet fuel	1 547	1 511	1 490	1 129	1 224	1 512	23.5%	
Diesel oil	4 852	5 071	5 438	5 632	5 779	5 940	2.8%	
<b>Services &amp; households etc.</b>	6 223	5 800	5 176	5 225	4 703	5 584	18.7%	
<i>among which:</i>								
Gas oil	5 496	5 097	4 742	4 753	4 260	4 995	17.3%	
Residual fuel oil	374	387	162	190	180	344	91.1%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	944	981	929	800	768	797	3.8%	
Petroleum products	3 630	2 629	2 730	3 092	2 824	3 080	9.1%	


## 5. Natural gas

 eurostat	BELGIQUE/BELGIE								
	in TJ (GCV)		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production	-	17	96	-	-	-	-	-	-
Total imports	578 325	627 007	617 685	610 993	635 134	662 591	4.3%		
Total exports	-	-	-	-	-	-	-	-	-
Stock changes	1 978	-6 685	4 124	2 130	-12 791	7 390	157.8%		
Gross inland consumption	580 303	620 339	621 905	613 123	622 343	669 981	7.7%		
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS	-	-	-	-	-	-	-	-	-
Algeria	170 176	166 400	173 459	89 431	132 041	126 371	-4.3%		
Norway	203 489	212 318	199 298	202 635	207 287	209 340	1.0%		
<b>Consumption</b>									
Inputs to electricity plants	140 696	164 107	146 236	134 167	147 188	183 960	25.0%		
Inputs to heat plants	3 084	1 431	1 382	956	-	-	-	-	-
Consumption of energy branch	3 208	2 075	1 875	2 510	2 260	2 344	3.7%		
Distribution losses	-	-	-	-	-	-	-	-	-
Non-energy use	32 258	35 431	33 512	34 476	32 061	39 298	22.6%		
Industry	174 742	194 500	214 368	197 205	215 039	204 034	-5.1%		
<i>among which:</i>									
Iron&steel industry	32 021	30 096	38 085	32 806	34 184	34 024	-0.5%		
Non-ferrous metals	4 470	4 766	4 989	4 479	4 521	5 479	21.2%		
Chemical industry	56 800	72 998	80 225	71 615	78 861	81 914	3.9%		
Non-met. mineral prod.	18 978	19 551	20 386	19 601	18 021	25 528	41.7%		
Food, drink, tobacco	7 784	8 707	8 554	7 069	8 580	21 964	156.0%		
Pulp, paper and print	4 069	4 706	4 974	4 115	5 035	6 473	28.6%		
Engineering & metal	6 584	7 241	7 787	6 465	8 220	12 542	52.6%		
Other industries	40 958	43 518	46 377	48 319	55 037	8 366	-84.8%		
Transport	-	-	-	-	-	-	-	-	-
Services & households etc.	227 673	221 728	225 060	245 146	235 870	245 027	3.9%		
<i>among which:</i>									
Households	157 086	152 293	153 172	168 496	160 795	167 411	4.1%		
Services	70 587	69 435	71 888	76 650	75 075	77 616	3.4%		


## 6.1 Hard coal


 eurostat	BELGIQUE/BELGIE						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>							
Primary production	-	-	-	-	-	-	-
Total imports	12 634	10 836	11 347	12 681	9 905	9 390	-5.2%
Total exports	1 294	1 156	1 425	1 886	2 006	961	-52.1%
Stock changes	-251	-23	749	-872	970	94	-90.3%
Gross inland consumption	11 401	10 021	11 046	10 141	9 042	8 652	-4.3%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
USA	2 594	2 007	2 207	2 410	1 840	1 744	-5.2%
Poland	477	444	299	661	540	61	-88.7%
CIS	457	484	724	830	969	915	-5.6%
Australia	3 616	3 535	3 463	3 824	2 577	2 339	-9.2%
South Africa	4 208	3 075	3 087	3 560	2 798	3 607	28.9%
Colombia	394	94	431	215	314	12	-96.2%
<b>Consumption</b>							
Inputs to electricity plants	5 087	3 759	4 374	3 781	3 772	3 618	-4.1%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Industry							
<i>among which:</i>							
Iron&steel industry	1 518	1 525	1 458	1 535	824	712	-13.6%
Non-ferrous metals	-	-	-	-	-	-	-
Chemical industry	5	32	-	-	1	-	-
Non-met. mineral prod.	322	309	359	225	223	111	-50.2%
Food, drink, tobacco	11	12	38	44	46	59	28.3%
Pulp, paper and print	14	11	44	49	43	45	4.7%
Engineering & metal	-	-	-	8	19	13	-31.6%
Other industries	22	32	55	31	-	8	-
Services & households etc.	307	270	297	324	304	234	-23.0%
<b>Structural data</b>							
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-

## 6.2 Coal derivatives and peat

	BELGIQUE/BELGIE						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	3 003	3 137	3 104	3 221	2 966	2 861	-3.5%
Patent Fuel	10	7	5	11	11	11	0.0%
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	23 828	23 873	23 348	22 769	22 266	21 094	-5.3%
Blast-furnace gas	38 156	38 681	39 304	35 494	36 670	36 381	-0.8%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	2 458	2 414	2 575	2 764	1 964	2 151	9.5%
<i>among which:</i>							
Iron & steel industry	2 370	2 345	2 489	2 682	1 909	2 092	9.6%
Services & households	3	3	3	2	7	3	-57.1%
Patent Fuel	10	8	7	10	9	5	-44.4%
<i>among which:</i>							
Services & households	10	8	7	10	7	5	-28.6%
Lignite and peat	195	159	218	204	189	189	0.0%
<i>among which:</i>							
Industry	195	159	218	204	189	189	0.0%
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	8	6	4	5	5	4	-20.0%
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	8	6	4	5	5	4	-20.0%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	8 540	8 543	8 634	8 922	9 264	9 285	0.2%
Blast-furnace gas	15 482	17 504	15 856	15 466	16 127	19 154	18.8%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	27 126	25 807	27 480	23 153	23 228	19 189	-17.4%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	10 836	10 700	10 682	10 722	10 317	9 847	-4.6%
Consumption in industry	24 022	26 047	24 490	24 388	25 391	28 439	12.0%


## 7. Renewable energy sources

		BELGIQUE/BELGIE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	639	630	641	681	683	896	31.2%
Hydro (excl. pumping)		33	29	39	38	31	21	-31.0%
Wind		1	1	1	3	5	8	54.4%
Solar		1	1	1	1	2	2	47.3%
Geothermal		1	1	4	4	1	1	0.0%
Biomass		603	597	596	635	645	864	34.0%
	<i>among which:</i>							
Wood, wood-waste		267	266	244	274	254	346	36.2%
Municipal solid waste		314	304	323	317	346	467	35.1%
Biogas		22	27	29	44	45	52	13.8%
Gross inland consumption		718	738	746	782	819	1 056	28.9%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		338	346	367	353	421	574	36.3%
	<i>among which:</i>							
Wood, wood-waste		10	20	18	20	40	63	58.0%
Municipal waste		314	304	323	299	346	467	35.1%
Biogas		14	22	26	34	36	44	22.9%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	345	362	338	389	362	453	25.2%
	<i>by sector:</i>							
Industry		176	200	180	191	207	256	23.6%
Services & households etc.		170	162	157	198	154	196	27.3%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		343	360	333	383	359	449	25.1%
	<i>among which:</i>							
Wood, wood-waste		336	355	330	355	349	441	26.4%
Municipal waste		-	-	-	18	-	-	-
Biogas		7	5	3	10	10	8	-20.2%
Geothermal		1	1	4	4	1	1	0.0%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		15	14	19	18	17	14	-17.6%
Hydro with installed capacity > 1 & <10 MW		199	183	236	228	181	133	-26.5%
Hydro with installed capacity > 10 MW		175	145	204	199	162	100	-38.3%
Wood, Wood-waste		95	199	153	173	271	377	39.1%
Municipal waste		516	554	689	756	761	788	3.5%
Biogas		58	75	98	127	134	174	29.9%

		BELGIQUE/BELGIE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		-	-	-	-	1	1	0.0%
Hydro with installed capacity < 1 MW		5	6	6	6	7	6	-14.3%
Hydro with installed capacity > 1 & <10 MW		54	54	54	54	53	53	0.0%
Hydro with installed capacity > 10 MW		43	43	43	51	51	51	0.0%
Wood, Wood-waste		155	38	47	62	57	121	112.3%
Municipal waste		-	72	97	101	134	133	-0.7%
Biogas		-	9	39	28	29	42	44.8%
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	-	-	-	-
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	36	36	41	44	50	58	16.0%

# 1. Energy economy


## Key figures and energy indicators

		CESKÁ REPUBLIKA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	30 437	27 642	29 497	30 146	30 346	32 557
Net energy imports		10 434	9 516	9 297	10 565	10 870	10 887
Net oil imports		8 163	7 731	7 428	8 079	7 770	8 219
Net gas imports		7 613	7 442	7 482	7 736	7 917	7 698
Gross inland energy consumption		40 898	37 976	40 361	41 216	41 447	43 665
Final energy consumption		24 444	23 139	24 060	24 156	23 624	25 752
Industry		11 344	9 256	10 101	9 526	9 445	9 852
Transport		3 831	4 663	4 754	5 015	5 169	5 817
Services and households etc.		9 268	9 221	9 205	9 615	9 010	10 083
Gross electricity generation	GWh	65 112	64 693	73 466	74 647	76 346	83 223
Final electricity consumption		48 837	48 089	49 351	50 856	50 789	52 376
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	40 766	40 957	42 290	43 406	44 052	45 424
Population	1000 per.	10 299	10 290	10 278	10 267	10 206	10 203
Industry added value	Mio EUR	15 308	15 755	16 704	15 791	16 931	17 976
Total imports (current prices)	Mio EUR	30 244	31 756	36 939	41 747	43 791	47 268
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	1 003.2	927.2	954.4	949.6	940.9	961.3
Final energy consumption / GDP(95)		599.6	565.0	568.9	556.5	536.3	566.9
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		741.1	587.5	604.7	603.3	557.8	548.0
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		135.4	156.6	152.1	140.1	133.6	148.1
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 971	3 691	3 927	4 015	4 061	4 280
Final energy consumption / capita		2 373	2 249	2 341	2 353	2 315	2 524
Household consumption / capita		545	516	512	558	524	588
Electricity consumption / capita	kWh/cap.	5 900	5 754	5 948	6 101	6 086	6 392
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	25.5	25.1	23.0	25.6	26.2	24.9
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	59.8	60.9	59.6	58.6	57.0	59.0
Efficiency of thermal power stations		53.8	46.5	46.7	47.2	46.8	48.1




## 2. Energy balance

### Principal aggregates by product


 eurostat	CESKA REPUBLIKA						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	30 437	27 642	29 497	30 146	30 346	32 557	7.3%
among which:							
Hard coal	25 903	22 978	24 908	25 190	24 100	24 101	0.0%
Lignite and peat	139	106	94	106	106	95	-10.7%
Crude oil	175	179	171	180	257	309	20.3%
Natural Gas	169	175	169	122	115	131	14.2%
Nuclear heat	3 400	3 446	3 506	3 805	4 834	6 674	38.1%
Hydro-electricity	120	144	151	177	214	119	-44.5%
Biomass	530	614	498	568	721	1 128	56.4%
<b>Imports</b>							
Total	18 948	18 067	17 766	19 015	19 025	19 356	1.7%
among which:							
Hard coal	917	631	628	766	785	825	5.1%
Crude oil and feedstocks	6 826	5 923	5 601	5 936	5 999	6 292	4.9%
Petroleum products	2 706	3 092	2 894	3 424	3 160	3 169	0.3%
Natural Gas	7 614	7 442	7 483	7 736	7 918	7 740	-2.3%
Electricity	721	772	750	807	817	867	6.1%
<b>Exports</b>							
Total	8 514	8 551	8 468	8 450	8 155	8 469	3.9%
among which:							
Crude oil and feedstocks	101	106	109	117	136	130	-4.4%
Petroleum products	1 268	1 178	958	1 164	1 252	1 113	-11.1%
Natural gas	1	-	1	-	1	41	-
Electricity	932	1 054	1 612	1 627	1 796	2 261	25.9%
<b>Gross inland consumption</b>							
Total	40 898	37 976	40 361	41 216	41 447	43 665	5.4%
among which:							
Solid fuels	21 149	18 030	21 645	21 042	20 465	20 680	1.0%
Crude oil and petrol. prod.	8 187	8 148	7 790	8 282	8 322	8 582	3.1%
Natural gas	7 685	7 727	7 500	8 032	7 762	7 842	1.0%
Nuclear Energy	3 400	3 446	3 506	3 805	4 834	6 674	38.1%
Renewables	650	756	649	742	910	1 212	33.2%
<b>Transformation input</b>							
Total	29 730	29 515	30 748	31 619	31 907	34 242	7.3%
among which:							
Crude oil and feedstocks	7 024	6 177	6 047	6 257	6 234	6 587	5.7%
Petroleum products	354	333	300	312	235	231	-1.7%
Hard coal	16 146	16 536	17 888	18 255	17 600	17 799	1.1%
Lignite and peat	137	102	100	112	112	107	-4.0%
Renewables	207	340	289	287	284	294	3.4%
<b>Transformation output</b>							
Total	20 678	18 659	19 324	19 888	19 876	21 129	6.3%
among which:							
Electricity	5 437	5 372	6 118	6 206	6 320	7 002	10.8%
Heat	3 775	3 494	3 322	3 561	3 399	3 514	3.4%

	1998	1999	2000	2001	2002	2003	03/02
<b>Final energy consumption</b>							
Total	24 444	23 139	24 060	24 156	23 624	25 752	9.0%
<i>among which:</i> Solid fuels	4 427	3 833	5 238	4 228	3 814	4 567	19.8%
Petroleum products	5 491	5 353	5 291	5 366	5 719	6 254	9.4%
Natural Gas	6 182	6 098	5 914	6 522	6 165	6 294	2.1%
Renewables	323	274	212	280	412	799	94.2%
Electricity	4 199	4 135	4 243	4 373	4 367	4 504	3.1%
<b>Final energy consumption by sector</b>							
<b>Industry</b>							
Total	11 344	9 256	10 101	9 526	9 445	9 852	4.3%
<i>among which:</i> Solid fuels	2 997	2 602	3 831	3 229	2 953	3 422	15.9%
Petroleum Products	1 366	754	590	406	578	465	-19.6%
Natural Gas	2 848	2 629	2 602	2 612	2 581	2 522	-2.3%
Renewables	310	245	131	183	306	215	-29.9%
Electricity	1 620	1 616	1 629	1 714	1 768	1 767	0.0%
<b>Transport</b>							
Total	3 831	4 663	4 754	5 015	5 169	5 817	12.5%
<i>among which:</i> Motor spirit	1 911	2 025	1 956	2 001	2 027	2 210	9.0%
Diesel oil	1 457	2 185	2 297	2 511	2 638	3 022	14.6%
Jet fuel	192	181	197	211	200	258	28.7%
Electricity	195	185	198	180	182	188	3.0%
<b>Services&amp;households</b>							
Total	9 268	9 221	9 205	9 615	9 010	10 083	11.9%
<i>among which:</i> Solid fuels	1 430	1 231	1 407	998	861	1 145	33.0%
Gas oil	313	9	7	4	6	7	16.7%
Natural Gas	3 332	3 466	3 308	3 905	3 577	3 764	5.2%
Renewables	-	15	48	68	79	560	604.2%
Electricity	2 384	2 334	2 416	2 479	2 417	2 549	5.4%
Heat	1 619	2 038	1 843	2 005	1 888	1 869	-1.0%


### 3.1 Electricity balance

 eurostat	CESKA REPUBLIKA							
	in GWh		1998	1999	2000	2001	2002	2003
<b>Generation</b>								
Total gross generation		65 112	64 693	73 466	74 647	76 346	83 223	9.0%
<i>among which:</i>								
Hydro		1 884	2 215	2 313	2 467	2 845	1 794	-36.9%
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Nuclear		13 178	13 357	13 590	14 749	18 738	25 872	38.1%
Conventional thermal		50 050	49 121	57 563	57 431	54 763	55 557	1.4%
<i>of which:</i>								
Hard coal		45 601	43 891	52 241	52 114	49 705	50 668	1.9%
Lignite and peat		-	320	300	310	300	298	-0.7%
Petroleum products		616	427	372	386	384	368	-4.2%
Natural gas		2 544	3 008	3 165	3 143	2 931	3 058	4.3%
Derived gases		691	640	762	765	754	668	-11.4%
Biomass		587	683	522	518	498	497	-0.2%
Industrial wastes		11	152	201	195	191	-	-
Total net generation		60 264	59 798	67 741	68 780	70 391	76 655	8.9%
<b>Imports and exports</b>								
Total imports		8 383	8 983	8 725	9 380	9 502	10 086	6.1%
Total exports		10 844	12 258	18 742	18 919	20 889	26 299	25.9%
<b>Consumption and losses</b>								
Consumption of the energy branch		8 373	8 167	8 860	8 929	8 961	9 140	2.0%
<i>of which:</i>								
Consumption for pumped-storage		166	183	194	143	126	141	11.9%
Network losses		4 953	4 627	4 683	4 910	4 858	5 087	4.7%
Final energy consumption		48 837	48 089	49 351	50 856	50 789	52 376	3.1%
<i>of which:</i>								
Industry		18 837	18 799	18 944	19 939	20 558	20 550	0.0%
<i>among which:</i>								
Iron&steel industry		2 872	2 908	3 001	2 906	3 446	3 031	-12.0%
Non-ferrous metals		180	268	279	280	305	805	163.9%
Chemical industry		3 257	3 276	3 196	3 430	3 211	3 641	13.4%
Non-met. mineral prod.		2 074	2 152	2 037	2 279	2 162	2 381	10.1%
Food, drink, tobacco		1 431	1 438	1 377	1 544	1 534	1 557	1.5%
Pulp, paper and print		1 714	1 750	1 601	1 843	1 877	1 239	-34.0%
Engineering & metal		3 001	3 007	3 347	3 650	3 783	3 873	2.4%
Other industries		3 011	2 761	2 818	2 633	2 660	2 688	1.1%
Transport		2 273	2 149	2 305	2 092	2 119	2 182	3.0%
Services & households etc.		27 727	27 141	28 102	28 825	28 112	29 644	5.4%
<i>among which:</i>								
Households		14 506	14 048	13 822	14 239	14 121	14 508	2.7%


## 3.2 Electrical capacity, fuel inputs and heat


		CESKA REPUBLIKA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	14 891	15 215	15 159	15 390	16 304	17 332	6.3%
<i>by source:</i>								
Conventional thermal		11 098	11 302	11 302	11 485	11 399	11 423	0.2%
<i>of which:</i>								
Steam		10 490	10 900	10 693	10 873	10 781	10 679	-0.9%
Gas turbine		-	-	-	-	-	-	-
Combined cycle		-	-	-	-	-	-	-
Internal combustion		608	33	33	26	24	18	-25.0%
Nuclear		1 760	1 760	1 760	1 760	2 760	3 760	36.2%
Hydro		2 033	2 153	2 097	2 145	2 145	2 149	0.2%
<i>among which:</i>								
Pumped storage		1 145	1 145	1 145	1 145	1 145	1 145	0.0%
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		12 920	12 903	12 903	13 216	14 037	15 167	8.1%
Autoproducers		1 971	2 313	2 313	2 227	2 273	2 176	-4.3%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	13 184	14 643	15 893	16 124	15 466	15 497	0.2%
<i>among which:</i>								
Hard coal		11 540	12 684	13 924	14 146	13 538	13 687	1.1%
Lignite and peat		137	102	100	112	112	107	-4.0%
Petroleum products		242	205	203	212	165	163	-1.2%
Natural gas		469	657	694	694	695	704	1.2%
Renewables		200	330	278	277	274	246	-10.3%
Heating plants		1 086	1 067	984	1 009	972	976	0.4%
<i>among which:</i>								
Hard coal		306	213	287	288	283	268	-5.5%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		112	129	97	100	70	68	-3.1%
Natural gas		605	691	550	582	581	563	-3.0%
Renewables		7	10	11	11	10	48	359.9%
<b>Heat production and consumption</b>								
Total heat production	TJ	3 775	3 494	3 322	3 561	3 399	3 514	3.4%
<i>among which: in heating plants</i>		979	911	847	891	866	840	-3.0%
Heat consumption		3 171	2 962	2 624	2 793	2 589	2 653	2.5%
<i>of which: in industry</i>		1 553	924	781	789	702	784	11.7%
<i>in households and services</i>		1 619	2 038	1 843	2 005	1 888	1 869	-1.0%
<i>among which: in households</i>		1 107	1 334	1 213	1 343	1 282	1 265	-1.3%

## 4.1 Crude oil and feedstocks


 eurostat	CESKA REPUBLIKA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		179	183	175	183	265	317	19.6%
Total imports		6 978	6 064	5 725	6 037	6 189	6 454	4.3%
Total exports		103	109	111	119	140	133	-5.0%
Stock changes		-236	-82	115	41	-46	-41	10.9%
Refinery intake		7 167	6 314	6 171	6 357	6 425	6 751	5.1%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products

 eurostat	CESKA REPUBLIKA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	7 090	6 247	6 131	6 309	6 376	6 710	5.2%
among which:							
Motor spirit	1 057	956	1 036	1 106	1 248	1 324	6.1%
Kerosene and jet fuel	121	134	163	168	160	140	-12.5%
Naphtha	443	413	355	570	409	479	17.1%
Gas/diesel oil	2 481	2 172	2 125	2 250	2 412	2 590	7.4%
Residual fuel oil	1 512	1 128	911	773	376	445	18.4%
Total imports	2 657	3 023	2 829	3 359	3 102	3 116	0.5%
Total exports	1 296	1 196	973	1 156	1 243	1 108	-10.9%
Bunkers	-	-	-	-	-	-	-
Stock changes	-177	112	-130	-198	156	-69	-144.2%
Gross inland consumption	1 184	1 939	1 726	2 005	2 022	1 947	-3.7%
<b>Imports and exports</b>							
Imports by origin							
among which:							
Netherlands	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-
Imports by product							
among which:							
Motor spirit	855	1 050	929	1 102	989	986	-0.3%
Kerosene and jet fuel	95	56	38	33	50	104	108.0%
Gas/diesel oil	915	1 040	1 111	1 345	1 255	1 280	2.0%
Residual fuel oil	360	295	181	271	212	140	-34.0%
Exports by product							
among which:							
Motor spirit	55	99	75	209	274	184	-32.8%
Kerosene and jet fuel	-	-	6	-	-	-	-
Gas/diesel oil	580	617	492	603	693	640	-7.6%
Residual fuel oil	459	237	160	129	67	80	19.4%
<b>Consumption</b>							
Inputs to electricity plants	253	214	212	222	222	216	-2.7%
Inputs to heating plants	117	135	102	105	94	90	-4.3%
Non-energy use	2 143	2 193	2 088	2 351	1 917	1 947	1.6%
Final energy consumption	5 398	5 243	5 185	5 247	5 614	6 159	9.7%
Industry							
among which <i>by product</i> :							
Gas/diesel oil	601	149	196	222	195	49	-74.9%
Residual fuel oil	768	608	311	77	294	283	-3.7%


 eurostat	CESKA REPUBLIKA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	286	173	136	25	102	96	-5.9%	
Non-ferrous metals	1	1	1	1	1	-	-	
Chemical industry	96	155	-	-	14	13	-7.1%	
Non-met. mineral prod.	220	143	114	22	65	49	-24.6%	
Food, drink, tobacco	86	42	48	28	82	75	-8.5%	
Pulp, paper and print	25	27	16	5	49	9	-81.6%	
Engineering & metal	50	23	37	30	20	31	55.0%	
Other industries	604	176	235	303	248	241	-2.8%	
<b>Transport</b>	3 502	4 330	4 389	4 666	4 816	5 443	13.0%	
<i>among which:</i>								
Motor spirit	1 818	1 927	1 861	1 904	1 929	2 103	9.0%	
Jet fuel	187	176	192	205	195	251	28.7%	
Diesel oil	1 442	2 163	2 274	2 485	2 611	2 991	14.6%	
<b>Services &amp; households etc.</b>	497	133	178	152	185	192	3.8%	
<i>among which:</i>								
Gas oil	310	9	7	4	6	7	16.7%	
Residual fuel oil	82	54	88	52	110	124	12.7%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	714	795	680	639	679	726	6.9%	
Petroleum products	1 318	1 206	1 336	1 534	1 378	1 447	5.0%	

## 5. Natural gas


 eurostat	CESKA REPUBLIKA							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		7 877	8 153	7 876	5 671	5 338	6 098	14.2%
Total imports		354 193	346 211	348 100	359 894	368 354	360 045	-2.3%
Total exports		38	-	38	-	38	1 928	-
Stock changes		-4 511	5 078	-7 031	8 091	-12 564	604	-104.8%
Gross inland consumption		357 521	359 442	348 907	373 656	361 090	364 819	1.0%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		21 829	30 553	32 274	32 283	32 333	32 736	1.2%
Inputs to heat plants		28 147	32 168	25 590	27 097	27 007	26 206	-3.0%
Consumption of energy branch		7 216	5 868	6 607	6 132	6 192	5 563	-10.2%
Distribution losses		12 446	10 961	10 232	9 288	8 770	7 522	-14.2%
Non-energy use		-	-	-	-	-	-	-
Industry		132 511	122 324	121 028	121 493	120 085	117 342	-2.3%
<i>among which:</i>								
Iron&steel industry		10 668	10 902	10 345	12 053	12 701	12 285	-3.3%
Non-ferrous metals		2 308	2 295	2 228	2 362	2 450	2 555	4.3%
Chemical industry		9 533	9 520	9 288	9 377	9 520	10 170	6.8%
Non-met. mineral prod.		28 296	27 068	27 751	27 920	28 050	29 820	6.3%
Food, drink, tobacco		17 553	17 614	16 877	16 150	16 104	18 520	15.0%
Pulp, paper and print		3 934	3 779	3 964	3 642	3 820	3 402	-10.9%
Engineering & metal		11 198	9 781	10 194	11 196	11 270	12 440	10.4%
Other industries		44 481	37 146	36 039	34 518	32 220	23 395	-27.4%
Transport		113	120	189	228	304	340	11.8%
Services & households etc.		154 985	161 252	153 894	181 661	166 399	175 110	5.2%
<i>among which:</i>								
Households		96 615	96 266	95 334	110 580	103 720	111 740	7.7%
Services		54 852	61 862	55 388	67 943	59 367	60 195	1.4%




## 6.1 Hard coal


 eurostat	CESKA REPUBLIKA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	66 879	58 632	64 709	65 599	62 855	63 436	0.9%	
Total imports	1 580	1 040	1 095	1 203	1 217	1 281	5.3%	
Total exports	10 467	9 356	8 654	8 690	7 639	6 752	-11.6%	
Stock changes	634	704	3 486	477	179	210	17.3%	
Gross inland consumption	58 626	51 020	60 636	58 589	56 612	58 175	2.8%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	
Poland	-	-	-	-	-	-	-	
CIS	-	-	-	-	-	-	-	
Australia	-	-	-	-	-	-	-	
South Africa	-	-	-	-	-	-	-	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	38 067	38 606	43 862	44 752	43 304	42 977	-0.8%	
Inputs to heat plants	822	632	744	767	779	753	-3.3%	
Consumption of energy branch	7	9	9	10	10	8	-20.0%	
Industry								
<i>among which:</i>								
Iron&steel industry	1 282	817	1 032	1 104	944	957	1.4%	
Non-ferrous metals	5	1	19	13	15	14	-6.7%	
Chemical industry	364	1 221	2 560	1 673	1 720	2 508	45.8%	
Non-met. mineral prod.	465	323	450	431	341	316	-7.3%	
Food, drink, tobacco	344	198	322	263	265	325	22.6%	
Pulp, paper and print	197	188	248	200	191	202	5.8%	
Engineering & metal	325	220	585	452	442	617	39.6%	
Other industries	128	39	947	58	60	94	56.7%	
Services & households etc.	3 275	2 750	3 216	2 177	1 816	2 573	41.7%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	CESKA REPUBLIKA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	4 009	3 332	3 411	3 522	3 537	3 556	0.5%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	652	512	453	507	501	470	-6.2%
Brown coal briquettes	325	288	253	280	302	314	4.0%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	29 884	23 381	25 266	25 274	25 904	25 236	-2.6%
Blast-furnace gas	31 062	22 429	26 510	25 002	25 891	28 241	9.1%
Gasworks gas	13 499	12 748	13 747	13 682	13 719	14 555	6.1%
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	2 173	1 864	2 208	2 291	2 154	2 242	4.1%
<i>among which:</i>							
Iron & steel industry	1 894	1 613	1 953	2 023	1 901	1 981	4.2%
Services & households	148	137	156	162	157	158	0.6%
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	10	21	9	8	8	12	50.0%
<i>among which:</i>							
Industry	2	4	2	2	2	4	100.0%
Services & households	8	17	7	6	6	8	33.3%
Brown coal briquettes	127	122	133	112	123	126	2.4%
<i>among which:</i>							
Industry	1	1	-	-	-	-	-
Services & households	126	121	133	112	123	126	2.4%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	14 202	9 948	10 596	11 963	11 497	11 699	1.8%
Blast-furnace gas	14 401	11 304	12 588	13 655	12 530	15 405	22.9%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	26 000	23 370	25 716	25 497	25 413	26 384	3.8%
Inputs to heat plants	1 466	1 048	1 082	1 070	1 038	997	-3.9%
Consumption of energy branch	15 179	11 724	14 758	10 662	13 247	13 180	-0.5%
Consumption in industry	28 603	21 252	23 184	25 618	24 027	27 104	12.8%


## 7. Renewable energy sources

		CESKA REPUBLIKA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	650	758	649	745	935	1 247	33.3%
Hydro (excl. pumping)		120	144	151	177	214	119	-44.5%
Wind		-	-	-	-	-	-	-
Solar		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Biomass		530	614	498	568	721	1 128	56.4%
	<i>among which:</i>							
Wood, wood-waste		473	472	319	368	493	895	81.6%
Municipal solid waste		-	75	88	105	108	100	-7.1%
Biogas		45	41	36	37	36	41	14.9%
Gross inland consumption		650	756	649	742	910	1 212	33.2%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		207	340	289	287	284	294	3.4%
	<i>among which:</i>							
Wood, wood-waste		162	226	190	190	188	196	4.1%
Municipal waste		-	75	64	63	63	43	-31.7%
Biogas		45	39	34	34	34	20	-40.0%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	323	274	212	280	412	799	94.2%
	<i>by sector:</i>							
Industry		310	245	131	183	306	215	-29.9%
Services & households etc.		-	15	48	68	79	560	604.2%
Transport		13	14	33	29	26	25	-5.0%
	<i>by source:</i>							
Biomass		323	274	212	280	412	799	94.2%
	<i>among which:</i>							
Wood, wood-waste		310	244	129	177	305	699	129.3%
Municipal waste		-	0	24	42	45	22	-50.7%
Biogas		-	2	2	3	2	21	820.8%
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		-	256	245	265	254	242	-4.7%
Hydro with installed capacity > 1 & <10 MW		-	311	258	426	495	418	-15.6%
Hydro with installed capacity > 10 MW		-	1 114	1 255	1 363	1 743	723	-58.5%
Wood, Wood-waste		428	528	382	381	367	373	1.6%
Municipal waste		-	7	5	4	4	16	300.0%
Biogas		159	148	135	133	127	108	-15.0%

	CESKA REPUBLIKA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	-	92	52	54	104	107	2.9%
Hydro with installed capacity > 1 & <10 MW	-	101	90	106	134	144	7.5%
Hydro with installed capacity > 10 MW	-	815	810	840	762	753	-1.2%
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	16	31	67	71	104	113	8.7%
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		DANMARK					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	20 308	23 690	27 587	26 978	28 452	28 308
Net energy imports		1 568	-3 260	-7 076	-5 693	-8 523	-6 867
Net oil imports		-338	-4 693	-8 097	-6 746	-9 165	-9 260
Net gas imports		-2 518	-2 568	-2 882	-3 054	-2 984	-2 594
Gross inland energy consumption		20 966	20 215	19 669	20 167	19 821	20 676
Final energy consumption		14 985	14 935	14 617	14 946	14 708	14 901
Industry		3 032	3 029	2 960	2 978	2 917	2 883
Transport		4 673	4 738	4 720	4 747	4 719	4 902
Services and households etc.		7 280	7 168	6 937	7 220	7 072	7 116
Gross electricity generation	GWh	41 100	38 897	36 035	37 697	39 269	46 196
Final electricity consumption		32 101	32 229	32 461	32 555	32 502	32 386
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	149 049	152 977	157 309	159 363	160 164	161 290
Population	1000 per.	5 295	5 314	5 330	5 349	5 368	5 384
Industry added value	Mio EUR	32 618	33 770	34 776	34 590	33 943	34 021
Total imports (current prices)	Mio EUR	53 429	56 367	64 004	66 217	71 026	70 017
among which:							
All energy commodities		1 375	1 626	2 561	2 334	2 193	2 290
Oil products		1 020	1 339	2 248	1 865	1 733	1 730
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	140.7	132.1	125.0	126.5	123.8	128.2
Final energy consumption / GDP(95)		100.5	97.6	92.9	93.8	91.8	92.4
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		93.0	89.7	85.1	86.1	85.9	84.8
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		19.4	18.8	17.8	18.2	18.1	18.2
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 960	3 804	3 690	3 770	3 692	3 841
Final energy consumption / capita		2 830	2 811	2 742	2 794	2 740	2 768
Household consumption / capita		838	815	776	814	786	790
Electricity consumption / capita	kWh/cap.	6 409	6 309	6 084	6 133	6 024	5 970
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	7.0	-15.2	-33.7	-26.8	-41.1	-31.7
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	71.5	73.9	74.3	74.1	74.2	72.1
Efficiency of thermal power stations		62.0	63.9	64.7	65.4	66.3	65.0

## 2. Energy balance

### Principal aggregates by product

 eurostat	DANMARK						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	20 308	23 690	27 587	26 978	28 452	28 308	-0.5%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	11 661	14 763	18 132	17 238	18 504	18 515	0.1%
Natural Gas	6 834	7 024	7 411	7 589	7 603	7 203	-5.3%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	2	3	2	2	3	2	-34.4%
Biomass	1 560	1 633	1 668	1 767	1 913	2 099	9.7%
<b>Imports</b>							
Total	16 542	15 357	14 839	14 339	13 319	14 799	11.1%
<i>among which:</i> Hard coal	4 840	4 243	3 825	4 138	3 775	5 635	49.3%
Crude oil and feedstocks	4 871	4 868	4 072	3 285	3 499	3 631	3.8%
Petroleum products	6 492	5 745	6 124	6 093	5 146	4 752	-7.6%
Natural Gas	-	-	-	-	-	-	-
Electricity	282	427	724	705	769	604	-21.4%
<b>Exports</b>							
Total	14 974	18 617	21 915	20 032	21 842	21 666	-0.8%
<i>among which:</i> Crude oil and feedstocks	8 488	11 252	13 678	12 200	14 000	13 678	-2.3%
Petroleum products	3 212	4 054	4 615	3 924	3 809	3 965	4.1%
Natural gas	2 518	2 568	2 882	3 054	2 984	2 594	-13.1%
Electricity	653	626	667	754	947	1 339	41.4%
<b>Gross inland consumption</b>							
Total	20 966	20 215	19 669	20 167	19 821	20 676	4.3%
<i>among which:</i> Solid fuels	5 662	4 608	4 013	4 215	4 187	5 665	35.3%
Crude oil and petrol. prod.	9 567	9 371	9 044	9 125	8 736	8 339	-4.5%
Natural gas	4 272	4 491	4 449	4 631	4 627	4 661	0.7%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	1 832	1 940	2 103	2 242	2 446	2 742	12.1%
<b>Transformation input</b>							
Total	17 825	17 441	16 786	17 107	16 879	18 251	8.1%
<i>among which:</i> Crude oil and feedstocks	7 985	8 308	8 452	8 311	8 079	8 420	4.2%
Petroleum products	1 534	1 496	1 395	1 394	1 209	541	-55.2%
Hard coal	5 284	4 387	3 668	3 942	3 952	5 473	38.5%
Lignite and peat	-	-	-	-	-	-	-
Renewables	1 017	1 087	1 095	1 194	1 307	1 497	14.6%
<b>Transformation output</b>							
Total	14 284	14 315	13 984	14 167	14 061	14 925	6.1%
<i>among which:</i> Electricity	3 289	3 081	2 731	2 870	2 959	3 498	18.2%
Heat	3 039	2 958	2 860	3 085	3 056	3 105	1.6%



in 1 000 toe

**DANMARK**

**1998**    **1999**    **2000**    **2001**    **2002**    **2003**    **03/02**

**Final energy consumption**

Total	14 985	14 935	14 617	14 946	14 708	14 901	1.3%
<i>among which:</i> Solid fuels	353	317	307	244	220	208	-5.2%
Petroleum products	7 147	7 168	6 950	7 015	6 909	7 009	1.4%
Natural Gas	1 738	1 748	1 660	1 762	1 650	1 697	2.8%
Renewables	561	581	631	666	706	716	1.4%
Electricity	2 760	2 771	2 791	2 799	2 795	2 785	-0.4%

**Final energy consumption by sector**

**Industry**

Total	3 032	3 029	2 960	2 978	2 917	2 883	-1.1%
<i>among which:</i> Solid fuels	328	298	282	216	199	174	-12.8%
Petroleum Products	792	783	752	793	781	780	-0.1%
Natural Gas	811	838	790	817	758	764	0.8%
Renewables	104	103	111	122	156	161	2.8%
Electricity	857	854	860	863	853	836	-2.1%


**Transport**

Total	4 673	4 738	4 720	4 747	4 719	4 902	3.9%
<i>among which:</i> Motor spirit	2 068	2 060	2 031	2 003	2 011	2 017	0.3%
Diesel oil	1 766	1 799	1 790	1 823	1 875	2 039	8.7%
Jet fuel	770	807	820	843	739	761	2.9%
Electricity	28	29	30	30	31	30	-3.3%

**Services&households**


Total	7 280	7 168	6 937	7 220	7 072	7 116	0.6%
<i>among which:</i> Solid fuels	25	19	25	29	20	34	69.4%
Gas oil	1 565	1 538	1 395	1 399	1 338	1 268	-5.2%
Natural Gas	927	910	870	946	892	932	4.5%
Renewables	457	478	520	544	549	555	1.1%
Electricity	1 876	1 888	1 901	1 907	1 910	1 919	0.5%
Heat	2 261	2 173	2 090	2 267	2 238	2 297	2.6%

### 3.1 Electricity balance


 eurostat	DANMARK						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	41 100	38 897	36 035	37 697	39 269	46 196	17.6%
<i>among which:</i>							
Hydro	27	31	29	28	32	21	-34.4%
Wind	2 820	3 029	4 242	4 306	4 877	5 561	14.0%
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	38 253	35 837	31 764	33 363	34 360	40 614	18.2%
<i>of which:</i>							
Hard coal	23 652	20 081	16 670	17 822	18 257	25 304	38.6%
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	4 965	4 879	4 435	4 168	4 011	2 345	-41.5%
Natural gas	8 167	9 078	8 805	9 263	9 590	9 802	2.2%
Derived gases	-	-	-	-	-	-	-
Biomass	1 455	1 799	1 755	2 110	2 502	3 163	26.4%
Industrial wastes	14	-	99	-	-	-	-
Total net generation	39 215	37 023	34 443	36 143	37 317	43 817	17.4%
<b>Imports and exports</b>							
Total imports	3 280	4 963	8 417	8 199	8 939	7 023	-21.4%
Total exports	7 600	7 275	7 752	8 774	11 010	15 568	41.4%
<b>Consumption and losses</b>							
Consumption of the energy branch	2 456	2 438	2 149	2 224	2 615	3 134	19.8%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	2 224	1 916	2 090	2 357	2 093	2 151	2.8%
Final energy consumption	32 101	32 229	32 461	32 555	32 502	32 386	-0.4%
<i>of which:</i>							
Industry	9 963	9 931	10 001	10 032	9 924	9 720	-2.1%
<i>among which:</i>							
Iron&steel industry	612	714	733	753	424	415	-2.1%
Non-ferrous metals	86	73	74	63	65	64	-1.5%
Chemical industry	1 157	1 264	1 232	1 330	1 363	1 335	-2.1%
Non-met. mineral prod.	846	870	904	865	883	866	-1.9%
Food, drink, tobacco	2 315	2 193	2 258	2 289	2 336	2 288	-2.1%
Pulp, paper and print	723	739	746	756	775	760	-1.9%
Engineering & metal	2 027	1 791	1 782	1 767	1 812	1 775	-2.0%
Other industries	1 899	1 989	1 977	1 909	1 959	1 916	-2.2%
Transport	325	341	348	348	364	352	-3.3%
Services & households etc.	21 813	21 957	22 112	22 175	22 214	22 314	0.5%
<i>among which:</i>							
Households	10 176	10 283	10 242	10 146	10 188	10 269	0.8%




## 3.2 Electrical capacity, fuel inputs and heat


		DANMARK						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	12 545	12 727	13 057	12 759	13 327	13 313	-0.1%
<i>by source:</i>								
Conventional thermal		11 091	10 945	10 233	10 192	10 430	10 187	-2.3%
<i>of which:</i>								
Steam		9 061	8 892	8 154	7 607	7 737	7 463	-3.5%
Gas turbine		549	549	549	553	545	545	0.0%
Combined cycle		523	533	518	1 004	1 100	1 101	0.1%
Internal combustion		958	970	1 012	1 028	1 048	1 078	2.9%
Nuclear		-	-	-	-	-	-	-
Hydro		11	11	10	11	11	11	0.0%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		1 443	1 771	2 814	2 556	2 886	3 115	7.9%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		11 999	12 170	12 089	12 204	12 767	12 700	-0.5%
Autoproducers		547	557	572	557	562	615	9.4%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	9 229	8 571	7 822	8 241	8 277	9 268	12.0%
<i>among which:</i>								
Hard coal		5 282	4 386	3 667	3 941	3 951	5 472	38.5%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		1 471	1 440	1 344	1 329	1 156	492	-57.4%
Natural gas		1 913	2 088	2 112	2 188	2 268	2 234	-1.5%
Renewables		562	658	699	782	902	1 069	18.5%
Heating plants		610	561	513	555	523	563	7.6%
<i>among which:</i>								
Hard coal		2	1	1	1	1	1	0.0%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		63	56	51	65	53	49	-7.1%
Natural gas		89	74	63	77	63	83	31.2%
Renewables		456	430	397	413	407	431	5.9%
<b>Heat production and consumption</b>								
Total heat production	TJ	3 039	2 958	2 860	3 085	3 056	3 105	1.6%
<i>among which: in heating plants</i>		606	562	527	564	528	576	9.0%
Heat consumption		2 399	2 325	2 255	2 435	2 406	2 465	2.4%
<i>of which: in industry</i>		137	152	164	168	168	168	0.0%
<i>in households and services</i>		2 261	2 173	2 090	2 267	2 238	2 297	2.6%
<i>among which: in households</i>		1 546	1 483	1 418	1 538	1 506	1 541	2.3%

## 4.1 Crude oil and feedstocks


 eurostat	in 1 000 t	DANMARK						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		11 432	14 465	17 780	16 887	18 143	18 143	0.0%
Total imports		4 776	4 771	3 994	3 219	3 432	3 558	3.7%
Total exports		8 322	11 025	13 413	11 951	13 727	13 403	-2.4%
Stock changes		-55	-120	-66	-4	58	-48	-182.8%
Refinery intake		7 829	8 142	8 289	8 143	7 922	8 251	4.2%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		4 708	4 424	2 596	2 937	3 231	3 492	8.1%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	8 850	9 150	9 150	:	:	:	
<i>among which:</i>								
Cracking and others		4 580	4 580	4 580	:	:	:	
Reforming		1 740	1 740	1 740	:	:	:	

## 4.2 Petroleum products


 eurostat	DANMARK						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	7 800	8 110	8 231	8 044	7 890	8 154	3.3%
<i>among which:</i>							
Motor spirit	2 176	2 259	2 278	2 239	2 074	2 082	0.4%
Kerosene and jet fuel	378	519	496	543	529	611	15.5%
Naphtha	12	-	6	5	-	-	-
Gas/diesel oil	3 244	3 273	3 260	3 220	3 258	3 451	5.9%
Residual fuel oil	1 560	1 599	1 717	1 567	1 574	1 519	-3.5%
Total imports	6 561	5 823	6 200	6 177	5 206	4 805	-7.7%
Total exports	3 189	4 026	4 590	3 886	3 779	3 932	4.0%
Bunkers	1 400	1 316	1 352	1 139	937	990	5.7%
Stock changes	-333	712	404	-262	257	90	-65.0%
Gross inland consumption	1 658	1 214	676	907	763	-17	-102.2%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	75	149	77	91	48	43	-10.4%
United Kingdom	205	178	261	311	180	116	-35.6%
Norway	506	507	508	492	640	574	-10.3%
OPEC	1 609	1 443	1 428	1 674	1 088	281	-74.2%
Imports by product							
<i>among which:</i>							
Motor spirit	1 020	938	1 016	1 034	1 006	871	-13.4%
Kerosene and jet fuel	729	533	674	797	571	528	-7.5%
Gas/diesel oil	2 198	1 945	1 984	1 834	1 718	1 927	12.2%
Residual fuel oil	2 100	1 854	1 963	1 947	1 369	921	-32.7%
Exports by product							
<i>among which:</i>							
Motor spirit	1 167	1 160	1 388	1 295	1 126	1 012	-10.1%
Kerosene and jet fuel	114	324	348	404	368	494	34.2%
Gas/diesel oil	693	1 177	1 219	901	979	1 137	16.1%
Residual fuel oil	1 102	1 243	1 441	1 132	1 179	1 161	-1.5%
<b>Consumption</b>							
Inputs to electricity plants	1 530	1 496	1 397	1 381	1 200	503	-58.1%
Inputs to heating plants	69	63	56	70	58	52	-10.3%
Non-energy use	291	310	300	262	268	269	0.4%
Final energy consumption	7 038	7 068	6 852	6 924	6 822	6 919	1.4%
Industry	833	835	807	856	844	843	-0.1%
<i>among which by product:</i>							
Gas/diesel oil	344	361	342	384	361	379	5.0%
Residual fuel oil	274	215	203	184	198	172	-13.1%

 eurostat	DANMARK							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		4	4	4	6	5	6	20.0%
Non-ferrous metals		3	2	3	4	4	4	0.0%
Chemical industry		50	30	29	36	35	34	-2.9%
Non-met. mineral prod.		285	282	290	302	301	304	1.0%
Food, drink, tobacco		173	178	172	176	180	169	-6.1%
Pulp, paper and print		10	10	10	12	11	10	-9.1%
Engineering & metal		71	78	73	71	66	70	6.1%
Other industries		199	213	188	194	189	191	1.1%
<b>Transport</b>		4 507	4 570	4 552	4 580	4 553	4 734	4.0%
<i>among which:</i>								
Motor spirit		1 968	1 960	1 933	1 906	1 914	1 919	0.3%
Jet fuel		750	786	798	821	720	741	2.9%
Diesel oil		1 748	1 781	1 772	1 804	1 856	2 018	8.7%
<b>Services &amp; households etc.</b>		1 698	1 663	1 493	1 488	1 425	1 342	-5.8%
<i>among which:</i>								
Gas oil		1 549	1 522	1 381	1 385	1 324	1 255	-5.2%
Residual fuel oil		74	72	53	45	47	29	-38.3%
<b>Stocks at end of period</b>								
Crude oil and feedstocks		536	656	723	727	669	717	7.2%
Petroleum products		2 868	2 208	1 832	1 981	1 875	1 855	-1.1%


## 5. Natural gas

 eurostat	DANMARK							
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		317 935	326 735	344 772	353 062	353 693	335 062	-5.3%
Total imports		-	-	-	-	-	-	-
Total exports		117 136	119 443	134 087	142 090	138 837	120 692	-13.1%
Stock changes		-2 065	1 613	-3 732	4 461	408	2 445	499.3%
Gross inland consumption		198 734	208 905	206 953	215 433	215 264	216 815	0.7%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		88 998	97 115	98 263	101 799	105 499	103 938	-1.5%
Inputs to heat plants		4 146	3 424	2 928	3 579	2 926	3 838	31.2%
Consumption of energy branch		24 197	26 224	27 807	27 171	29 237	29 279	0.1%
Distribution losses		133	133	134	133	134	133	-0.7%
Non-energy use		-	-	-	-	-	-	-
Industry		37 723	38 988	36 752	37 984	35 277	35 562	0.8%
<i>among which:</i>								
Iron&steel industry		1 979	2 078	2 016	1 967	1 906	1 915	0.5%
Non-ferrous metals		177	160	154	202	195	196	0.5%
Chemical industry		3 481	4 049	3 813	4 040	3 643	3 785	3.9%
Non-met. mineral prod.		6 407	7 019	6 939	6 283	6 085	6 123	0.6%
Food, drink, tobacco		13 956	13 002	12 762	12 706	11 524	11 306	-1.9%
Pulp, paper and print		2 656	2 330	2 295	2 687	2 338	2 443	4.5%
Engineering & metal		4 791	5 147	4 685	4 935	4 715	4 750	0.7%
Other industries		2 705	2 989	2 668	2 899	2 855	2 927	2.5%
Transport		-	-	-	-	-	-	-
Services & households etc.		43 109	42 350	40 470	44 005	41 482	43 367	4.5%
<i>among which:</i>								
Households		31 653	31 528	30 011	32 189	30 634	31 692	3.5%
Services		7 571	6 977	6 707	7 830	8 022	8 863	10.5%


## 6.1 Hard coal

 eurostat	DANMARK							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	8 071	7 117	6 415	6 924	6 263	9 515	51.9%	
Total exports	171	200	123	164	168	151	-10.1%	
Stock changes	1 487	755	393	251	810	169	-79.1%	
Gross inland consumption	9 387	7 672	6 685	7 011	6 905	9 533	38.1%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	574	-	-	-	13	246	1792.3%	
Poland	2 678	2 640	2 311	2 094	2 263	880	-61.1%	
CIS	221	837	1 295	1 816	1 085	980	-9.7%	
Australia	446	500	143	160	250	569	127.6%	
South Africa	2 901	1 767	1 672	1 880	1 214	2 971	144.7%	
Colombia	1 247	1 244	812	415	792	2 681	238.5%	
<b>Consumption</b>								
Inputs to electricity plants	8 846	7 404	6 190	6 600	6 577	9 265	40.9%	
Inputs to heat plants	3	2	2	1	1	1	0.0%	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	470	419	402	325	275	238	-13.5%	
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	19	21	20	16	14	13	-7.1%	
Non-met. mineral prod.	294	269	258	184	156	135	-13.5%	
Food, drink, tobacco	100	93	89	103	87	75	-13.8%	
Pulp, paper and print	-	-	-	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	-	-	-	-	-	-	-	
Services & households etc.	39	30	41	47	33	57	72.7%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	


## 6.2 Coal derivatives and peat

	DANMARK						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	46	48	40	38	37	35	-5.4%
<i>among which:</i>							
Iron & steel industry	-	1	1	1	1	1	0.0%
Services & households	1	-	-	-	-	1	
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	3	2	1	2	1	-	
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	3	2	1	2	1	-	
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	938	791	725	757	664	657	-1.1%
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	153	57	57	47	47	47	0.0%

## 7. Renewable energy sources


		DANMARK						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	1 813	1 904	2 044	2 150	2 346	2 590	10.4%
Hydro (excl. pumping)		2	3	2	2	3	2	-34.4%
Wind		242	260	365	370	419	478	14.0%
Solar		7	7	7	8	8	9	7.6%
Geothermal		1	1	1	2	2	2	5.9%
Biomass		1 560	1 633	1 668	1 767	1 913	2 099	9.7%
	<i>among which:</i>							
Wood, wood-waste		861	873	873	925	1 021	1 111	8.8%
Municipal solid waste		635	696	726	770	812	865	6.6%
Biogas		64	63	70	73	80	85	6.4%
Gross inland consumption		1 832	1 940	2 103	2 242	2 446	2 742	12.1%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		1	1	1	2	2	2	5.9%
Biomass		1 017	1 087	1 095	1 194	1 307	1 497	14.6%
	<i>among which:</i>							
Wood, wood-waste		345	373	348	407	487	620	27.4%
Municipal waste		617	660	688	726	754	807	6.9%
Biogas		55	54	58	61	66	71	7.3%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	568	588	639	674	714	724	1.4%
	<i>by sector:</i>							
Industry		104	103	111	122	156	161	2.8%
Services & households etc.		463	485	528	552	558	563	1.0%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		561	581	631	666	706	716	1.4%
	<i>among which:</i>							
Wood, wood-waste		535	537	583	611	635	643	1.3%
Municipal waste		18	36	38	44	57	59	2.8%
Biogas		8	8	10	11	14	14	1.6%
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		15	10	10	14	32	21	-34.4%
Hydro with installed capacity > 1 & <10 MW		12	21	19	14	17	18	5.9%
Hydro with installed capacity > 10 MW		-	-	-	-	15	3	-80.0%
Wood, Wood-waste		432	531	409	587	878	1 407	60.3%
Municipal waste		834	1 073	1 238	938	1 384	1 479	6.9%
Biogas		93	197	208	173	240	277	15.4%



	DANMARK						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	7	5	5	7	7	7	0.0%
Hydro with installed capacity > 1 & <10 MW	4	6	5	4	4	4	0.0%
Hydro with installed capacity > 10 MW	-	-	-	-	-	-	-
Wood, Wood-waste	40	110	86	133	215	311	44.7%
Municipal waste	167	198	233	242	270	285	5.6%
Biogas	20	40	40	47	53	58	9.4%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	25	40	45	12.5%
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	230	246	250	271	282	298	5.7%


# 1. Energy economy

## Key figures and energy indicators

		DEUTSCHLAND					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	131 597	134 535	132 095	131 555	131 613p	131 890
Net energy imports		212 748	202 556	204 702	215 720	208 663	212 124
Net oil imports		139 443	127 817	125 974	131 445	123 296	125 233
Net gas imports		56 045	57 300	56 865	58 197	60 071	62 437
Gross inland energy consumption		344 484	338 421	340 225	350 391	342 834p	344 487
Final energy consumption		224 450p	219 934p	228 700p	231 900p	225 796p	230 443p
Industry		57 707p	56 540p	60 821p	59 280p	57 711p	58 678p
Transport		64 861	66 903	65 978	64 588	64 138	62 161
Services and households etc.		101 883p	96 491p	101 901p	108 032p	103 946p	109 604p
Gross electricity generation	GWh	556 714	555 465	571 551	586 340	571 645	599 470
Final electricity consumption		466 476	467 483	482 603	505 280	498 840	509 265
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	2 024 039	2 064 742	2 131 016	2 156 375	2 159 785	2 159 785
Population	1000 per.	82 057	82 037	82 164	82 260	82 440	82 537
Industry added value	Mio EUR	563 160	567 748	593 268	593 358	582 759	578 469
Total imports (current prices)	Mio EUR	555 672	603 186	664 521	672 362	665 850	694 092
among which:							
All energy commodities		23 509	25 648	47 461	47 607	43 596	47 522
Oil products		15 282	18 374	35 479	31 867	28 073	29 460
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	170.2	163.9	159.7	162.5	158.7	159.5
Final energy consumption / GDP(95)		110.9	106.5	107.3	107.5	104.5	106.7
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		102.5	99.6	102.5	99.9	99.0	101.4
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		25.7	24.4	20.3	21.3	20.3	21.9
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	4 198	4 125	4 141	4 260	4 159	4 174
Final energy consumption / capita		2 735	2 681	2 783	2 819	2 739	2 792
Household consumption / capita		816	763	879	931	893	931
Electricity consumption / capita	kWh/cap.	6 458	6 429	6 564	6 714	6 525	6 699
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	61.4	59.5	59.8	61.2	60.4	61.1
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	65.2	65.0	67.2	66.2	65.9	66.9
Efficiency of thermal power stations		46.4	45.1	54.7	53.5	52.1	52.1

## 2. Energy balance

### Principal aggregates by product

 eurostat	DEUTSCHLAND						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	131 597	134 535	132 095	131 555	131 613p	131 890	0.2%
<i>among which:</i> Hard coal	30 633	28 506	24 164	19 697	18 875	18 693	-1.0%
Lignite and peat	35 057	34 053	35 437	38 482	39 889	39 298	-1.5%
Crude oil	2 964	2 778	3 208	3 322	3 559	3 747	5.3%
Natural Gas	15 670	16 708	15 800	15 932	15 987	15 920	-0.4%
Nuclear heat	38 912	43 853	43 750	44 189	42 522	42 578	0.1%
Hydro-electricity	1 511	1 689	1 995	1 955	1 988	1 656	-16.7%
Biomass	6 362	6 384	6 830	6 935	7 093	7 932	11.8%
<b>Imports</b>							
Total	236 377	229 042	234 913	244 542	238 233	242 641	1.9%
<i>among which:</i> Hard coal	14 013	14 271	17 390	20 778	20 541	21 641	5.4%
Crude oil and feedstocks	110 495	105 143	105 061	106 584	106 404	108 100	1.6%
Petroleum products	45 362	41 044	42 741	44 337	36 752	36 524	-0.6%
Natural Gas	59 333	61 591	61 085	63 444	65 858	68 515	4.0%
Electricity	3 294	3 491	3 881	3 936	4 159	4 222	1.5%
<b>Exports</b>							
Total	23 629	26 486	30 211	28 822	29 570	30 517	3.2%
<i>among which:</i> Crude oil and feedstocks	1 403	1 761	3 260	1 044	1 341	657	-51.0%
Petroleum products	15 012	16 609	18 568	18 433	18 520	18 734	1.2%
Natural gas	3 289	4 291	4 220	5 248	5 787	6 078	5.0%
Electricity	3 349	3 401	3 618	3 622	3 299	4 504	36.5%
<b>Gross inland consumption</b>							
Total	344 484	338 421	340 225	350 391	342 834p	344 487	0.5%
<i>among which:</i> Solid fuels	85 585	80 110	83 724	86 435	84 631	84 956	0.4%
Crude oil and petrol. prod.	137 666	132 954	129 872	132 707	127 424	125 256	-1.7%
Natural gas	72 729	71 996	71 853	75 591	75 571	79 208	4.8%
Nuclear Energy	38 912	43 853	43 750	44 189	42 522	42 578	0.1%
Renewables	8 360	8 637	9 735	9 933	10 605p	11 582	9.2%
<b>Transformation input</b>							
Total	261 021p	262 306	265 667	265 733	264 110p	271 828	2.9%
<i>among which:</i> Crude oil and feedstocks	120 305	118 500	119 856	117 945	117 921	120 110	1.9%
Petroleum products	2 246	2 105	1 796	1 746	1 662	1 769	6.4%
Hard coal	41 692	40 353	40 931	39 040	37 980	39 590	4.2%
Lignite and peat	34 981	34 612	37 266	39 072	40 209	39 492	-1.8%
Renewables	2 014	2 081	2 146	2 125	2 122	2 734	28.8%
<b>Transformation output</b>							
Total	189 738p	185 963p	195 809p	193 079p	190 897p	195 791p	2.6%
<i>among which:</i> Electricity	45 620	45 258	46 108	47 174	45 393	47 822	5.4%
Heat	9 950p	9 950p	17 045p	17 045p	17 045p	17 045p	0.0%

**Final energy consumption**

Total	224 450p	219 934p	228 700p	231 900p	225 796p	230 443p	2.1%
<i>among which:</i> Solid fuels	11 784	10 486	10 932	10 598	10 132	9 793	-3.3%
Petroleum products	104 586	101 252	98 052	100 779	96 206	94 794	-1.5%
Natural Gas	51 921	51 948	54 928	53 908	53 882	58 848	9.2%
Renewables	4 348	4 303	4 684	4 811	4 970	5 074	2.1%
Electricity	40 110	40 196	41 496	43 446	42 893	43 789	2.1%

**Final energy consumption by sector**
**Industry**

Total	57 707p	56 540p	60 821p	59 280p	57 711p	58 678p	1.7%
<i>among which:</i> Solid fuels	10 079	9 098	9 656	9 334	9 073	8 746	-3.6%
Petroleum Products	6 704	6 106	5 296	5 671	5 293	6 403	21.0%
Natural Gas	18 037	18 564	21 222	18 633	18 607	19 183	3.1%
Renewables	451	452	453	476	475	-	
Electricity	17 910	17 720	19 082	20 344	20 084	19 930	-0.8%


**Transport**

Total	64 861	66 903	65 978	64 588	64 138	62 161	-3.1%
<i>among which:</i> Motor spirit	31 612	31 580	30 064	29 160	28 363	26 949	-5.0%
Diesel oil	25 090	26 785	26 921	26 632	26 927	26 132	-3.0%
Jet fuel	6 624	7 002	7 345	7 010	6 984	7 148	2.4%
Electricity	1 383	1 362	1 368	1 410	1 392	1 388	-0.3%


**Services&households**

Total	101 883p	96 491p	101 901p	108 032p	103 946p	109 604p	5.4%
<i>among which:</i> Solid fuels	1 704	1 388	1 268	1 240	1 036	1 047	1.0%
Gas oil	32 946	28 221	26 900	30 904	27 408	26 957	-1.6%
Natural Gas	33 885	33 383	33 706	35 275	35 275	39 665	12.4%
Renewables	3 815	3 745	4 028	4 051	4 048	4 547	12.3%
Electricity	20 817	21 115	21 046	21 693	21 416	22 471	4.9%
Heat	7 065p	7 065p	13 396p	13 396p	13 396p	13 396p	0.0%


### 3.1 Electricity balance

 eurostat	DEUTSCHLAND							
	in GWh	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>								
Total gross generation	556 714	555 465	571 551	586 340	571 645	599 470	4.9%	
<i>among which:</i>								
Hydro	21 590	23 613	25 962	27 253	27 864	24 440	-12.3%	
Wind	4 593	5 528	9 352	10 456	15 856	18 859	18.9%	
Geothermal	-	-	-	-	-	-	-	
Nuclear	161 644	170 004	169 606	171 305	164 842	165 060	0.1%	
Conventional thermal	368 887	356 320	366 631	377 326	363 083	391 111	7.7%	
<i>of which:</i>								
Hard coal	153 439	143 083	143 164	138 999	133 729	144 052p	7.7%	
Lignite and peat	139 402	135 984	148 332	154 669	150 816	162 458p	7.7%	
Petroleum products	6 376	5 845	4 785	4 773	4 342	4 677p	7.7%	
Natural gas	54 312	55 063	52 495	58 430	54 061	58 234p	7.7%	
Derived gases	6 687	6 907	7 475	7 913	6 999	7 539p	7.7%	
Biomass	4 785	5 251	6 175	5 250	7 688	8 792	14.4%	
Industrial wastes	3 886	4 187	4 205	7 292	5 448	5 359p	-1.6%	
Total net generation	517 942	518 662	533 552	549 033	536 122	564 671	5.3%	
<b>Imports and exports</b>								
Total imports	38 315	40 598	45 134	45 779	48 370	49 107	1.5%	
Total exports	38 953	39 558	42 077	42 122	38 372	52 379	36.5%	
<b>Consumption and losses</b>								
Consumption of the energy branch	61 479	60 711	56 420	54 425	52 507	54 792	4.4%	
<i>of which:</i>								
Consumption for pumped-storage	1 357	1 338	3 282	1 514	1 579	2 552	61.6%	
Network losses	24 138	24 372	32 824	25 772	25 556	26 968	5.5%	
Final energy consumption	466 476	467 483	482 603	505 280	498 840	509 265	2.1%	
<i>of which:</i>								
Industry	208 293	206 085	221 926	236 597	233 582	231 785	-0.8%	
<i>among which:</i>								
Iron&steel industry	23 201	22 096	23 654	24 380	24 070	23 874	-0.8%	
Non-ferrous metals	17 943	18 166	18 502	19 070	18 827	18 774	-0.3%	
Chemical industry	53 091	51 151	48 336	49 820	49 185	48 906	-0.6%	
Non-met. mineral prod.	14 875	14 835	14 826	15 281	15 087	15 066	-0.1%	
Food, drink, tobacco	13 875	14 120	14 699	15 150	14 957	14 834	-0.8%	
Pulp, paper and print	19 684	19 981	21 768	22 437	22 151	22 020	-0.6%	
Engineering & metal	27 649	27 925	29 224	30 121	29 738	29 437	-1.0%	
Other industries	31 587	31 633	44 564	53 790	53 102	52 384	-1.4%	
Transport	16 082	15 835	15 910	16 399	16 190	16 144	-0.3%	
Services & households etc.	242 101	245 563	244 767	252 284	249 068	261 336	4.9%	
<i>among which:</i>								
Households	130 832	131 281	128 907	132 865	131 172	139 548	6.4%	


## 3.2 Electrical capacity, fuel inputs and heat

		DEUTSCHLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	113 624	114 691	118 267	119 923	125 995	124 669	-1.1%
<i>by source:</i>								
Conventional thermal		79 784	79 371	80 794	79 380	81 092	80 365	-0.9%
<i>of which:</i>								
Steam		70 795	70 259	70 831	69 000	:	:	
Gas turbine		6 444	6 417	6 279	6 246	:	:	
Combined cycle		1 712	1 790	2 729	3 179	:	:	
Internal combustion		833	905	955	955	:	:	
Nuclear		22 314	22 329	22 396	22 396	23 403	21 439	-8.4%
Hydro		8 854	8 853	8 982	9 393	9 499	8 256	-13.1%
<i>among which:</i>								
Pumped storage		5 857	5 886	4 654	4 562	4 562	4 198	-8.0%
Wind		2 672	4 138	6 095	8 754	12 001	14 609	21.7%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		101 728	97 784	108 229	109 785	116 150	114 739	-1.2%
Autoproducers		11 898	11 437	10 118	10 333	10 105	10 318	2.1%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	83 693p	83 651	85 252	88 842	89 023p	93 665	5.2%
<i>among which:</i>								
Hard coal		32 585	32 781	32 929	32 695	31 652	32 827	3.7%
Lignite and peat		32 227	32 042	34 746	36 278	37 511	36 873	-1.7%
Petroleum products		1 263	1 183	1 107	1 108	1 043	1 091	4.6%
Natural gas		12 333	12 676	11 095	13 217	13 217	16 866	27.6%
Renewables		2 014	2 081	2 146	2 125	2 122	2 622	23.5%
Heating plants		1 739	1 716	1 435	1 423	1 505	1 626	8.0%
<i>among which:</i>								
Hard coal		-	-	-	-	76	98	28.8%
Lignite and peat		2	-	-	36	35	-	
Petroleum products		464	459	219	169	171	213	24.9%
Natural gas		1 252	1 214	1 182	1 182	1 182	1 154	-2.4%
Renewables		-	-	-	-	-	122	
<b>Heat production and consumption</b>								
Total heat production	TJ	9 950p	9 950p	17 045p	17 045p	17 045p	17 045p	0.0%
<i>among which: in heating plants</i>								
		2 849p	2 849p	1 919p	1 919p	1 919p	1 919p	0.0%
Heat consumption		8 737p	8 737p	15 430p	15 430p	15 430p	15 430p	0.0%
<i>of which: in industry</i>								
		1 672p	1 672p	2 034p	2 034p	2 034p	2 034p	0.0%
<i>in households and services</i>								
		7 065p	7 065p	13 396p	13 396p	13 396p	13 396p	0.0%
<i>among which: in households</i>								
		4 081p	4 081p	13 396p	13 396p	13 396p	13 396p	0.0%


## 4.1 Crude oil and feedstocks

 eurostat	DEUTSCHLAND								
	in 1 000 t		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		2 934	2 746	3 166	3 278	3 509	3 690	5.2%	
Total imports		109 379	103 933	103 684	105 171	104 897	106 464	1.5%	
Total exports		1 389	1 741	3 217	1 030	1 322	647	-51.1%	
Stock changes		-2 364	1 660	3 421	-750	-47	-242	-414.9%	
Refinery intake		119 039	117 101	118 265	116 365	116 244	118 295	1.8%	
<b>Imports of Crude Oil by origin</b>									
<i>by region of origin:</i>									
OPEC		31 829	28 804	28 547	23 072	20 547	20 472	-0.4%	
Near and Middle East		13 521	12 954	13 534	11 714	11 197	10 230	-8.6%	
Africa		23 087	21 667	21 295	18 232	18 155	16 884	-7.0%	
<i>by country of origin:</i>									
Algeria		5 519	4 188	6 501	3 958	4 231	3 727	-11.9%	
Nigeria		2 127	1 161	1 983	3 013	2 824	2 883	2.1%	
Saudi Arabia		5 294	4 505	4 568	4 016	3 612	3 880	7.4%	
Kuwait		827	748	643	109	238	-		
United Arab Emirates		2	-	-	-	-	-	-	
Norway		22 220	20 783	18 708	20 969	22 283	22 281	0.0%	
<b>Refining capacity</b>									
Capacity at the end of year	1 000 t/year	109 840	111 540	112 940	:	:	:		
<i>among which:</i>									
Cracking and others		46 430	47 330	48 500	:	:	:		
Reforming		17 000	17 000	17 030	:	:	:		


## 4.2 Petroleum products

 eurostat	DEUTSCHLAND						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	117 200	115 077	116 025	114 292	114 083	116 165	1.8%
among which:							
Motor spirit	26 222	26 829	26 972	26 021	25 970	26 449	1.8%
Kerosene and jet fuel	3 699	4 259	4 328	4 206	4 165	4 204	0.9%
Naphtha	9 638	9 663	9 024	8 495	8 663	8 693	0.3%
Gas/diesel oil	47 821	46 108	46 449	46 943	47 455	48 638	2.5%
Residual fuel oil	13 591	11 873	13 116	13 192	12 183	12 232	0.4%
Total imports	44 727	40 522	42 171	43 669	36 338	36 086	-0.7%
Total exports	15 190	16 664	18 601	18 495	18 584	18 846	1.4%
Bunkers	2 097	2 139	2 247	2 280	2 445	2 664	9.0%
Stock changes	-508	2 503	-842	597	2 449	-1 301	-153.1%
Gross inland consumption	27 149	24 412	20 728	23 806	18 246	13 698	-24.9%
<b>Imports and exports</b>							
Imports by origin							
among which:							
Netherlands	26 086	23 871	24 955	24 234	19 341	19 409	0.4%
United Kingdom	1 183	1 346	1 882	2 145	1 570	921	-41.3%
Norway	1 215	445	477	541	459	814	77.3%
OPEC	466	471	408	543	879	580	-34.0%
Imports by product							
among which:							
Motor spirit	8 760	7 436	8 752	7 838	5 508	5 204	-5.5%
Kerosene and jet fuel	3 010	2 857	3 130	3 396	3 193	3 321	4.0%
Gas/diesel oil	19 451	17 167	16 058	19 545	14 475	14 633	1.1%
Residual fuel oil	2 840	2 443	2 903	2 328	2 925	3 249	11.1%
Exports by product							
among which:							
Motor spirit	3 111	4 392	4 611	4 661	4 399	4 155	-5.5%
Kerosene and jet fuel	74	119	299	517	386	292	-24.4%
Gas/diesel oil	3 894	4 324	5 448	5 576	6 242	6 328	1.4%
Residual fuel oil	4 818	4 012	4 397	4 066	3 611	4 004	10.9%
<b>Consumption</b>							
Inputs to electricity plants	1 293	1 229	1 169	1 163	1 116	1 172	5.0%
Inputs to heating plants	468	463	218	168	170	212	24.7%
Non-energy use	22 809	22 244	22 732	22 319	21 999	20 670	-6.0%
Final energy consumption	102 269	98 969	95 805	98 561	94 084	92 638	-1.5%
Industry							
among which <i>by product</i> :							
Gas/diesel oil	2 853	2 716	2 413	2 250	2 180	2 689	23.3%
Residual fuel oil	2 769	2 348	1 925	2 544	2 380	2 106	-11.5%




 eurostat	DEUTSCHLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	1 458	1 188	933	1 125	888	886	-0.2%	
Non-ferrous metals	146	137	135	130	122	119	-2.5%	
Chemical industry	139	189	70	432	326	1 455	346.3%	
Non-met. mineral prod.	1 379	1 379	1 096	1 059	1 313	1 232	-6.2%	
Food, drink, tobacco	1 012	834	875	860	690	689	-0.1%	
Pulp, paper and print	366	265	212	212	215	211	-1.9%	
Engineering & metal	901	811	728	738	801	780	-2.6%	
Other industries	1 140	1 152	1 093	996	854	851	-0.4%	
<b>Transport</b>	61 427	63 442	62 468	60 994	60 444	58 483	-3.2%	
<i>among which:</i>								
Motor spirit	30 080	30 050	28 607	27 747	26 989	25 643	-5.0%	
Jet fuel	6 450	6 818	7 152	6 825	6 800	6 960	2.4%	
Diesel oil	24 834	26 511	26 646	26 360	26 652	25 865	-3.0%	
<b>Services &amp; households etc.</b>	34 038	29 325	27 980	31 814	28 256	27 774	-1.7%	
<i>among which:</i>								
Gas oil	32 610	27 933	26 625	30 588	27 128	26 682	-1.6%	
Residual fuel oil	132	209	146	6	5	5	0.0%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	19 764	18 104	14 683	15 433	15 480	15 722	1.6%	
Petroleum products	23 216	20 715	21 557	20 960	18 511	19 812	7.0%	


## 5. Natural gas

 eurostat	DEUTSCHLAND							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		728 981	777 245	735 038	741 143	743 728	740 615	-0.4%
Total imports		2 760 192	2 865 234	2 841 697	2 951 423	3 063 709	3 187 328	4.0%
Total exports		152 992	199 636	196 326	244 115	269 209	282 769	5.0%
Stock changes		47 160	-93 600	-37 800	68 040	-22 680	39 600	274.6%
Gross inland consumption		3 383 341	3 349 243	3 342 609	3 516 491	3 515 548	3 684 774	4.8%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		1 225 235	1 290 507	1 299 906	1 235 435	1 249 659	1 398 271	11.9%
Algeria		-	-	-	-	-	-	-
Norway		695 423	720 273	757 969	831 264	964 662	987 800	2.4%
<b>Consumption</b>								
Inputs to electricity plants		573 711	589 696	516 151	614 838	614 838	784 606	27.6%
Inputs to heat plants		58 253	56 488	55 000	55 000	55 000	53 670	-2.4%
Consumption of energy branch		48 392	50 622	51 349	69 669	48 288	32 785	-32.1%
Distribution losses		21 515	22 000	20 000	25 379	6 123	6 000	-2.0%
Non-energy use		100 000	100 000	100 000	100 000	100 000	100 648	0.6%
Industry		839 067	863 601	987 257	866 799	865 590	892 399	3.1%
<i>among which:</i>								
Iron&steel industry		107 388	112 961	115 241	114 864	114 803	107 304	-6.5%
Non-ferrous metals		37 236	36 403	36 880	38 059	37 965	39 700	4.6%
Chemical industry		216 242	223 487	235 428	217 593	225 563	235 870	4.6%
Non-met. mineral prod.		133 106	130 808	131 938	121 035	115 651	120 936	4.6%
Food, drink, tobacco		84 125	91 464	92 428	90 809	99 205	103 738	4.6%
Pulp, paper and print		79 821	90 265	96 359	96 439	92 501	96 728	4.6%
Engineering & metal		120 885	118 204	116 023	118 155	115 172	120 435	4.6%
Other industries		34 446	35 531	46 516	45 478	41 267	43 153	4.6%
Transport		-	-	-	-	-	-	-
Services & households etc.		1 576 317	1 553 000	1 568 000	1 641 000	1 641 000	1 845 209	12.4%
<i>among which:</i>								
Households		1 072 232	1 056 000	1 090 000	1 150 000	1 150 000	1 251 209	8.8%
Services		492 615	486 000	466 000	480 000	480 000	581 000	21.0%


## 6.1 Hard coal


 eurostat	DEUTSCHLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	47 208	43 848	37 376	30 669	29 209	28 753	-1.6%	
Total imports	22 249	22 678	27 948	33 511	33 125	34 899	5.4%	
Total exports	325	212	279	112	227	195	-14.1%	
Stock changes	4 247	341	3 918	3 270	1 178	2 907	146.8%	
Gross inland consumption	73 379	66 655	68 963	67 338	63 285	66 364	4.9%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	838	852	689	827	338	-		
Poland	3 703	5 765	6 794	7 394	6 901	7 233	4.8%	
CIS	5	299	937	2 220	2 035	2 615	28.5%	
Australia	1 860	2 320	3 716	3 221	4 519	5 007	10.8%	
South Africa	5 440	5 765	4 578	5 773	6 798	8 152	19.9%	
Colombia	2 109	2 830	2 719	3 159	2 823	3 969	40.6%	
<b>Consumption</b>								
Inputs to electricity plants	52 482	52 797	52 971	52 594	50 953	52 846	3.7%	
Inputs to heat plants	-	-	-	-	125	161	28.8%	
Consumption of energy branch	21	14	7	6	3	1	-66.7%	
Industry								
<i>among which:</i>								
Iron&steel industry	2 437	2 509	2 742	2 511	2 554	2 358	-7.7%	
Non-ferrous metals	19	12	9	15	15	16	6.7%	
Chemical industry	886	726	265	716	746	842	12.9%	
Non-met. mineral prod.	1 389	1 251	1 348	980	933	1 054	13.0%	
Food, drink, tobacco	168	140	98	105	142	160	12.7%	
Pulp, paper and print	470	484	431	410	402	455	13.2%	
Engineering & metal	-	4	-	1	5	5	0.0%	
Other industries	28	20	10	4	6	8	33.3%	
Services & households etc.	397	383	358	404	315	400	27.0%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	46.0	42.1	35.6	31.0	28.0	27.0	-3.6%	
Number of active hard coal mines (end of year)	15	15	12	11	10	10	0.0%	

## 6.2 Coal derivatives and peat

	DEUTSCHLAND						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	10 279	8 568	9 115	7 265	7 226	7 827	8.3%
Patent Fuel	185	169	146	140	124	114	-8.1%
Lignite and peat	166 035	161 282	167 836	175 509	181 923	179 230	-1.5%
Brown coal briquettes	5 601	5 236	5 238	5 139	4 942	4 843	-2.0%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	89 000p	90 105	88 107	68 136	59 689	51 665	-13.4%
Blast-furnace gas	160 900	162 393	180 770	167 852	168 895	171 651	1.6%
Gasworks gas	360	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	7 999	7 026	8 281	8 168	7 772	7 078	-8.9%
<i>among which:</i>							
Iron & steel industry	6 920	6 000	7 260	7 197	7 079	6 207	-12.3%
Services & households	469	372	344	331	212	101	-52.4%
Patent Fuel	222	146	115	89	105	80	-23.8%
<i>among which:</i>							
Services & households	222	146	115	89	105	80	-23.8%
Lignite and peat	1 057	812	505	376	361	364	0.8%
<i>among which:</i>							
Industry	982	752	445	336	336	334	-0.6%
Services & households	75	60	60	40	25	30	20.0%
Brown coal briquettes	4 456	4 056	3 868	3 621	3 269	3 398	3.9%
<i>among which:</i>							
Industry	2 456	2 414	2 368	2 168	1 976	1 996	1.0%
Services & households	2 000	1 642	1 500	1 453	1 293	1 402	8.4%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	51 000p	50 426	50 696	45 322	17 417	19 762	13.5%
Blast-furnace gas	74 487	77 162	83 221	75 995	74 099	81 904	10.5%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	70 413p	76 479	77 176	76 798	78 995	77 987	-1.3%
Inputs to heat plants	-	1 296	864	786	992	904	-8.9%
Consumption of energy branch	42 000p	32 092	38 122	28 414	36 803	33 290	-9.5%
Consumption in industry	124 487p	127 588	133 917	121 317	91 516	101 666	11.1%


## 7. Renewable energy sources

	DEUTSCHLAND							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	8 360	8 637	9 735	9 933	10 605p	11 582	9.2%	
Hydro (excl. pumping)	1 511	1 689	1 995	1 955	1 988	1 656	-16.7%	
Wind	395	475	804	899	1 363	1 622	18.9%	
Solar	83	78	96	134	151p	241	59.1%	
Geothermal	10	10	10	10	10p	132	1253.8%	
Biomass	6 362	6 384	6 830	6 935	7 093	7 932	11.8%	
<i>among which:</i>								
Wood, wood-waste	4 547	4 472	4 708	4 559	4 556p	5 191	13.9%	
Municipal solid waste	1 339	1 444	1 362	1 433	1 433p	1 258	-12.2%	
Biogas	395	363	557	659	657p	955	45.3%	
Gross inland consumption	8 360	8 637	9 735	9 933	10 605p	11 582	9.2%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	-	-	-	-	-	10		
Biomass	2 014	2 081	2 146	2 125	2 122	2 734	28.8%	
<i>among which:</i>								
Wood, wood-waste	391	390	346	174	173p	645	271.9%	
Municipal waste	1 339	1 444	1 362	1 433	1 433p	1 258	-12.2%	
Biogas	284	247	439	517	516p	831	61.1%	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	4 437	4 388	4 785	4 950	5 109p	5 408	5.9%	
<i>by sector:</i>								
Industry	451	452	453	476	475	-		
Services & households etc.	3 905	3 830	4 128	4 190	4 187p	4 880	16.6%	
Transport	81	106	203	284	447	528	18.2%	
<i>by source:</i>								
Biomass	4 348	4 303	4 684	4 811	4 970	5 074	2.1%	
<i>among which:</i>								
Wood, wood-waste	4 156	4 082	4 362	4 385	4 383p	4 547	3.7%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	111	115	119	141	141p	-		
Geothermal	10	10	10	10	10p	122	1153.1%	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	35	30	60	116	188	333	77.1%	
Hydro with installed capacity < 1 MW	1 849	2 019	1 802	2 208	2 800	3 400	21.4%	
Hydro with installed capacity > 1 & <10 MW	4 428	5 007	6 197	5 426	5 794	4 567	-21.2%	
Hydro with installed capacity > 10 MW	11 295	12 620	16 926	14 517	14 530	11 297	-22.3%	
Wood, Wood-waste	677	823	804	639	543	1 500	176.2%	
Municipal waste	3 235	3 479	3 688	3 717	3 898	4 324	10.9%	
Biogas	763	949	1 683	894	3 247	2 968	-8.6%	

	DEUTSCHLAND						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	54	70	114	195	260	388	49.2%
Hydro with installed capacity < 1 MW	536	534	534	534	555	540	-2.7%
Hydro with installed capacity > 1 & <10 MW	882	870	887	887	887	1 004	13.2%
Hydro with installed capacity > 10 MW	2 025	1 980	3 047	3 410	3 410	2 423	-28.9%
Wood, Wood-waste	795	1 120	1 014	190	285	440	54.4%
Municipal waste	540	555	585	585	585	585	0.0%
Biogas	229	287	345	560	580	599	3.3%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	100	130	250	350	550	650	18.2%
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	2 535	2 418	2 890	4 207	4 754	5 477	15.2%

# 1. Energy economy

## Key figures and energy indicators

		EESTI					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	3 243	2 976	3 168	3 420	3 620	4 140
Net energy imports		2 036	1 884	1 486	1 656	1 475	1 525
Net oil imports		1 229	1 100	626	812	880	850
Net gas imports		592	576	662	710	596	680
Gross inland energy consumption		5 224	4 881	4 572	5 097	4 952	5 456
Final energy consumption		2 609	2 355	2 362	2 517	2 586	2 656
Industry		658	496	528	582	524	587
Transport		576	579	577	650	679	642
Services and households etc.		1 376	1 280	1 256	1 284	1 383	1 427
Gross electricity generation	GWh	8 520	8 267	8 512	8 483	8 526	10 153
Final electricity consumption		5 119	4 763	4 969	5 134	5 272	5 573
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	3 494	3 491	3 764	4 004	4 294	4 515
Population	1000 per.	1 393	1 379	1 372	1 367	1 361	1 356
Industry added value	Mio EUR	919	876	997	1 072	1 230	1 327
Total imports (current prices)	Mio EUR	3 409	3 231	4 144	4 230	4 388	4 870
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	1 495.3	1 398.2	1 214.9	1 272.9	1 153.2	1 208.4
Final energy consumption / GDP(95)		746.8	674.7	627.5	628.6	602.1	588.3
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		715.9	566.1	529.6	543.3	425.6	442.3
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		124.0	130.9	125.0	123.5	132.6	136.5
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 750	3 539	3 332	3 729	3 638	4 024
Final energy consumption / capita		1 873	1 708	1 721	1 841	1 900	1 959
Household consumption / capita		749	695	676	687	701	716
Electricity consumption / capita	kWh/cap.	5 833	5 559	5 523	5 745	5 752	6 080
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	38.2	37.4	31.8	31.9	29.1	27.4
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	49.9	48.3	51.7	49.4	52.2	48.7
Efficiency of thermal power stations		38.5	38.9	40.4	40.3	42.0	42.2

## 2. Energy balance

### Principal aggregates by product

eurostat	EESTI						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	3 243	2 976	3 168	3 420	3 620	4 140	14.4%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	2 731	2 467	2 667	2 618	2 806	3 239	15.4%
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	0	0	0	1	1	1	116.7%
Biomass	511	509	500	550	542	608	12.3%
<b>Imports</b>							
Total	2 224	2 073	1 770	1 950	1 841	1 946	5.7%
<i>among which:</i> Hard coal	51	53	64	54	39	37	-4.9%
Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	1 307	1 164	760	935	1 033	1 007	-2.5%
Natural Gas	592	576	662	710	596	680	14.1%
Electricity	12	12	22	23	35	8	-77.4%
<b>Exports</b>							
Total	188	189	284	294	366	421	14.9%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	78	64	134	122	153	158	3.1%
Natural gas	-	-	-	-	-	-	-
Electricity	45	63	102	77	95	171	80.5%
<b>Gross inland consumption</b>							
Total	5 224	4 881	4 572	5 097	4 952	5 456	10.2%
<i>among which:</i> Solid fuels	3 064	2 826	2 979	2 908	2 837	3 377	19.0%
Crude oil and petrol. prod.	1 094	1 023	510	993	1 055	1 042	-1.3%
Natural gas	592	576	662	710	596	680	14.1%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	507	508	501	539	523	520	-0.5%
<b>Transformation input</b>							
Total	3 294	3 119	3 100	3 142	3 072	3 404	10.8%
<i>among which:</i> Crude oil and feedstocks	1	1	1	1	1	1	0.0%
Petroleum products	307	288	127	107	111	91	-18.3%
Hard coal	11	11	7	3	4	3	-22.5%
Lignite and peat	2 584	2 393	2 431	2 463	2 381	2 795	17.4%
Renewables	90	92	87	104	106	94	-11.0%
<b>Transformation output</b>							
Total	1 569	1 509	1 507	1 530	1 559	1 689	8.3%
<i>among which:</i> Electricity	732	710	731	729	733	872	19.0%
Heat	695	687	635	634	644	611	-5.0%





in 1 000 toe

**EESTI**

**1998**    **1999**    **2000**    **2001**    **2002**    **2003**    **03/02**

**Final energy consumption**

Total	2 609	2 355	2 362	2 517	2 586	2 656	2.7%
<i>among which:</i> Solid fuels	131	100	117	135	89	70	-21.5%
Petroleum products	856	755	748	836	932	919	-1.4%
Natural Gas	154	116	134	169	180	251	39.0%
Renewables	416	415	424	434	416	424	1.9%
Electricity	440	410	427	441	453	479	5.7%

**Final energy consumption by sector**

**Industry**

Total	658	496	528	582	524	587	12.1%
<i>among which:</i> Solid fuels	87	54	79	104	54	43	-20.7%
Petroleum Products	148	104	89	93	83	98	17.9%
Natural Gas	100	63	79	101	91	144	58.8%
Renewables	63	71	79	89	89	63	-29.4%
Electricity	165	157	157	156	162	175	7.9%


**Transport**

Total	576	579	577	650	679	642	-5.4%
<i>among which:</i> Motor spirit	308	296	295	324	322	308	-4.2%
Diesel oil	244	258	255	303	329	307	-6.7%
Jet fuel	13	17	20	16	20	18	-5.3%
Electricity	9	8	8	7	8	8	0.0%


**Services&households**

Total	1 376	1 280	1 256	1 284	1 383	1 427	3.2%
<i>among which:</i> Solid fuels	43	47	37	31	35	27	-22.7%
Gas oil	100	50	55	51	129	168	29.7%
Natural Gas	55	53	55	68	90	107	19.0%
Renewables	353	344	345	346	328	361	10.3%
Electricity	266	244	262	278	283	296	4.6%
Heat	516	513	468	462	469	448	-4.5%


### 3.1 Electricity balance

 eurostat	EESTI						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	8 520	8 267	8 512	8 483	8 526	10 153	19.1%
<i>among which:</i>							
Hydro	4	4	5	7	6	13	116.7%
Wind	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	8 516	8 263	8 507	8 476	8 520	10 140	19.0%
<i>of which:</i>							
Hard coal	-	-	-	-	-	-	-
Lignite and peat	7 958	7 646	7 678	7 656	7 748	9 371	20.9%
Petroleum products	259	297	57	41	29	43	48.3%
Natural gas	287	308	759	768	713	699	-2.0%
Derived gases	-	-	-	-	-	-	-
Biomass	12	12	13	10	30	27	-10.0%
Industrial wastes	-	-	-	1	-	-	-
Total net generation	7 537	7 351	7 590	7 590	7 597	9 095	19.7%
<b>Imports and exports</b>							
Total imports	138	138	258	269	412	93	-77.4%
Total exports	528	734	1 187	891	1 102	1 989	80.5%
<b>Consumption and losses</b>							
Consumption of the energy branch	1 444	1 439	1 375	1 367	1 308	1 498	14.5%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	1 568	1 470	1 240	1 361	1 257	1 192	-5.2%
Final energy consumption	5 119	4 763	4 969	5 134	5 272	5 573	5.7%
<i>of which:</i>							
Industry	1 919	1 828	1 831	1 814	1 883	2 031	7.9%
<i>among which:</i>							
Iron&steel industry	4	4	4	4	4	4	0.0%
Non-ferrous metals	-	-	1	3	3	4	33.3%
Chemical industry	418	406	311	307	282	305	8.2%
Non-met. mineral prod.	171	150	151	166	172	194	12.8%
Food, drink, tobacco	302	263	267	287	292	289	-1.0%
Pulp, paper and print	96	97	104	109	130	127	-2.3%
Engineering & metal	228	179	181	162	196	224	14.3%
Other industries	456	471	503	512	550	612	11.3%
Transport	108	92	91	84	97	97	0.0%
Services & households etc.	3 092	2 843	3 047	3 236	3 292	3 445	4.6%
<i>among which:</i>							
Households	1 349	1 363	1 466	1 585	1 584	1 594	0.6%


## 3.2 Electrical capacity, fuel inputs and heat


 eurostat	EESTI							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	2 624	2 614	2 546	2 224	2 184	2 171	-0.6%
<i>by source:</i>								
Conventional thermal		2 623	2 613	2 545	2 223	2 180	2 165	-0.7%
<i>of which:</i>								
Steam		2 613	2 600	2 538	2 217	2 169	2 152	-0.8%
Gas turbine		-	-	-	-	-	-	-
Combined cycle		-	-	-	-	-	-	-
Internal combustion		8	7	1	6	11	13	18.2%
Nuclear		-	-	-	-	-	-	-
Hydro		1	1	1	1	3	4	33.3%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		-	-	-	-	1	2	100.0%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		2 598	2 589	2 521	2 200	2 160	2 146	-0.6%
Autoproducers		26	25	25	24	24	25	4.2%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	2 519	2 418	2 438	2 452	2 321	2 651	14.2%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		2 333	2 214	2 199	2 205	2 076	2 409	16.0%
Petroleum products		87	102	12	11	10	11	10.0%
Natural gas		74	65	173	172	152	146	-4.5%
Renewables		3	2	2	3	5	5	16.3%
Heating plants		564	556	455	445	493	473	-3.9%
<i>among which:</i>								
Hard coal		11	11	7	3	4	3	-22.5%
Lignite and peat		41	35	25	14	48	108	126.7%
Petroleum products		220	186	115	96	102	81	-20.9%
Natural gas		198	227	203	209	229	190	-16.8%
Renewables		87	90	85	101	101	89	-12.2%
<b>Heat production and consumption</b>								
Total heat production	TJ	695	687	635	634	644	611	-5.0%
<i>among which: in heating plants</i>								
		458	458	382	375	402	365	-9.2%
Heat consumption		567	559	511	502	514	490	-4.8%
<i>of which: in industry</i>								
		51	46	44	40	45	42	-7.1%
<i>in households and services</i>								
		516	513	468	462	469	448	-4.5%
<i>among which: in households</i>								
		454	412	376	397	393	373	-5.1%

## 4.1 Crude oil and feedstocks


 eurostat	in 1 000 t	EESTI						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		-	-	-	-	-	-	-
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Refinery intake		1	1	1	1	1	1	0.0%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	EESTI							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	1	1	1	1	1	1	1	0.0%
<i>among which:</i>								
Motor spirit	-	-	-	-	-	-	-	-
Kerosene and jet fuel	-	-	-	-	-	-	-	-
Naphtha	-	-	-	-	-	-	-	-
Gas/diesel oil	-	-	-	-	-	-	-	-
Residual fuel oil	1	1	1	1	1	1	1	0.0%
Total imports	1 313	1 166	755	922	1 025	993	993	-3.1%
Total exports	82	68	140	128	160	165	165	3.1%
Bunkers	108	168	107	102	120	114	114	-5.0%
Stock changes	-32	80	-12	27	21	11	11	-47.6%
Gross inland consumption	1 091	1 021	498	984	1 051	1 030	1 030	-2.0%
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	-	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-	-
Imports by product								
<i>among which:</i>								
Motor spirit	285	287	188	301	276	280	280	1.4%
Kerosene and jet fuel	18	19	22	14	19	20	20	5.3%
Gas/diesel oil	449	407	342	435	523	564	564	7.8%
Residual fuel oil	444	351	154	125	129	86	86	-33.3%
Exports by product								
<i>among which:</i>								
Motor spirit	-	-	-	-	-	-	-	-
Kerosene and jet fuel	5	1	1	-	-	-	-	-
Gas/diesel oil	-	-	-	-	-	-	-	-
Residual fuel oil	10	10	137	127	160	165	165	3.1%
<b>Consumption</b>								
Inputs to electricity plants	91	107	12	12	10	11	11	10.0%
Inputs to heating plants	230	194	120	100	105	84	84	-20.0%
Non-energy use	46	48	48	44	68	37	37	-45.6%
Final energy consumption	842	740	732	819	915	899	899	-1.7%
Industry								
<i>among which by product:</i>								
Gas/diesel oil	43	30	35	34	32	62	62	93.8%
Residual fuel oil	105	75	54	59	50	24	24	-52.0%

 eurostat	EESTI							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-
Chemical industry	1	1	1	-	1	2	100.0%	
Non-met. mineral prod.	6	4	6	10	4	6	50.0%	
Food, drink, tobacco	68	45	34	32	31	14	-54.8%	
Pulp, paper and print	22	4	2	19	1	10	900.0%	
Engineering & metal	4	5	4	4	3	7	133.3%	
Other industries	46	42	38	24	38	49	28.9%	
<b>Transport</b>	548	554	552	624	651	615	-5.5%	
<i>among which:</i>								
Motor spirit	293	282	281	308	306	293	-4.2%	
Jet fuel	13	17	19	16	19	18	-5.3%	
Diesel oil	242	255	252	300	326	304	-6.7%	
<b>Services &amp; households etc.</b>	142	79	89	100	179	186	3.9%	
<i>among which:</i>								
Gas oil	99	49	54	50	128	166	29.7%	
Residual fuel oil	33	22	27	41	46	13	-71.7%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	-	-	-	-	-	-	-	
Petroleum products	234	154	166	139	115	100	-13.0%	

## 5. Natural gas


 eurostat	EESTI								
	in TJ (GCV)		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		-	-	-	-	-	-	-	-
Total imports		27 560	26 790	30 797	33 050	27 714	31 635	14.1%	
Total exports		-	-	-	-	-	-	-	
Stock changes		-	-	-	-	-	-	-	
Gross inland consumption		27 560	26 790	30 797	33 050	27 714	31 635	14.1%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		-	-	-	-	-	-	-	
Algeria		-	-	-	-	-	-	-	
Norway		-	-	-	-	-	-	-	
<b>Consumption</b>									
Inputs to electricity plants		3 440	3 044	8 061	7 991	7 091	6 770	-4.5%	
Inputs to heat plants		9 209	10 550	9 460	9 745	10 645	8 855	-16.8%	
Consumption of energy branch		24	362	407	373	257	376	46.3%	
Distribution losses		31	-	-	-	-	-	-	
Non-energy use		7 680	7 424	6 598	7 116	1 321	3 965	200.2%	
Industry		4 635	2 945	3 691	4 695	4 212	6 690	58.8%	
<i>among which:</i>									
Iron&steel industry		-	-	4	7	7	10	42.9%	
Non-ferrous metals		1	-	-	4	25	4	-84.0%	
Chemical industry		1 293	15	89	93	56	73	30.4%	
Non-met. mineral prod.		919	768	775	1 153	735	1 902	158.8%	
Food, drink, tobacco		1 169	1 115	1 227	1 336	1 235	1 184	-4.1%	
Pulp, paper and print		304	194	619	624	637	885	38.9%	
Engineering & metal		233	130	135	162	229	483	110.9%	
Other industries		462	488	518	643	743	983	32.3%	
Transport		-	-	-	-	-	-	-	
Services & households etc.		2 541	2 445	2 565	3 148	4 183	4 979	19.0%	
<i>among which:</i>									
Households		2 020	1 930	1 950	1 937	1 714	1 737	1.3%	
Services		299	394	496	1 043	2 280	2 987	31.0%	

## 6.1 Hard coal


 eurostat	EESTI							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	87	88	101	84	60	57	-5.0%	
Total exports	7	2	-	-	-	-	-	
Stock changes	-5	-7	-14	25	1	-13	-	
Gross inland consumption	75	79	87	109	61	44	-27.9%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants	-	-	-	-	-	-	-	-
Inputs to heat plants	18	19	11	6	6	5	-16.7%	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	11	9	39	69	15	11	-26.7%	
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-
Chemical industry	-	-	-	-	-	-	-	-
Non-met. mineral prod.	7	7	37	67	13	8	-38.5%	
Food, drink, tobacco	1	1	1	1	1	1	0.0%	
Pulp, paper and print	-	-	-	-	-	-	-	-
Engineering & metal	1	-	-	-	1	1	0.0%	
Other industries	1	1	1	1	-	-	-	
Services & households etc.	45	50	38	35	39	28	-28.2%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	-




## 6.2 Coal derivatives and peat

	EESTI						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	27	16	23	26	30	30	0.0%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	12 621	11 262	12 073	12 186	13 082	15 254	16.6%
Brown coal briquettes	101	106	86	113	128	120	-6.3%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	3 416	2 238	3 833	4 348	4 642	5 898	27.1%
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	1	1	2	4	1	1	0.0%
<i>among which:</i>							
Iron & steel industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	387	236	234	265	206	175	-15.0%
<i>among which:</i>							
Industry	377	230	229	262	202	172	-14.9%
Services & households	10	6	5	3	4	3	-25.0%
Brown coal briquettes	31	32	29	17	18	18	0.0%
<i>among which:</i>							
Industry	-	-	1	1	-	1	-
Services & households	31	32	28	16	18	17	-5.6%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	2 035	16	-	-	-	1 065	-
Inputs to electricity plants	1 025	1 576	2 432	2 826	3 669	3 785	3.2%
Inputs to heat plants	296	328	875	984	396	90	-77.3%
Consumption of energy branch	-	318	532	538	567	947	67.0%
Consumption in industry	2 035	16	-	-	-	1 065	-


## 7. Renewable energy sources

	EESTI							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	512	509	500	551	543	610	12.4%	
Hydro (excl. pumping)	0	0	0	1	1	1	116.7%	
Wind	-	-	-	-	-	-	-	
Solar	-	-	-	-	-	-	-	
Geothermal	-	-	-	-	-	-	-	
Biomass	511	509	500	550	542	608	12.3%	
<i>among which:</i>								
Wood, wood-waste	510	507	492	548	540	606	12.2%	
Municipal solid waste	-	-	-	-	-	-	-	
Biogas	2	3	2	2	2	3	29.9%	
Gross inland consumption	507	508	501	539	523	520	-0.5%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	-	-	-	-	-	-	-	
Biomass	90	92	87	104	106	94	-11.0%	
<i>among which:</i>								
Wood, wood-waste	88	89	85	102	104	92	-11.8%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	2	3	2	2	2	3	29.9%	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	416	415	424	434	416	424	1.9%	
<i>by sector:</i>								
Industry	63	71	79	89	89	63	-29.4%	
Services & households etc.	353	344	345	346	328	361	10.3%	
Transport	-	-	-	-	-	-	-	
<i>by source:</i>								
Biomass	416	415	424	434	416	424	1.9%	
<i>among which:</i>								
Wood, wood-waste	416	415	424	434	416	424	1.9%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	
Geothermal	-	-	-	-	-	-	-	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	-	-	-	-	-	-	-	
Hydro with installed capacity < 1 MW	:	:	5	7	6	13	116.7%	
Hydro with installed capacity > 1 & <10 MW	:	:	-	-	-	-	-	
Hydro with installed capacity > 10 MW	:	:	-	-	-	-	-	
Wood, Wood-waste	:	:	13	10	23	21	-8.7%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	

	EESTI						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	:	:	2	2	3	4	33.3%
Hydro with installed capacity > 1 & <10 MW	:	:	-	-	-	-	-
Hydro with installed capacity > 10 MW	:	:	-	-	-	-	-
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-

# 1. Energy economy

## Key figures and energy indicators

		ELLADA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	10 038	9 463	9 946	9 942	10 541	9 893
Net energy imports		21 106	19 744	21 982	22 322	23 199	22 472
Net oil imports		19 429	17 782	19 527	19 581	20 569	19 869
Net gas imports		690	1 216	1 689	1 670	1 755	2 002
Gross inland energy consumption		26 875	26 759	28 076	28 937	29 721	30 160
Final energy consumption		18 159	18 157	18 508	19 112	19 497	20 456
Industry		4 421	4 154	4 432	4 496	4 458	4 304
Transport		7 292	7 453	7 196	7 363	7 460	7 800
Services and households etc.		6 446	6 549	6 880	7 253	7 579	8 352
Gross electricity generation	GWh	46 332	49 860	53 843	53 704	54 608	58 478
Final electricity consumption		39 315	40 879	43 151	44 535	46 564	48 595
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	98 563	101 933	106 497	111 027	115 210	120 581
Population	1000 per.	10 808	10 861	10 904	10 931	10 969	11 006
Industry added value	Mio EUR	20 141	20 598	21 715	23 116	23 628	24 981
Total imports (current prices)	Mio EUR	29 917	34 416	37 475	36 214	34 506	37 258
among which:							
All energy commodities		1 986	1 579	4 398	5 005	4 590	5 458
Oil products		1 837	1 434	4 102	4 618	4 220	5 013
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	272.7	262.5	263.6	260.6	258.0	250.1
Final energy consumption / GDP(95)		184.2	178.1	173.8	172.1	169.2	169.6
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		219.5	201.7	204.1	194.5	188.7	172.3
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		19.1	19.7	19.5	20.8	21.0	21.5
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 487	2 464	2 575	2 647	2 710	2 740
Final energy consumption / capita		1 680	1 672	1 697	1 748	1 777	1 859
Household consumption / capita		387	389	410	428	447	495
Electricity consumption / capita	kWh/cap.	4 071	4 125	4 519	4 823	4 867	4 926
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	69.6	66.1	69.5	68.9	70.7	67.4
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	67.6	67.9	65.9	66.0	65.6	67.8
Efficiency of thermal power stations		35.4	38.7	36.8	37.4	35.9	37.9

## 2. Energy balance

### Principal aggregates by product

eurostat	ELLADA						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	10 038	9 463	9 946	9 942	10 541	9 893	-6.1%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	8 353	8 003	8 222	8 392	8 914	8 176	-8.3%
Crude oil	316	16	280	191	189	137	-27.6%
Natural Gas	40	3	42	40	42	31	-26.9%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	320	416	318	180	241	410	70.2%
Biomass	908	913	946	970	996	945	-5.1%
<b>Imports</b>							
Total	24 443	23 690	26 249	26 334	27 568	28 654	3.9%
<i>among which:</i> Hard coal	893	782	809	885	644	485	-24.6%
Crude oil and feedstocks	19 280	17 347	20 439	20 132	20 645	21 111	2.3%
Petroleum products	3 363	4 188	3 164	3 337	4 127	4 694	13.7%
Natural Gas	690	1 216	1 689	1 670	1 755	2 002	14.1%
Electricity	215	156	149	306	396	358	-9.4%
<b>Exports</b>							
Total	3 337	3 945	4 267	4 012	4 369	6 182	41.5%
<i>among which:</i> Crude oil and feedstocks	-	116	-	-	387	1 104	185.1%
Petroleum products	3 214	3 636	4 077	3 889	3 815	4 832	26.7%
Natural gas	-	-	-	-	-	-	-
Electricity	77	142	150	91	147	179	21.7%
<b>Gross inland consumption</b>							
Total	26 875	26 759	28 076	28 937	29 721	30 160	1.5%
<i>among which:</i> Solid fuels	9 156	8 524	9 040	9 308	9 321	8 906	-4.5%
Crude oil and petrol. prod.	15 527	15 562	15 929	16 413	16 954	17 499	3.2%
Natural gas	725	1 218	1 705	1 683	1 801	2 026	12.5%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	1 329	1 442	1 403	1 318	1 396	1 549	11.0%
<b>Transformation input</b>							
Total	31 562	29 078	34 039	33 316	33 700	34 197	1.5%
<i>among which:</i> Crude oil and feedstocks	21 221	19 063	22 404	21 666	21 477	22 266	3.7%
Petroleum products	1 918	1 877	2 036	1 868	1 937	1 958	1.1%
Hard coal	11	3	4	1	6	25	290.1%
Lignite and peat	8 040	7 248	8 252	8 476	8 880	8 427	-5.1%
Renewables	-	2	0	31	47	31	-33.9%
<b>Transformation output</b>							
Total	24 811	22 877	26 632	25 951	25 815	26 731	3.6%
<i>among which:</i> Electricity	3 645	3 838	4 237	4 318	4 342	4 482	3.2%
Heat	-	26	28	28	28	24	-12.1%

**Final energy consumption**

Total	18 159	18 157	18 508	19 112	19 497	20 456	4.9%
<i>among which:</i> Solid fuels	964	770	888	903	746	603	-19.2%
Petroleum products	12 669	12 634	12 584	12 992	13 321	14 245	6.9%
Natural Gas	142	201	252	317	345	385	11.6%
Renewables	908	911	946	939	949	915	-3.7%
Electricity	3 380	3 515	3 710	3 829	4 004	4 178	4.4%

**Final energy consumption by sector**
**Industry**

Total	4 421	4 154	4 432	4 496	4 458	4 304	-3.4%
<i>among which:</i> Solid fuels	917	734	852	870	721	597	-17.2%
Petroleum Products	2 060	1 913	1 935	1 913	1 966	1 960	-0.3%
Natural Gas	129	190	239	294	309	328	6.3%
Renewables	205	208	241	236	246	202	-17.9%
Electricity	1 110	1 109	1 165	1 183	1 215	1 217	0.2%


**Transport**

Total	7 292	7 453	7 196	7 363	7 460	7 800	4.6%
<i>among which:</i> Motor spirit	3 264	3 326	3 394	3 506	3 671	3 836	4.5%
Diesel oil	2 268	2 240	2 216	2 304	2 319	2 466	6.4%
Jet fuel	1 201	1 284	1 325	1 191	1 154	1 162	0.6%
Electricity	15	17	20	18	19	20	6.8%


**Services&households**

Total	6 446	6 549	6 880	7 253	7 579	8 352	10.2%
<i>among which:</i> Solid fuels	48	36	35	33	25	6	-77.3%
Gas oil	3 116	3 087	3 287	3 546	3 756	4 355	15.9%
Natural Gas	13	11	13	17	27	46	73.5%
Renewables	703	702	705	703	704	713	1.3%
Electricity	2 255	2 389	2 526	2 628	2 770	2 941	6.2%
Heat	-	26	28	28	28	24	-12.1%

### 3.1 Electricity balance


 eurostat	ELLADA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	46 332	49 860	53 843	53 704	54 608	58 478	7.1%
<i>among which:</i>							
Hydro	3 866	5 058	4 111	2 725	3 463	5 332	54.0%
Wind	73	162	451	756	651	1 021	56.8%
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	42 393	44 640	49 281	50 223	50 494	52 125	3.2%
<i>of which:</i>							
Hard coal	45	12	14	6	20	78	290.0%
Lignite and peat	32 397	32 369	34 299	35 425	34 546	35 091	1.6%
Petroleum products	8 078	8 157	8 885	8 477	8 633	8 722	1.0%
Natural gas	1 713	3 907	5 920	6 133	7 061	7 988	13.1%
Derived gases	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-
Industrial wastes	160	195	163	182	234	246	5.1%
Total net generation	42 757	46 021	49 863	49 730	50 608	54 344	7.4%
<b>Imports and exports</b>							
Total imports	2 500	1 811	1 729	3 562	4 602	4 169	-9.4%
Total exports	890	1 647	1 740	1 062	1 706	2 076	21.7%
<b>Consumption and losses</b>							
Consumption of the energy branch	5 305	5 596	5 990	6 090	6 263	6 451	3.0%
<i>of which:</i>							
Consumption for pumped-storage	63	101	179	269	283	241	-14.8%
Network losses	3 173	3 334	4 273	4 951	4 014	4 959	23.5%
Final energy consumption	39 315	40 879	43 151	44 535	46 564	48 595	4.4%
<i>of which:</i>							
Industry	12 908	12 900	13 547	13 762	14 130	14 153	0.2%
<i>among which:</i>							
Iron&steel industry	868	821	975	1 101	1 416	1 550	9.5%
Non-ferrous metals	3 446	3 520	3 861	3 898	3 929	3 757	-4.4%
Chemical industry	1 246	1 221	1 212	1 094	1 154	627	-45.7%
Non-met. mineral prod.	2 016	1 979	2 068	2 063	2 049	2 075	1.3%
Food, drink, tobacco	1 041	1 107	1 210	1 231	1 285	1 876	46.0%
Pulp, paper and print	444	475	512	491	473	576	21.8%
Engineering & metal	713	754	790	785	808	1 052	30.2%
Other industries	1 877	1 791	1 647	1 833	1 775	1 550	-12.7%
Transport	180	197	227	214	222	237	6.8%
Services & households etc.	26 227	27 782	29 377	30 559	32 212	34 205	6.2%
<i>among which:</i>							
Households	12 786	13 484	14 207	14 546	15 775	16 444	4.2%

## 3.2 Electrical capacity, fuel inputs and heat


	ELLADA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	10 016	10 905	10 903	10 969	11 553	12 057	4.4%
<i>by source:</i>								
Conventional thermal		7 120	7 692	7 605	7 623	8 188	8 607	5.1%
<i>of which:</i>								
Steam		6 006	5 965	5 806	5 826	5 826	6 123	5.1%
Gas turbine		370	370	323	375	434	466	7.4%
Combined cycle		373	922	918	916	1 391	1 386	-0.4%
Internal combustion		371	435	558	506	537	632	17.7%
Nuclear		-	-	-	-	-	-	-
Hydro		2 856	3 102	3 072	3 076	3 078	3 079	0.0%
<i>among which:</i>								
Pumped storage		615	615	699	699	699	699	0.0%
Wind		38	109	226	270	287	371	29.3%
Geothermal		2	2	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		9 784	10 623	10 690	10 772	11 356	11 842	4.3%
Autoproducers		233	282	213	218	218	237	8.7%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	10 308	9 998	11 604	11 616	12 179	11 878	-2.5%
<i>among which:</i>								
Hard coal		11	3	4	1	6	25	290.1%
Lignite and peat		8 022	7 231	8 222	8 442	8 836	8 374	-5.2%
Petroleum products		1 905	1 877	2 036	1 868	1 937	1 958	1.1%
Natural gas		352	867	1 334	1 265	1 348	1 484	10.1%
Renewables		-	2	0	31	47	31	-33.9%
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	-	26	28	28	28	24	-12.1%
<i>among which: in heating plants</i>								
		-	-	-	-	-	-	-
Heat consumption		-	26	28	28	28	24	-12.1%
<i>of which: in industry</i>								
		-	-	-	-	-	-	-
		-	26	28	28	28	24	-12.1%
<i>among which: in households</i>								
		-	26	28	28	28	24	-12.1%




## 4.1 Crude oil and feedstocks


 eurostat	ELLADA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		315	16	279	191	189	137	-27.5%
Total imports		19 206	17 287	20 383	20 081	20 605	21 102	2.4%
Total exports		-	116	-	-	387	1 105	185.5%
Stock changes		-290	187	-104	-150	-311	436	240.2%
Refinery intake		21 118	18 979	22 320	21 595	21 416	22 230	3.8%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		17 436	14 970	15 122	13 164	9 686	11 693	20.7%
Near and Middle East		16 140	13 787	13 866	11 953	8 748	10 681	22.1%
Africa		1 376	1 322	1 256	1 211	1 234	1 371	11.1%
<i>by country of origin:</i>								
Algeria		-	-	65	-	-	-	-
Nigeria		-	-	-	-	-	23	-
Saudi Arabia		7 045	5 347	5 821	5 268	5 128	6 184	20.6%
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	19 290	20 140	20 440	:	:	:	
<i>among which:</i>								
Cracking and others		8 560	9 870	9 890	:	:	:	
Reforming		2 220	2 330	2 360	:	:	:	

## 4.2 Petroleum products


 eurostat	ELLADA							
	in 1 000 t							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Production and supply</b>								
Total refinery output	21 026	18 894	22 231	21 483	21 319	22 113	3.7%	
<i>among which:</i>								
Motor spirit	3 671	3 205	3 758	3 770	3 802	3 653	-3.9%	
Kerosene and jet fuel	1 995	1 908	2 116	1 803	1 731	1 649	-4.7%	
Naphtha	932	880	1 036	881	795	1 037	30.4%	
Gas/diesel oil	5 544	4 866	5 647	5 452	5 624	6 053	7.6%	
Residual fuel oil	6 959	6 326	7 510	7 361	7 188	7 456	3.7%	
Total imports	3 389	4 208	3 255	3 397	4 200	4 751	13.1%	
Total exports	3 120	3 540	3 944	3 779	3 723	4 728	27.0%	
Bunkers	3 582	3 190	3 686	3 584	3 222	3 297	2.3%	
Stock changes	-421	665	-242	263	-505	137	127.1%	
Gross inland consumption	-3 734	-1 857	-4 617	-3 703	-3 110	-3 050	1.9%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	15	109	196	19	136	89	-34.6%	
United Kingdom	76	73	17	28	59	31	-47.5%	
Norway	-	-	-	-	-	-	-	
OPEC	-	761	491	464	358	523	46.1%	
Imports by product								
<i>among which:</i>								
Motor spirit	152	477	415	116	514	749	45.7%	
Kerosene and jet fuel	62	306	97	261	31	295	851.6%	
Gas/diesel oil	2 539	2 738	2 013	2 435	2 993	3 003	0.3%	
Residual fuel oil	411	298	174	169	36	184	411.1%	
Exports by product								
<i>among which:</i>								
Motor spirit	645	653	1 011	678	809	942	16.4%	
Kerosene and jet fuel	829	930	755	965	523	869	66.2%	
Gas/diesel oil	284	586	576	794	891	1 102	23.7%	
Residual fuel oil	196	280	220	255	564	649	15.1%	
<b>Consumption</b>								
Inputs to electricity plants	1 955	1 945	2 109	1 934	2 001	2 021	1.0%	
Inputs to heating plants	-	-	-	-	-	-	-	
Non-energy use	443	451	640	685	737	739	0.3%	
Final energy consumption	12 510	12 480	12 407	12 824	13 165	14 070	6.9%	
Industry								
<i>among which by product:</i>								
Gas/diesel oil	525	560	504	500	500	550	10.0%	
Residual fuel oil	928	769	882	830	847	778	-8.1%	

 eurostat	ELLADA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	46	49	51	52	53	54	1.9%	
Non-ferrous metals	249	325	272	272	277	279	0.7%	
Chemical industry	242	149	155	146	139	133	-4.3%	
Non-met. mineral prod.	428	412	465	506	570	569	-0.2%	
Food, drink, tobacco	310	264	290	272	270	291	7.8%	
Pulp, paper and print	93	98	113	98	97	98	1.0%	
Engineering & metal	32	33	35	34	34	30	-11.8%	
Other industries	529	471	424	432	442	460	4.1%	
<b>Transport</b>	7 085	7 243	6 964	7 127	7 210	7 540	4.6%	
<i>among which:</i>								
Motor spirit	3 106	3 165	3 230	3 336	3 493	3 650	4.5%	
Jet fuel	1 169	1 250	1 290	1 160	1 124	1 131	0.6%	
Diesel oil	2 245	2 217	2 193	2 280	2 295	2 441	6.4%	
<b>Services &amp; households etc.</b>	3 287	3 242	3 428	3 694	3 878	4 464	15.1%	
<i>among which:</i>								
Gas oil	3 084	3 055	3 253	3 510	3 718	4 311	15.9%	
Residual fuel oil	28	28	28	34	35	36	2.9%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	1 618	1 431	1 535	1 685	1 996	1 560	-21.8%	
Petroleum products	2 707	2 042	2 284	2 021	2 526	2 389	-5.4%	


## 5. Natural gas

 eurostat	ELLADA							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		1 874	117	1 968	1 870	1 973	1 442	-26.9%
Total imports		32 111	56 575	78 551	77 680	81 622	93 138	14.1%
Total exports		-	-	-	-	-	-	-
Stock changes		-238	-32	-1 224	-1 255	192	-319	-266.1%
Gross inland consumption		33 747	56 660	79 295	78 295	83 787	94 261	12.5%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		32 111	56 575	58 257	57 470	61 255	70 610	15.3%
Algeria		-	-	20 294	20 210	20 367	22 528	10.6%
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		16 398	40 311	62 035	58 848	62 699	69 017	10.1%
Inputs to heat plants		-	-	-	-	-	-	-
Consumption of energy branch		1 328	59	1 552	1 461	1 624	1 479	-8.9%
Distribution losses		40	36	40	466	27	64	137.0%
Non-energy use		9 367	6 951	3 923	2 754	3 369	5 750	70.7%
Industry		5 996	8 842	11 100	13 672	14 376	15 281	6.3%
<i>among which:</i>								
Iron&steel industry		1 326	2 302	2 572	2 956	3 069	2 751	-10.4%
Non-ferrous metals		260	1 215	1 830	1 651	1 858	2 407	29.5%
Chemical industry		147	372	347	405	778	1 001	28.7%
Non-met. mineral prod.		1 217	1 319	1 820	2 997	3 145	2 773	-11.8%
Food, drink, tobacco		1 811	2 475	2 925	2 441	2 520	3 191	26.6%
Pulp, paper and print		423	297	561	891	1 151	1 289	12.0%
Engineering & metal		74	62	46	162	55	66	20.0%
Other industries		5	-	-	792	547	404	-26.1%
Transport		-	-	-	284	449	495	10.2%
Services & households etc.		618	526	626	810	1 243	2 157	73.5%
<i>among which:</i>								
Households		-	181	226	243	398	870	118.6%
Services		618	345	400	567	845	1 287	52.3%


## 6.1 Hard coal


 eurostat	ELLADA						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 t</i>							
<b>Primary production and supply</b>							
Primary production	-	-	-	-	-	-	-
Total imports	1 373	1 203	1 245	1 363	991	747	-24.6%
Total exports	70	75	59	49	8	60	650.0%
Stock changes	-25	-96	-65	-86	-19	146	868.4%
Gross inland consumption	1 278	1 032	1 121	1 228	964	833	-13.6%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
USA	31	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-
CIS	31	231	364	669	400	244	-39.0%
Australia	-	-	110	141	-	-	-
South Africa	936	462	447	40	305	-	-
Colombia	-	-	-	-	-	-	-
<b>Consumption</b>							
Inputs to electricity plants	17	5	6	2	10	39	290.0%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Industry	1 256	1 027	1 115	1 226	952	791	-16.9%
<i>among which:</i>							
Iron&steel industry	-	-	-	-	-	-	-
Non-ferrous metals	77	64	69	141	160	160	0.0%
Chemical industry	-	-	-	-	-	-	-
Non-met. mineral prod.	1 179	963	1 046	1 085	792	631	-20.3%
Food, drink, tobacco	-	-	-	-	-	-	-
Pulp, paper and print	-	-	-	-	-	-	-
Engineering & metal	-	-	-	-	-	-	-
Other industries	-	-	-	-	-	-	-
Services & households etc.	5	-	-	-	2	3	50.0%
<b>Structural data</b>							
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-

## 6.2 Coal derivates and peat

	ELLADA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	60 884	62 051	63 887	66 344	70 468	68 299	-3.1%
Brown coal briquettes	77	73	141	138	179	209	16.8%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	3	1	-	4	3	4	33.3%
<i>among which:</i>							
Iron & steel industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	464	310	464	250	262	195	-25.6%
<i>among which:</i>							
Industry	362	235	381	172	262	195	-25.6%
Services & households	102	75	83	78	-	-	-
Brown coal briquettes	35	34	117	116	169	117	-30.8%
<i>among which:</i>							
Industry	-	-	79	80	105	107	1.9%
Services & households	35	34	38	36	64	10	-84.4%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-

## 7. Renewable energy sources


	ELLADA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	1 329	1 442	1 403	1 318	1 396	1 549	11.0%	
Hydro (excl. pumping)	320	416	318	180	241	410	70.2%	
Wind	6	14	39	65	56	88	56.8%	
Solar	93	97	99	100	102	105	2.9%	
Geothermal	3	2	2	2	1	1	-14.3%	
Biomass	908	913	946	970	996	945	-5.1%	
<i>among which:</i>								
Wood, wood-waste	907	911	945	938	948	909	-4.0%	
Municipal solid waste	-	-	-	-	-	-	-	
Biogas	1	1	1	33	48	36	-25.7%	
Gross inland consumption	1 329	1 442	1 403	1 318	1 396	1 549	11.0%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	-	-	-	-	-	-	-	
Biomass	-	2	0	31	47	31	-33.9%	
<i>among which:</i>								
Wood, wood-waste	-	1	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	1	0	31	47	31	-33.9%	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	1 003	1 010	1 046	1 042	1 053	1 021	-3.0%	
<i>by sector:</i>								
Industry	205	208	241	236	246	202	-17.8%	
Services & households etc.	799	801	805	806	806	818	1.5%	
Transport	-	-	-	-	-	-	-	
<i>by source:</i>								
Biomass	908	911	946	939	949	915	-3.7%	
<i>among which:</i>								
Wood, wood-waste	907	911	945	938	948	909	-4.0%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	1	0	1	2	2	5	171.6%	
Geothermal	3	2	2	2	1	1	-14.3%	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	-	-	-	-	-	-	-	
Hydro with installed capacity < 1 MW	8	18	26	40	58	76	31.0%	
Hydro with installed capacity > 1 & <10 MW	137	164	140	95	92	169	83.7%	
Hydro with installed capacity > 10 MW	3 582	4 446	3 527	1 962	2 650	4 521	70.6%	
Wood, Wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	2	1	79	126	105	-16.7%	

	ELLADA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	1	1	1	0.0%
Hydro with installed capacity < 1 MW	4	7	14	15	17	19	11.8%
Hydro with installed capacity > 1 & <10 MW	40	42	42	45	45	50	11.1%
Hydro with installed capacity > 10 MW	2 321	2 437	2 317	2 317	2 317	2 311	-0.3%
Wood, Wood-waste	48	48	35	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	1	22	22	22	0.0%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	2 381	2 440	2 941	2 992	3 050	3 140	3.0%




# 1. Energy economy

## Key figures and energy indicators

		ESPAÑA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	31 289	30 305	31 245	32 860	31 771	32 863
Net energy imports		87 554	94 427	98 351	98 763	107 041	107 759
Net oil imports		66 409	68 150	69 866	71 552	73 275	73 704
Net gas imports		12 058	13 903	15 467	15 827	18 929	21 168
Gross inland energy consumption		111 099	117 567	122 754	126 188	130 063	134 055
Final energy consumption		71 750	74 378	79 411p	83 221p	85 379p	89 730p
Industry		22 541	22 451	25 474p	27 163p	28 074p	29 291p
Transport		30 458	31 890	32 848	34 168	34 882p	36 720p
Services and households etc.		18 750	20 037	21 090	21 891	22 422p	23 719p
Gross electricity generation	GWh	195 065	209 030	225 148	237 991	246 079	262 860
Final electricity consumption		165 969	177 252	188 459	200 953	206 535	219 988
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	496 897	517 885	540 694	559 859	574 864	591 616
Population	1000 per.	39 571	39 724	39 961	40 376	40 851	41 551
Industry added value	Mio EUR	142 131	149 285	155 983	162 512	166 405	169 992
Total imports (current prices)	Mio EUR	141 092	158 822	175 570	182 861	189 735	201 525
among which:							
All energy commodities		7 772	8 953	20 377	19 306	18 905	19 113
Oil products		5 802	7 000	16 184	14 669	14 164	14 583
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	223.6	227.0	227.0	225.4	226.2	226.6
Final energy consumption / GDP(95)		144.4	143.6	146.9	148.6	148.5	151.7
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		158.6	150.4	163.3	167.1	168.7	172.3
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		18.6	19.0	20.0	20.4	20.5	19.6
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 808	2 960	3 072	3 125	3 184	3 226
Final energy consumption / capita		1 813	1 872	1 987	2 061	2 090	2 160
Household consumption / capita		280	296	297	309	313	330
Electricity consumption / capita	kWh/cap.	4 077	4 697	4 831	4 721	5 295	5 010
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	74.8	76.5	76.4	74.4	78.2	76.4
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	64.6	63.3	64.7	65.9	65.6	66.9
Efficiency of thermal power stations		41.1	40.2	41.3	42.5	42.3	43.0

## 2. Energy balance

### Principal aggregates by product

 eurostat	ESPANA						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	31 289	30 305	31 245	32 860	31 771	32 863	3.4%
<i>among which:</i> Hard coal	7 659	7 005	6 544	6 148	5 756	5 368	-6.7%
Lignite and peat	1 642	1 561	1 197	1 210	1 693	1 607	-5.1%
Crude oil	525	297	225	336	315	319	1.3%
Natural Gas	102	131	148	471	467	197	-57.9%
Nuclear heat	14 418	15 181	16 046	16 434	16 255	15 961	-1.8%
Hydro-electricity	2 924	1 966	2 534	3 527	1 981	3 530	78.2%
Biomass	3 806	3 894	4 105	4 091	4 505	4 788	6.3%
<b>Imports</b>							
Total	97 000	102 084	106 789	105 996	114 084	115 784	1.5%
<i>among which:</i> Hard coal	9 038	12 061	13 049	11 412	14 665	13 140	-10.4%
Crude oil and feedstocks	60 188	58 562	58 393	57 486	57 457	57 423	-0.1%
Petroleum products	14 882	16 448	18 731	20 298	21 815	23 086	5.8%
Natural Gas	12 058	13 903	15 467	15 827	18 929	21 168	11.8%
Electricity	771	1 028	1 055	875	1 075	819	-23.9%
<b>Exports</b>							
Total	9 446	7 657	8 438	7 233	7 043	8 025	13.9%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	8 661	6 860	7 258	6 232	5 998	6 805	13.5%
Natural gas	-	-	-	-	-	-	-
Electricity	478	537	673	578	617	710	15.1%
<b>Gross inland consumption</b>							
Total	111 099	117 567	122 754	126 188	130 063	134 055	3.1%
<i>among which:</i> Solid fuels	17 775	20 092	20 643	18 456	21 686	20 164	-7.0%
Crude oil and petrol. prod.	59 905	62 225	63 223	66 184	65 628	67 056	2.2%
Natural gas	11 609	13 289	15 219	16 400	18 751	21 353	13.9%
Nuclear Energy	14 418	15 181	16 046	16 434	16 255	15 961	-1.8%
Renewables	6 943	6 130	7 085	8 262	7 284	9 412	29.2%
<b>Transformation input</b>							
Total	100 502	105 487	105 645	102 040	107 600p	105 813p	-1.7%
<i>among which:</i> Crude oil and feedstocks	61 823	60 968	60 048	58 020	58 264	57 633	-1.1%
Petroleum products	3 426	5 145	4 602	5 096	5 701p	5 453p	-4.3%
Hard coal	15 648	18 314	19 210	16 504	19 523	18 148	-7.0%
Lignite and peat	1 745	1 510	1 451	1 503	1 544	1 391	-9.9%
Renewables	429	501	679	714	967	1 166	20.5%
<b>Transformation output</b>							
Total	77 652	78 590	78 428p	76 416p	78 646p	77 502p	-1.5%
<i>among which:</i> Electricity	13 579	15 552	16 218	16 093	18 142	17 789	-1.9%
Heat	69	74	74p	0p	0p	0p	

**Final energy consumption**

Total	71 750	74 378	79 411p	83 221p	85 379p	89 730p	5.1%
<i>among which:</i> Solid fuels	1 814	1 697	1 671	1 797	1 801	1 833	1.8%
Petroleum products	42 963	43 852	45 773	47 231	48 146p	49 627p	3.1%
Natural Gas	8 703	9 740	11 809	13 009	13 697	15 322	11.9%
Renewables	3 377	3 394	3 427	3 374	3 534	3 619	2.4%
Electricity	14 271	15 241	16 205	17 279	17 759	18 916	6.5%

**Final energy consumption by sector**
**Industry**

Total	22 541	22 451	25 474p	27 163p	28 074p	29 291p	4.3%
<i>among which:</i> Solid fuels	1 609	1 546	1 607	1 741	1 734	1 751	1.0%
Petroleum Products	6 112	5 170	5 647	5 887	6 323p	5 787p	-8.5%
Natural Gas	6 742	7 368	9 151	10 004	10 349	11 626	12.3%
Renewables	1 385	1 401	1 302	1 314	1 319	1 343	1.8%
Electricity	6 141	6 574	7 364	7 762	7 987	8 456	5.9%


**Transport**

Total	30 458	31 890	32 848	34 168	34 882p	36 720p	5.3%
<i>among which:</i> Motor spirit	9 477	9 393	8 969	8 924	8 638p	8 461	-2.0%
Diesel oil	16 382	17 681	18 676	20 039	21 051p	22 773p	8.2%
Jet fuel	3 962	4 198	4 486	4 526	4 294p	4 506p	4.9%
Electricity	322	307	358	392	412	441	6.9%


**Services&households**

Total	18 750	20 037	21 090	21 891	22 422p	23 719p	5.8%
<i>among which:</i> Solid fuels	205	151	64	55	67	82	21.6%
Gas oil	4 057	4 349	5 099	5 139	5 039p	5 449p	8.1%
Natural Gas	1 956	2 362	2 658	3 005	3 347	3 696	10.4%
Renewables	1 991	1 992	2 059	2 060	2 064	2 067	0.2%
Electricity	7 807	8 361	8 483	9 125	9 360	10 019	7.0%
Heat	-	-	-	-	-	-	-


### 3.1 Electricity balance

 eurostat	ESPANA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	195 065	209 030	225 148	237 991	246 079	262 860	6.8%
<i>among which:</i>							
Hydro	35 806	25 437	31 807	43 858	26 388	43 897	66.4%
Wind	1 352	2 744	4 724	6 966	8 704	12 075	38.7%
Geothermal	-	-	-	-	-	-	-
Nuclear	58 993	58 852	62 206	63 708	63 016	61 875	-1.8%
Conventional thermal	98 914	121 997	126 411	123 459	147 971	145 013	-2.0%
<i>of which:</i>							
Hard coal	55 207	66 788	72 886	64 006	74 627	68 817	-7.8%
Lignite and peat	6 378	6 821	6 210	6 419	6 555	5 905	-9.9%
Petroleum products	17 499	24 445	22 640	24 596	28 593	24 002	-16.1%
Natural gas	16 212	19 058	21 074	23 272	32 386	39 368	21.6%
Derived gases	1 581	1 761	1 386	1 392	1 275	1 233	-3.3%
Biomass	1 641	1 774	1 824	1 964	2 970	5 648	90.2%
Industrial wastes	396	1 350	391	1 810	1 565	40	-97.4%
Total net generation	187 159	199 217	215 216	228 186	235 345	252 299	7.2%
<b>Imports and exports</b>							
Total imports	8 964	11 959	12 268	10 177	12 504	9 520	-23.9%
Total exports	5 562	6 240	7 827	6 727	7 175	8 257	15.1%
<b>Consumption and losses</b>							
Consumption of the energy branch	13 178	15 316	18 752	17 443	20 696	18 764	-9.3%
<i>of which:</i>							
Consumption for pumped-storage	772	1 103	2 570	1 294	3 606	1 835	-49.1%
Network losses	18 330	19 624	20 041	20 208	20 827	22 527	8.2%
Final energy consumption	165 969	177 252	188 459	200 953	206 535	219 988	6.5%
<i>of which:</i>							
Industry	71 423	76 452	85 640	90 267	92 890	98 345	5.9%
<i>among which:</i>							
Iron&steel industry	12 170	13 265	14 732	15 921	16 228	17 157	5.7%
Non-ferrous metals	8 800	9 001	9 291	10 226	10 484	10 884	3.8%
Chemical industry	10 200	10 679	12 800	12 368	12 111	12 646	4.4%
Non-met. mineral prod.	7 703	8 793	9 613	10 939	11 026	12 059	9.4%
Food, drink, tobacco	7 100	7 653	8 973	8 641	9 183	10 051	9.5%
Pulp, paper and print	5 300	5 479	3 769	6 676	6 898	7 307	5.9%
Engineering & metal	8 300	8 634	9 668	10 167	10 489	10 940	4.3%
Other industries	6 700	7 416	11 295	9 209	10 114	11 332	12.0%
Transport	3 750	3 566	4 163	4 558	4 794	5 124	6.9%
Services & households etc.	90 796	97 234	98 656	106 128	108 851	116 519	7.0%
<i>among which:</i>							
Households	41 700	45 443	43 619	49 685	50 636	54 235	7.1%


## 3.2 Electrical capacity, fuel inputs and heat


	ESPANA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	50 009	51 354	53 980	55 695	60 195	68 879	14.4%
<i>by source:</i>								
Conventional thermal		25 243	25 644	26 243	26 915	29 941	37 310	24.6%
<i>of which:</i>								
Steam		20 589	20 603	21 098	21 770	21 343	22 000p	3.1%
Gas turbine		1 419	1 419	1 535	1 535	1 755	1 800p	2.6%
Combined cycle		1 530	1 530	1 181	1 181	4 109	10 010p	143.6%
Internal combustion		1 705	2 092	2 429	2 429	2 734	3 500p	28.0%
Nuclear		7 300	7 354	7 503	7 519	7 577	7 581	0.1%
Hydro		16 632	16 897	17 960	18 017	17 879	18 043	0.9%
<i>among which:</i>								
Pumped storage		5 095	5 095	5 288	5 288	2 518	2 518	0.0%
Wind		834	1 459	2 274	3 244	4 798	5 945	23.9%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		45 654	47 738	48 801	50 411	54 271	62 425	15.0%
Autoproducers		4 363	4 684	4 740	5 109	5 924	6 481	9.4%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	20 877	26 298	26 520	24 979	30 052p	29 011p	-3.5%
<i>among which:</i>								
Hard coal		12 910	15 896	16 798	14 436	17 007	15 444	-9.2%
Lignite and peat		1 745	1 510	1 451	1 503	1 544	1 391	-9.9%
Petroleum products		3 280	4 981	4 442	5 074	5 679p	5 368p	-5.5%
Natural gas		2 117	2 963	2 685	2 810	4 501	5 327	18.3%
Renewables		429	501	679	714	967	1 166	20.5%
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	69	74	74p	0p	0p	0p	
<i>among which: in heating plants</i>								
		-	-	-	-	-	-	-
Heat consumption		69	74	74p	0p	0p	0p	
<i>of which: in industry</i>								
		69	74	74p	0p	0p	0p	
<i>in households and services</i>								
		-	-	-	-	-	-	-
<i>among which: in households</i>								
		-	-	-	-	-	-	-

## 4.1 Crude oil and feedstocks

 eurostat	in 1 000 t	ESPANA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		529	299	227	338	316	322	1.9%
Total imports		60 679	58 911	58 782	57 833	57 694	57 998	0.5%
Total exports		-	-	-	-	-	-	-
Stock changes		-392	529	-791	224	-374	-611	-63.4%
Refinery intake		62 291	61 297	60 404	58 349	58 489	58 203	-0.5%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		37 654	34 011	35 607	22 400	29 634	29 181	-1.5%
Near and Middle East		21 907	18 463	17 157	14 248	13 523	13 107	-3.1%
Africa		20 503	21 794	22 804	23 636	18 636	21 923	17.6%
<i>by country of origin:</i>								
Algeria		1 039	1 485	1 476	1 571	1 058	1 502	42.0%
Nigeria		7 865	8 679	9 165	8 678	5 278	6 456	22.3%
Saudi Arabia		9 360	6 275	6 628	6 291	6 750	6 994	3.6%
Kuwait		14	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		267	249	249	420	910	2 553	180.5%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	64 090	64 380	66 700	:	:	:	
<i>among which:</i>								
Cracking and others		22 360	23 930	20 700	:	:	:	
Reforming		8 520	8 520	7 800	:	:	:	


## 4.2 Petroleum products

 eurostat	ESPAÑA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	61 657	60 841	59 830	57 806	57 931	57 640	-0.5%
<i>among which:</i>							
Motor spirit	9 930	9 437	9 616	9 272	8 871	9 059	2.1%
Kerosene and jet fuel	3 919	4 272	4 118	4 002	3 830	4 793	25.1%
Naphtha	2 940	3 102	3 358	3 076	3 000	1 917	-36.1%
Gas/diesel oil	19 969	20 368	20 066	20 177	20 820	21 631	3.9%
Residual fuel oil	15 058	14 126	13 080	11 784	12 122	10 130	-16.4%
Total imports	15 576	16 991	19 557	21 194	22 645	23 988	5.9%
Total exports	8 879	6 926	7 367	6 223	5 926	6 802	14.8%
Bunkers	6 185	6 033	6 150	6 884	7 059	7 191	1.9%
Stock changes	-775	-969	-150	712	-805	610	175.8%
Gross inland consumption	-263	3 063	5 890	8 799	8 855	10 605	19.8%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	344	657	473	493	926	766	-17.3%
United Kingdom	774	1 379	972	996	1 495	2 112	41.3%
Norway	228	123	193	123	350	166	-52.6%
OPEC	4 616	2 277	5 667	4 042	4 552	4 221	-7.3%
Imports by product							
<i>among which:</i>							
Motor spirit	777	886	938	933	967	982	1.6%
Kerosene and jet fuel	388	424	550	815	821	860	4.8%
Gas/diesel oil	4 829	6 749	7 244	8 055	9 342	10 800	15.6%
Residual fuel oil	2 289	2 235	2 756	3 297	3 718	3 499	-5.9%
Exports by product							
<i>among which:</i>							
Motor spirit	1 925	1 612	2 374	2 291	2 174	1 888	-13.2%
Kerosene and jet fuel	102	250	180	134	247	349	41.3%
Gas/diesel oil	957	729	848	572	783	747	-4.6%
Residual fuel oil	2 767	1 400	1 054	876	328	992	202.4%
<b>Consumption</b>							
Inputs to electricity plants	3 419	5 193	4 631	5 266	5 900p	5 571p	-5.6%
Inputs to heating plants	-	-	-	-	-	-	-
Non-energy use	8 748	8 532	9 092	9 372	8 667p	9 004p	3.9%
Final energy consumption	42 845	43 596	45 629	47 170	48 192p	49 537p	2.8%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	900	925	1 136	1 208	1 184p	1 280p	8.1%
Residual fuel oil	2 531	1 862	1 743	1 649	1 873p	1 525p	-18.6%


 eurostat	ESPANA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	537	425	538	540	525p	524p	-0.2%	
Non-ferrous metals	132	144	152	145	159p	144p	-9.4%	
Chemical industry	1 090	772	767	770	785p	710p	-9.6%	
Non-met. mineral prod.	3 013	2 532	2 903	3 217	2 970p	3 149p	6.0%	
Food, drink, tobacco	682	587	599	612	653p	632p	-3.2%	
Pulp, paper and print	302	313	301	285	315p	273p	-13.3%	
Engineering & metal	387	394	451	438	438p	444p	1.4%	
Other industries	358	403	427	458	480p	457p	-4.8%	
<b>Transport</b>	29 401	30 830	31 684	33 022	33 576p	35 314p	5.2%	
<i>among which:</i>								
Motor spirit	9 018	8 938	8 534	8 492	8 219p	8 051	-2.0%	
Jet fuel	3 858	4 087	4 368	4 407	4 181p	4 387p	4.9%	
Diesel oil	16 215	17 500	18 485	19 834	20 836p	22 540p	8.2%	
<b>Services &amp; households etc.</b>	6 498	6 885	7 476	7 357	7 296p	7 554p	3.5%	
<i>among which:</i>								
Gas oil	4 016	4 305	5 047	5 087	4 988p	5 393p	8.1%	
Residual fuel oil	417	491	440	419	463p	349p	-24.6%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	4 978	4 449	5 240	1 000	6 159	6 770	9.9%	
Petroleum products	9 743	10 484	10 634	9 922	10 727	10 117	-5.7%	




## 5. Natural gas

 eurostat	ESPANA								
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		4 762	6 084	6 883	21 904	21 718	9 149	-57.9%	
Total imports		560 924	646 766	719 516	736 262	880 596	984 756	11.8%	
Total exports		-	-	-	-	-	-	-	
Stock changes		-25 634	-34 630	-18 407	4 758	-30 009	-565	98.1%	
Gross inland consumption		540 052	618 220	707 992	762 924	872 305	993 340	13.9%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		-	-	-	-	-	-	-	
Algeria		373 856	416 533	433 743	406 272	514 858	565 396	9.8%	
Norway		96 187	96 406	96 681	96 586	95 133	97 848	2.9%	
<b>Consumption</b>									
Inputs to electricity plants		98 499	137 847	124 891	130 702	209 401	247 807	18.3%	
Inputs to heat plants		-	-	-	-	-	-	-	
Consumption of energy branch		1 200	837	-	-	-	-	-	
Distribution losses		12 195	11 413	11 687	5 116	5 037	6 287	24.8%	
Non-energy use		22 906	15 000	22 070	21 915	20 704	21 914	5.8%	
Industry		313 623	342 767	425 685	465 396	481 431	540 839	12.3%	
<i>among which:</i>									
Iron&steel industry		28 499	31 426	39 028	55 615	49 062	57 588	17.4%	
Non-ferrous metals		7 675	6 076	7 546	12 818	21 877	15 365	-29.8%	
Chemical industry		57 986	67 987	84 434	73 457	90 456	87 115	-3.7%	
Non-met. mineral prod.		84 252	106 251	131 954	152 103	122 969	166 947	35.8%	
Food, drink, tobacco		30 605	34 841	43 269	53 248	65 166	60 398	-7.3%	
Pulp, paper and print		40 270	38 542	47 866	28 171	39 148	60 188	53.7%	
Engineering & metal		31 878	26 006	32 298	47 539	36 940	48 831	32.2%	
Other industries		3 826	3 549	4 407	20 062	30 365	21 596	-28.9%	
Transport		272	483	-	-	32	-		
Services & households etc.		90 984	109 873	123 659	139 796	155 701	171 938	10.4%	
<i>among which:</i>									
Households		66 670	81 519	91 748	104 156	116 871	136 792	17.0%	
Services		22 535	24 575	27 658	33 838	36 471	15 230	-58.2%	


## 6.1 Hard coal


 eurostat	ESPANA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	16 212	15 435	14 947	13 960	13 308	12 583	-5.4%	
Total imports	14 554	20 198	21 649	18 916	24 514	21 552	-12.1%	
Total exports	-	-	-	22	17	-		
Stock changes	-643	-849	655	115	-302	751	348.7%	
Gross inland consumption	30 136	34 800	37 251	32 969	37 503	34 886	-7.0%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	2 964	2 355	2 497	1 884	1 904	1 479	-22.3%	
Poland	221	542	313	293	240	24	-90.0%	
CIS	120	1 395	1 600	1 891	2 465	2 097	-14.9%	
Australia	1 243	2 255	3 015	3 498	3 721	3 805	2.3%	
South Africa	5 532	8 666	9 180	7 147	10 765	8 835	-17.9%	
Colombia	419	740	1 112	395	1 622	1 478	-8.9%	
<b>Consumption</b>								
Inputs to electricity plants	24 980	29 979	32 427	27 745	32 402	29 793	-8.1%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	7	10	104	35	62	60	-3.2%	
Industry								
<i>among which:</i>								
Iron&steel industry	494	709	681	764	689	542	-21.3%	
Non-ferrous metals	10	8	-	-	-	-	-	
Chemical industry	90	75	60	265	268	262	-2.2%	
Non-met. mineral prod.	327	264	222	298	243	209	-14.0%	
Food, drink, tobacco	-	-	-	-	-	-	-	
Pulp, paper and print	10	5	-	-	-	-	-	
Engineering & metal	10	6	-	-	-	-	-	
Other industries	-	-	250	100	100	100	0.0%	
Services & households etc.	380	274	116	101	120	150	25.0%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	17.8	16.9	16.7	15.8	12.2	11.0	-9.8%	
Number of active hard coal mines (end of year)	109	106	95	91	89	:		

## 6.2 Coal derivatives and peat

	ESPANA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	2 631	2 331	2 470	2 648	2 627	2 494	-5.1%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	9 750	8 832	8 524	8 718	8 726	7 979	-8.6%
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	22 255	17 300	19 864	22 529	22 258	22 368	0.5%
Blast-furnace gas	20 573	19 196	19 215	21 671	20 583	17 562	-14.7%
Gasworks gas	1 962	1 385	3 983	1 553	1 520	1 599	5.2%
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	1 532	1 409	1 249	1 250	1 356	1 409	3.9%
<i>among which:</i>							
Iron & steel industry	1 364	1 294	1 099	1 034	1 123	1 050	-6.5%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	7 780	3 240	3 733	7 105	7 057	7 308	3.6%
Blast-furnace gas	9 300	6 515	6 521	8 727	8 288	7 118	-14.1%
Gasworks gas	1 962	1 385	3 983	1 553	1 520	1 599	5.2%
Inputs to electricity plants	13 947	16 151	17 027	15 909	15 269	13 703	-10.3%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	11 499	10 290	11 493	10 918	10 713	10 819	1.0%
Consumption in industry	17 080	9 755	10 254	15 832	15 345	14 426	-6.0%


## 7. Renewable energy sources

		ESPANA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	6 943	6 130	7 085	8 262	7 284	9 412	29.2%
Hydro (excl. pumping)		2 924	1 966	2 534	3 527	1 981	3 530	78.2%
Wind		185	236	406	599	748	1 038	38.7%
Solar		26	29	32	37	43	48	13.6%
Geothermal		4	5	8	8	8	8	0.0%
Biomass		3 806	3 894	4 105	4 091	4 505	4 788	6.3%
	<i>among which:</i>							
Wood, wood-waste		3 538	3 606	3 630	3 678	3 904	4 044	3.6%
Municipal solid waste		187	199	279	279	279	279	0.0%
Biogas		82	90	131	134	170	257	51.0%
Gross inland consumption		6 943	6 130	7 085	8 262	7 284	9 412	29.2%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		429	501	679	714	967	1 166	20.5%
	<i>among which:</i>							
Wood, wood-waste		161	212	294	326	547	659	20.4%
Municipal waste		187	199	279	279	279	279	0.0%
Biogas		82	90	106	109	141	228	61.4%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	3 405	3 426	3 465	3 418	3 582	3 671	2.5%
	<i>by sector:</i>							
Industry		1 386	1 401	1 302	1 314	1 319	1 343	1.8%
Services & households etc.		2 019	2 025	2 098	2 103	2 111	2 119	0.4%
Transport		-	-	65	-	152	209	37.4%
	<i>by source:</i>							
Biomass		3 377	3 394	3 427	3 374	3 534	3 619	2.4%
	<i>among which:</i>							
Wood, wood-waste		3 377	3 394	3 337	3 349	3 354	3 381	0.8%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	25	25	29	29	0.0%
Geothermal		4	5	8	8	8	8	0.0%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		4	17	18	24	30	40	33.3%
Hydro with installed capacity < 1 MW		897	601	479	496	414	648	56.5%
Hydro with installed capacity > 1 & <10 MW		4 333	3 289	3 957	4 418	3 614	410	-88.7%
Hydro with installed capacity > 10 MW		30 256	18 973	21 929	36 113	16 184	39 996	147.1%
Wood, Wood-waste		841	917	841	969	1 831	4 229	131.0%
Municipal waste		639	660	667	667	667	661	-0.9%
Biogas		161	197	316	328	472	758	60.6%

		ESPANA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		7	9	12	16	20	27	35.0%
Hydro with installed capacity < 1 MW		209	227	228	235	238	244	2.5%
Hydro with installed capacity > 1 & <10 MW		1 297	1 303	1 339	1 383	1 414	1 479	4.6%
Hydro with installed capacity > 10 MW		11 500	11 193	11 105	11 126	11 126	11 111	-0.1%
Wood, Wood-waste		128	138	150	167	285	329	15.4%
Municipal waste		94	94	94	94	94	94	0.0%
Biogas		-	34	50	51	73	125	71.2%
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	80	80	187	257	37.4%
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	341	362	403	455	515	581	12.8%

# 1. Energy economy

## Key figures and energy indicators

		FRANCE					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	124 162	126 347	130 579	131 648	133 106	134 883
Net energy imports		131 561	131 541	133 463	135 914	136 844	138 004
Net oil imports		93 324	89 767	90 452	95 648	93 948	94 232
Net gas imports		30 128	34 808	35 778	34 952	36 741	37 599
Gross inland energy consumption		254 548	254 244	258 478	266 213	266 197	270 621
Final energy consumption		150 825	150 719	151 624	158 820	154 403	158 306
Industry		36 907	35 581	36 067	38 064	37 751	37 296
Transport		49 645	49 732	51 599	51 787	51 731	51 261
Services and households etc.		64 272	65 406	63 958	68 970	64 921	69 748
Gross electricity generation	GWh	511 027	523 985	540 668	550 488	559 197	566 900
Final electricity consumption		367 156	374 677	385 111	395 489	393 359	408 433
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	1 287 797	1 330 927	1 385 083	1 413 497	1 430 762	1 442 231
Population	1000 per.	58 299	58 497	58 749	59 043	59 343	59 635
Industry added value	Mio EUR	301 398	310 123	305 298	313 059	312 678	314 484
Total imports (current prices)	Mio EUR	330 107	356 417	409 634	418 577	425 703	428 690
among which:							
All energy commodities		14 920	17 784	32 629	31 488	29 398	31 081
Oil products		10 618	13 530	25 910	23 541	21 865	22 726
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	197.7	191.0	186.6	188.3	186.1	187.6
Final energy consumption / GDP(95)		117.1	113.2	109.5	112.4	107.9	109.8
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		122.5	114.7	118.1	121.6	120.7	118.6
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		27.0	26.6	25.3	27.0	25.3	27.3
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	4 366	4 346	4 400	4 509	4 486	4 538
Final energy consumption / capita		2 587	2 577	2 581	2 690	2 602	2 655
Household consumption / capita		665	678	654	701	650	693
Electricity consumption / capita	kWh/cap.	6 635	6 551	6 787	6 821	7 003	7 306
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	51.1	51.2	51.0	50.5	50.9	50.5
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	59.3	59.3	58.7	59.7	58.0	58.5
Efficiency of thermal power stations		38.1	38.2	36.3	40.4	38.5	38.1

## 2. Energy balance

### Principal aggregates by product

eurostat	FRANCE						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	124 162	126 347	130 579	131 648	133 106	134 883	1.3%
<i>among which:</i> Hard coal	2 915	2 717	1 898	1 182	889	1 037	16.7%
Lignite and peat	307	234	123	135	62	4	-93.9%
Crude oil	1 981	1 806	1 675	1 646	1 330	1 417	6.6%
Natural Gas	1 837	1 670	1 505	1 510	1 450	1 282	-11.6%
Nuclear heat	100 083	101 697	107 093	108 617	112 664	113 776	1.0%
Hydro-electricity	5 388	6 271	5 823	6 460	5 257	5 134	-2.3%
Biomass	11 453	11 232	11 579	11 802	11 134	12 056	8.3%
<b>Imports</b>							
Total	159 170	157 734	163 436	163 161	163 879	167 934	2.5%
<i>among which:</i> Hard coal	12 321	11 931	12 693	10 674	12 133	11 130	-8.3%
Crude oil and feedstocks	91 396	82 653	86 186	87 113	80 835	86 209	6.6%
Petroleum products	23 115	26 418	26 713	28 239	32 167	30 517	-5.1%
Natural Gas	30 834	35 462	36 459	35 751	37 495	38 436	2.5%
Electricity	395	427	318	384	259	531	105.3%
<b>Exports</b>							
Total	27 609	26 194	29 974	27 246	27 035	29 930	10.7%
<i>among which:</i> Crude oil and feedstocks	1 412	1 364	1 811	-	-	63	
Petroleum products	19 776	17 940	20 635	19 704	19 055	22 431	17.7%
Natural gas	706	655	681	799	754	837	11.0%
Electricity	5 344	5 856	6 292	6 265	6 871	6 206	-9.7%
<b>Gross inland consumption</b>							
Total	254 548	254 244	258 478	266 213	266 197	270 621	1.7%
<i>among which:</i> Solid fuels	17 155	15 364	15 240	12 532	13 773	13 832	0.4%
Crude oil and petrol. prod.	91 868	90 909	88 790	94 988	92 364	91 981	-0.4%
Natural gas	33 413	34 068	35 766	37 548	37 484	39 382	5.1%
Nuclear Energy	100 083	101 697	107 093	108 617	112 664	113 776	1.0%
Renewables	16 978	17 635	17 563	18 409	16 525	17 325	4.8%
<b>Transformation input</b>							
Total	215 093	206 914	216 750	217 580	217 091	223 092	2.8%
<i>among which:</i> Crude oil and feedstocks	95 387	86 602	90 084	91 831	85 705	89 429	4.3%
Petroleum products	1 945	1 783	1 342	975	920	1 237	34.4%
Hard coal	12 268	11 048	11 030	9 223	9 724	10 507	8.1%
Lignite and peat	508	430	117	115	70	4	-94.4%
Renewables	1 675	1 662	1 874	2 003	2 054	2 140	4.2%
<b>Transformation output</b>							
Total	139 315	128 448	133 020	137 851	132 986	137 257	3.2%
<i>among which:</i> Electricity	38 210	38 379	40 257	40 508	42 345	43 137	1.9%
Heat	-	-	-	-	-	-	-

**Final energy consumption**

Total	150 825	150 719	151 624	158 820	154 403	158 306	2.5%
<i>among which:</i> Solid fuels	6 746	5 780	5 775	5 241	5 010	4 861	-3.0%
Petroleum products	72 380	71 625	71 428	76 334	73 674	74 249	0.8%
Natural Gas	29 047	30 325	30 394	32 306	31 644	33 011	4.3%
Renewables	9 779	9 570	9 710	9 807	9 065	9 873	8.9%
Electricity	31 570	32 216	33 114	34 006	33 823	35 119	3.8%

**Final energy consumption by sector**
**Industry**

Total	36 907	35 581	36 067	38 064	37 751	37 296	-1.2%
<i>among which:</i> Solid fuels	5 892	5 034	5 154	4 633	4 585	4 439	-3.2%
Petroleum Products	5 123	4 437	4 456	7 521	6 090	6 349	4.3%
Natural Gas	11 756	11 997	12 103	12 049	13 238	12 699	-4.1%
Renewables	1 650	1 638	1 679	1 282	1 310	1 335	1.9%
Electricity	11 349	11 402	11 620	11 579	11 466	11 429	-0.3%

**Transport**


Total	49 645	49 732	51 599	51 787	51 731	51 261	-0.9%
<i>among which:</i> Motor spirit	15 295	15 221	14 631	14 110	13 619	12 757	-6.3%
Diesel oil	26 877	26 581	28 679	29 480	30 019	30 435	1.4%
Jet fuel	6 047	6 448	6 683	6 613	6 505	6 490	-0.2%
Electricity	955	968	1 004	1 005	1 030	1 034	0.4%

**Services&households**

Total	64 272	65 406	63 958	68 970	64 921	69 748	7.4%
<i>among which:</i> Solid fuels	854	745	621	608	425	422	-0.7%
Gas oil	15 194	15 079	13 216	15 297	14 249	14 748	3.5%
Natural Gas	17 291	18 328	18 289	20 234	18 379	20 274	10.3%
Renewables	7 870	7 652	7 703	8 199	7 431	8 213	10.5%
Electricity	19 266	19 846	20 489	21 422	21 326	22 656	6.2%
Heat	-	-	-	-	-	-	-




### 3.1 Electricity balance

 eurostat	FRANCE						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	511 027	523 985	540 668	550 488	559 197	566 900	1.4%
<i>among which:</i>							
Hydro	66 627	77 601	72 398	79 248	66 456	64 877	-2.4%
Wind	20	37	77	131	268	341	27.2%
Geothermal	-	-	-	-	-	-	-
Nuclear	387 990	394 244	415 162	421 072	436 760	441 070	1.0%
Conventional thermal	56 390	52 103	53 031	50 037	55 713	60 612	8.8%
<i>of which:</i>							
Hard coal	31 770	28 371	27 020	20 046	23 460	26 240	11.8%
Lignite and peat	1 762	908	409	401	245	19	-92.2%
Petroleum products	11 651	9 952	7 479	5 460	7 239	8 673	19.8%
Natural gas	4 975	6 933	11 193	14 027	16 208	17 143	5.8%
Derived gases	3 780	3 065	3 635	3 710	3 940	3 484	-11.6%
Biomass	2 452	2 874	3 295	3 355	4 616	5 046	9.3%
Industrial wastes	-	-	-	3 038	5	7	40.0%
Total net generation	487 655	500 310	516 678	526 807	535 023	542 266	1.4%
<b>Imports and exports</b>							
Total imports	4 590	4 965	3 695	4 471	3 009	6 177	105.3%
Total exports	62 152	68 108	73 174	72 861	79 912	72 175	-9.7%
<b>Consumption and losses</b>							
Consumption of the energy branch	51 119	51 661	51 470	51 224	52 713	55 591	5.5%
<i>of which:</i>							
Consumption for pumped-storage	1 596	1 626	1 924	1 698	2 177	2 127	-2.3%
Network losses	31 230	29 832	29 928	31 261	30 900	31 700	2.6%
Final energy consumption	367 156	374 677	385 111	395 489	393 359	408 433	3.8%
<i>of which:</i>							
Industry	131 987	132 610	135 145	134 665	133 350	132 915	-0.3%
<i>among which:</i>							
Iron&steel industry	15 803	15 284	17 152	16 714	16 162	15 999	-1.0%
Non-ferrous metals	9 004	9 421	9 701	10 080	10 211	9 836	-3.7%
Chemical industry	25 835	25 085	25 735	25 106	24 738	24 452	-1.2%
Non-met. mineral prod.	8 900	9 667	8 124	8 374	8 550	8 559	0.1%
Food, drink, tobacco	16 740	17 186	17 700	18 444	18 931	19 279	1.8%
Pulp, paper and print	11 802	11 818	13 693	13 337	13 617	14 118	3.7%
Engineering & metal	24 647	25 149	23 487	22 995	22 851	22 942	0.4%
Other industries	14 489	14 572	14 037	14 400	13 373	12 993	-2.8%
Transport	11 107	11 254	11 681	11 686	11 982	12 028	0.4%
Services & households etc.	224 062	230 813	238 285	249 138	248 027	263 490	6.2%
<i>among which:</i>							
Households	123 147	126 933	128 720	133 887	132 998	140 800	5.9%


## 3.2 Electrical capacity, fuel inputs and heat


eurostat	FRANCE							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	112 348	114 516	115 087	115 747	116 234	116 199	0.0%
<i>by source:</i>								
Conventional thermal		25 558	26 193	26 799	27 210	27 278	27 387	0.4%
<i>of which:</i>								
Steam		22 889	23 540	24 146	24 490	24 545	24 654p	0.4%
Gas turbine		2 026	2 100	2 100	2 152	2 162	2 162p	0.0%
Combined cycle		-	-	-	-	-	-	-
Internal combustion		643	553	553	568	571	571p	0.0%
Nuclear		61 675	63 183	63 183	63 183	63 273	63 363	0.1%
Hydro		25 095	25 115	25 050	25 272	25 551	25 235	-1.2%
<i>among which:</i>								
Pumped storage		4 303	4 302	4 302	4 302	4 303	4 303	0.0%
Wind		20	25	55	82	132	214	62.1%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		102 413	106 219	105 543	105 798	105 922	105 783	-0.1%
Autoproducers		10 183	8 546	9 795	10 203	10 393	10 664	2.6%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	12 735	11 741	12 563	10 655	12 447	13 689	10.0%
<i>among which:</i>								
Hard coal		7 438	6 277	6 114	4 524	5 392	6 156	14.2%
Lignite and peat		508	430	117	115	70	4	-94.4%
Petroleum products		1 844	1 669	1 272	954	844	1 184	40.3%
Natural gas		725	1 070	2 466	2 485	3 482	3 674	5.5%
Renewables		1 326	1 305	1 532	1 716	1 779	1 860	4.6%
Heating plants		349	357	342	288	275	281	1.9%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		349	357	342	288	275	281	1.9%
<b>Heat production and consumption</b>								
Total heat production	TJ	-	-	-	-	-	-	-
<i>among which: in heating plants</i>								
Heat consumption		-	-	-	-	-	-	-
<i>of which: in industry</i>								
in households and services		-	-	-	-	-	-	-
<i>among which: in households</i>								
		-	-	-	-	-	-	-

## 4.1 Crude oil and feedstocks


 eurostat	FRANCE								
	in 1 000 t		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		1 960	1 795	1 666	1 632	1 317	1 405	6.7%	
Total imports		90 443	82 145	85 698	86 362	80 058	85 465	6.8%	
Total exports		1 391	1 344	1 784	-	-	62		
Stock changes		-515	-307	-427	-312	106	-1 173	-1206.6%	
Refinery intake		94 380	86 042	89 536	91 012	84 860	88 641	4.5%	
<b>Imports of Crude Oil by origin</b>									
<i>by region of origin:</i>									
OPEC		49 356	42 124	39 827	34 221	30 015	34 947	16.4%	
Near and Middle East		39 327	33 589	31 608	24 836	22 958	21 075	-8.2%	
Africa		15 756	11 949	13 798	18 658	16 032	18 706	16.7%	
<i>by country of origin:</i>									
Algeria		3 446	2 952	3 440	4 266	3 639	5 879	61.6%	
Nigeria		6 249	4 867	4 844	5 260	4 296	5 323	23.9%	
Saudi Arabia		18 108	15 069	15 226	11 345	10 568	11 245	6.4%	
Kuwait		843	1 744	1 374	1 110	1 621	2 113	30.4%	
United Arab Emirates		557	-	6	255	-	-	-	
Norway		17 778	14 843	21 141	19 371	16 226	16 189	-0.2%	
<b>Refining capacity</b>									
Capacity at the end of year	1 000 t/year	95 520	96 240	96 450	:	:	:		
<i>among which:</i>									
Cracking and others		31 710	32 270	33 280	:	:	:		
Reforming		11 360	11 510	12 090	:	:	:		

## 4.2 Petroleum products


 eurostat	FRANCE						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	93 673	83 050	85 863	90 683	84 309	87 901	4.3%
<i>among which:</i>							
Motor spirit	19 618	16 171	15 487	18 273	17 026	16 946	-0.5%
Kerosene and jet fuel	6 755	6 510	6 112	6 162	5 307	5 245	-1.2%
Naphtha	5 398	4 642	5 776	5 695	5 458	6 000	9.9%
Gas/diesel oil	35 988	31 698	33 428	35 132	33 301	35 283	6.0%
Residual fuel oil	12 150	10 799	11 068	11 291	10 626	10 919	2.8%
Total imports	23 061	26 917	26 715	28 281	32 073	30 550	-4.7%
Total exports	19 662	17 994	20 676	19 686	19 172	22 477	17.2%
Bunkers	2 955	2 985	3 085	2 767	2 692	2 902	7.8%
Stock changes	-510	1 487	-1 145	90	-1 103	-340	69.2%
Gross inland consumption	70	8 070	2 587	6 149	9 356	4 921	-47.4%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	2 847	2 660	2 854	1 993	2 966	1 576	-46.9%
United Kingdom	3 279	3 869	3 399	2 271	3 533	3 202	-9.4%
Norway	618	553	594	523	433	348	-19.6%
OPEC	2 773	4 589	3 832	4 314	4 356	3 548	-18.5%
Imports by product							
<i>among which:</i>							
Motor spirit	2 431	2 029	2 489	1 715	1 744	1 082	-38.0%
Kerosene and jet fuel	1 054	1 704	2 228	2 551	2 734	2 643	-3.3%
Gas/diesel oil	11 297	11 668	10 875	14 087	16 076	16 778	4.4%
Residual fuel oil	1 600	1 323	4 123	2 845	3 292	2 364	-28.2%
Exports by product							
<i>among which:</i>							
Motor spirit	5 524	5 102	5 314	4 751	4 439	5 029	13.3%
Kerosene and jet fuel	1 885	1 335	1 207	1 231	903	894	-1.0%
Gas/diesel oil	2 710	2 230	2 430	1 993	1 960	2 106	7.4%
Residual fuel oil	4 663	4 332	5 382	5 699	5 693	7 084	24.4%
<b>Consumption</b>							
Inputs to electricity plants	1 929	1 746	1 330	1 000	887	1 271	43.3%
Inputs to heating plants	-	-	-	-	-	-	-
Non-energy use	14 468	14 618	13 415	12 707	12 351	12 224	-1.0%
Final energy consumption	71 070	70 390	70 104	75 431	72 674	73 064	0.5%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	1 480	1 092	1 236	1 318	1 202	1 141	-5.1%
Residual fuel oil	2 307	1 803	1 741	1 885	1 845	1 691	-8.3%

 eurostat	FRANCE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	168	111	146p	193	113	20	-82.3%	
Non-ferrous metals	272	271	322p	76	60	64	6.7%	
Chemical industry	689	391	422p	3 275	1 998	2 378	19.0%	
Non-met. mineral prod.	1 212	1 673	1 412p	1 738	1 454	1 339	-7.9%	
Food, drink, tobacco	875	595	638p	756	792	668	-15.7%	
Pulp, paper and print	261	266	259p	210	207	202	-2.4%	
Engineering & metal	312	298	321p	279	242	262	8.3%	
Other industries	1 412	984	976p	1 444	1 227	1 288	5.0%	
<b>Transport</b>	47 243	47 286	49 067	49 254	49 193	48 748	-0.9%	
<i>among which:</i>								
Motor spirit	14 554	14 483	13 922	13 426	12 959	12 139	-6.3%	
Jet fuel	5 888	6 278	6 507	6 439	6 334	6 319	-0.2%	
Diesel oil	26 603	26 310	28 386	29 179	29 712	30 124	1.4%	
<b>Services &amp; households etc.</b>	18 484	18 369	16 394	18 073	16 903	17 684	4.6%	
<i>among which:</i>								
Gas oil	15 039	14 925	13 081	15 141	14 103	14 597	3.5%	
Residual fuel oil	1 047	1 082	979	925	577	664	15.1%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	7 958	8 265	8 692	9 027	8 913	10 086	13.2%	
Petroleum products	14 837	13 350	14 495	14 015	14 813	15 153	2.3%	


## 5. Natural gas

 eurostat	FRANCE								
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		85 475	77 670	69 999	70 222	67 438	59 621	-11.6%	
Total imports		1 434 395	1 649 710	1 696 095	1 663 132	1 744 261	1 788 025	2.5%	
Total exports		32 836	30 456	31 680	37 181	35 068	38 937	11.0%	
Stock changes		67 345	-112 078	-70 560	50 563	-32 860	23 331	171.0%	
Gross inland consumption		1 554 379	1 584 846	1 663 854	1 746 736	1 743 771	1 832 040	5.1%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		400 479	482 256	480 910	372 921	380 431	422 132	11.0%	
Algeria		400 723	414 641	406 598	362 051	377 687	389 188	3.0%	
Norway		433 991	536 137	504 950	444 774	465 076	542 125	16.6%	
<b>Consumption</b>									
Inputs to electricity plants		33 714	49 791	114 723	115 597	162 000	170 910	5.5%	
Inputs to heat plants		-	-	-	-	-	-	-	
Consumption of energy branch		14 486	17 320	13 891	21 553	13 395	13 364	-0.2%	
Distribution losses		2 490	2 619	16 118	9 892	0p	9 388		
Non-energy use		106 776	103 146	108 001	97 947	98 754	100 189	1.5%	
<b>Industry</b>									
<i>among which:</i>									
Iron&steel industry		44 244	39 614	28 591	27 202	25 650	25 133	-2.0%	
Non-ferrous metals		16 109	17 180	16 741	16 490	13 826	12 282	-11.2%	
Chemical industry		85 424	96 095	110 717	110 646	98 908	105 826	7.0%	
Non-met. mineral prod.		78 414	78 163	79 166	79 218	89 359	92 989	4.1%	
Food, drink, tobacco		102 971	106 468	114 765	114 566	116 688	100 530	-13.8%	
Pulp, paper and print		63 335	66 401	66 107	65 963	66 325	67 288	1.5%	
Engineering & metal		71 186	74 125	81 204	80 912	73 349	77 803	6.1%	
Other industries		58 874	54 438	43 198	43 089	113 358	90 973	-19.7%	
Transport		14	14	86	1 080	1 260	1 764	40.0%	
<b>Services &amp; households etc.</b>									
<i>among which:</i>									
Households		406 970	441 558	439 457	485 846	441 059	487 385	10.5%	
Services		385 657	399 324	397 604	439 574	399 054	440 988	10.5%	

## 6.1 Hard coal


 eurostat	FRANCE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	4 862	4 532	3 166	1 972	1 483	1 730	16.7%	
Total imports	18 424	17 841	18 980	15 960	18 142	16 643	-8.3%	
Total exports	65	78	89	105	123	84	-31.7%	
Stock changes	878	-466	-894	16	-669	1 977	395.5%	
Gross inland consumption	24 612	22 427	21 801	18 218	19 270	20 770	7.8%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	3 333	3 041	3 356	2 688	1 890	2 109	11.6%	
Poland	1 304	1 456	1 617	877	1 002	702	-29.9%	
CIS	102	100	353	263	324	328	1.2%	
Australia	2 457	2 303	3 841	3 891	4 589	4 527	-1.4%	
South Africa	2 189	2 053	4 501	3 361	4 869	4 003	-17.8%	
Colombia	1 396	1 289	1 914	1 393	1 611	2 322	44.1%	
<b>Consumption</b>								
Inputs to electricity plants	12 359	10 430	10 159	7 518	8 682	9 913	14.2%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	195	379	8	123	21	25	19.0%	
Industry								
<i>among which:</i>								
Iron&steel industry	2 252	2 394	2 462	2 251	2 506	2 439	-2.7%	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	310p	-	-	-	385	381	-1.0%	
Non-met. mineral prod.	290p	202	201	200	270	267	-1.1%	
Food, drink, tobacco	-	597	557	477	401	397	-1.0%	
Pulp, paper and print	280p	183	163	143	165	163	-1.2%	
Engineering & metal	-	27	18	9	2	2	0.0%	
Other industries	250p	-	-	-	2	1	-50.0%	
Services & households etc.	849	860	698	732	470	477	1.5%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	5.1	5.0	5.0	4.5	-	-	-	
Number of active hard coal mines (end of year)	4	4	4	4	4	:		


## 6.2 Coal derivatives and peat

	FRANCE						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	5 500	5 418	5 234	5 091	4 552	4 601	1.1%
Patent Fuel	194	163	122	83	70	41	-41.4%
Lignite and peat	737	560	296	324	148	9	-93.9%
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	43 690	43 859	41 780	39 505	34 765	35 143	1.1%
Blast-furnace gas	67 356	68 346	70 428	61 534	66 615	63 350	-4.9%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	3 990	3 519	3 491	3 245	3 357	3 195	-4.8%
<i>among which:</i>							
Iron & steel industry	3 300	2 848	2 856	3 157	2 899	2 765	-4.6%
Services & households	71	56	50	44	39	29	-25.6%
Patent Fuel	278	233	198	147	143	143	0.0%
<i>among which:</i>							
Services & households	278	233	198	147	143	143	0.0%
Lignite and peat	135	60	89	109	24	42	75.0%
<i>among which:</i>							
Industry	104	35	53	59	23	42	82.6%
Services & households	31	25	36	50	1	-	
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	23 538	21 416	18 973	19 693	20 017	19 877	-0.7%
Blast-furnace gas	25 300	25 621	27 058	24 129	26 448	25 881	-2.1%
Gasworks gas	2 743	-	-	-	-	-	-
Inputs to electricity plants	38 081	42 599	45 868	37 107	37 701	34 837	-7.6%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	21 402	21 103	18 382	18 941	16 627	18 082	8.8%
Consumption in industry	50 087	47 037	46 031	43 822	46 465	45 758	-1.5%




## 7. Renewable energy sources

		FRANCE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	16 978	17 635	17 558	18 401	16 539	17 368	5.0%
Hydro (excl. pumping)		5 388	6 271	5 823	6 460	5 257	5 134	-2.3%
Wind		2	3	7	11	23	29	27.2%
Solar		17	18	25	18	19	20	5.7%
Geothermal		117	112	124	109	107	129	20.7%
Biomass		11 453	11 232	11 579	11 802	11 134	12 056	8.3%
	<i>among which:</i>							
Wood, wood-waste		9 484	9 234	9 231	9 387	8 573	9 358	9.2%
Municipal solid waste		1 560	1 560	1 854	1 932	2 043	2 142	4.8%
Biogas		150	158	171	166	179	190	5.8%
Gross inland consumption		16 978	17 635	17 563	18 409	16 525	17 325	4.8%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		1 675	1 662	1 874	2 003	2 054	2 140	4.2%
	<i>among which:</i>							
Wood, wood-waste		192	171	213	342	345	350	1.5%
Municipal waste		1 466	1 466	1 559	1 570	1 606	1 678	4.5%
Biogas		17	24	102	92	103	112	8.9%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	9 913	9 699	9 859	9 934	9 190	10 021	9.0%
	<i>by sector:</i>							
Industry		1 650	1 638	1 679	1 282	1 310	1 335	1.9%
Services & households etc.		8 004	7 782	7 852	8 327	7 556	8 361	10.7%
Transport		259	279	328	326	324	325	0.3%
	<i>by source:</i>							
Biomass		9 779	9 570	9 710	9 807	9 065	9 873	8.9%
	<i>among which:</i>							
Wood, wood-waste		9 099	8 810	8 681	9 045	8 228	9 007	9.5%
Municipal waste		94	94	294	362	437	464	6.1%
Biogas		92	94	69	74	76	77	1.7%
Geothermal		117	112	124	109	107	129	20.7%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	1	7	8	14.3%
Hydro with installed capacity < 1 MW		1 566	1 601	1 656	1 434	1 344	1 313	-2.3%
Hydro with installed capacity > 1 & <10 MW		5 674	5 983	5 961	5 632	5 336	5 095	-4.5%
Hydro with installed capacity > 10 MW		56 288	64 676	59 157	67 515	53 920	52 756	-2.2%
Wood, Wood-waste		1 476	1 401	1 398	1 312	1 324	1 344	1.5%
Municipal waste		1 140	1 140	1 522	1 505	2 900	3 285	13.3%
Biogas		113	144	322	349	392	417	6.4%

	FRANCE						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	8	11	6	7	8	14.3%
Hydro with installed capacity < 1 MW	420	406	407	325	376	373	-0.8%
Hydro with installed capacity > 1 & <10 MW	1 585	1 610	1 549	1 387	1 490	1 494	0.3%
Hydro with installed capacity > 10 MW	19 248	18 614	19 098	19 258	19 143	19 066	-0.4%
Wood, Wood-waste	340	340	340p	340p	340p	340p	0.0%
Municipal waste	272	272	272	272	272p	272p	0.0%
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	319	344	398	391	417	452	8.4%
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	460	475	543	441	536	556	3.7%


# 1. Energy economy

## Key figures and energy indicators

		IRELAND					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	2 479	2 611	2 111	1 730	1 499	1 828
Net energy imports		10 620	11 712	12 141	13 562	13 636	13 448
Net oil imports		7 400	8 281	7 959	8 836	8 803	8 556
Net gas imports		1 396	1 894	2 478	2 925	3 001	3 133
Gross inland energy consumption		13 045	13 826	14 173	14 806	15 131	15 269
Final energy consumption		9 308	9 835	10 520	10 932	11 227	11 318
Industry		1 998	2 073	2 275	2 246	2 381	1 907
Transport		3 295	3 678	4 005	4 274	4 384	4 426
Services and households etc.		4 015	4 083	4 239	4 412	4 462	4 986
Gross electricity generation	GWh	21 155	22 051	23 978	24 956	25 195	25 235
Final electricity consumption		17 668	18 802	20 201	20 929	21 832	23 028
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	66 288	73 647	80 950	85 813	91 076	94 404
Population	1000 per.	3 694	3 732	3 778	3 833	3 900	3 964
Industry added value	Mio EUR	:	:	:	:	:	:
Total imports (current prices)	Mio EUR	54 680	61 286	74 313	79 289	81 938	80 082
among which:							
All energy commodities		997	1 280	2 271	2 097	1 862	1 833
Oil products		725	976	1 861	1 561	1 465	1 470
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	196.8	187.7	175.1	172.5	166.1	161.7
Final energy consumption / GDP(95)		140.4	133.5	130.0	127.4	123.3	119.9
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 532	3 704	3 752	3 863	3 880	3 852
Final energy consumption / capita		2 520	2 635	2 785	2 852	2 879	2 856
Household consumption / capita		651	646	655	681	672	673
Electricity consumption / capita	kWh/cap.	5 381	5 631	6 004	6 118	6 166	6 305
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	80.4	83.7	84.8	90.6	89.3	87.1
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	71.4	71.1	74.2	73.8	74.2	74.1
Efficiency of thermal power stations		37.8	37.4	40.7	39.3	41.4	42.7

## 2. Energy balance

### Principal aggregates by product

 eurostat	IRELAND						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	2 479	2 611	2 111	1 730	1 499	1 828	22.0%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	813	1 251	894	810	534	1 024	91.8%
Crude oil	-	-	-	-	-	-	-
Natural Gas	1 407	1 103	958	659	678	544	-19.8%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	79	73	73	51	78	51	-34.4%
Biomass	166	167	164	180	176	170	-3.1%
<b>Imports</b>							
Total	11 886	12 820	13 464	14 880	15 110	15 032	-0.5%
<i>among which:</i> Hard coal	1 809	1 508	1 710	1 836	1 800	1 653	-8.2%
Crude oil and feedstocks	3 155	2 863	3 002	3 395	3 374	3 289	-2.5%
Petroleum products	5 488	6 502	6 260	6 721	6 886	6 833	-0.8%
Natural Gas	1 396	1 894	2 478	2 925	3 001	3 133	4.4%
Electricity	13	25	15	3	49	101	108.1%
<b>Exports</b>							
Total	1 266	1 109	1 323	1 317	1 474	1 585	7.6%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	88	86	-2.3%
Petroleum products	1 243	1 084	1 302	1 279	1 369	1 480	8.1%
Natural gas	-	-	-	-	-	-	-
Electricity	6	4	6	25	5	1	-83.9%
<b>Gross inland consumption</b>							
Total	13 045	13 826	14 173	14 806	15 131	15 269	0.9%
<i>among which:</i> Solid fuels	2 852	2 522	2 565	2 612	2 559	2 519	-1.6%
Crude oil and petrol. prod.	7 125	8 029	7 906	8 371	8 562	8 712	1.8%
Natural gas	2 803	2 997	3 436	3 584	3 679	3 677	0.0%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	259	257	258	261	288	261	-9.4%
<b>Transformation input</b>							
Total	7 809	7 759	8 203	8 741	8 247	8 178	-0.8%
<i>among which:</i> Crude oil and feedstocks	3 184	2 832	3 310	3 430	3 230	3 245	0.5%
Petroleum products	1 083	1 357	1 006	1 194	915	578	-36.9%
Hard coal	1 473	1 285	1 441	1 528	1 474	1 327	-10.0%
Lignite and peat	692	743	598	714	682	658	-3.5%
Renewables	30	32	24	24	19	19	-3.5%
<b>Transformation output</b>							
Total	5 019	4 811	5 397	5 578	5 366	5 367	0.0%
<i>among which:</i> Electricity	1 702	1 786	1 942	2 038	2 024	2 049	1.2%
Heat	-	-	-	-	-	-	-



in 1 000 toe

**IRELAND**

**1998 1999 2000 2001 2002 2003 03/02**

**Final energy consumption**

Total	9 308	9 835	10 520	10 932	11 227	11 318	0.8%
<i>among which:</i> Solid fuels	858	573	547	503	486	502	3.3%
Petroleum products	5 832	6 473	6 894	7 238	7 321	7 407	1.2%
Natural Gas	964	1 036	1 201	1 234	1 386	1 277	-7.9%
Renewables	135	135	140	156	156	152	-3.1%
Electricity	1 519	1 617	1 737	1 800	1 877	1 980	5.5%

**Final energy consumption by sector**

**Industry**

Total	1 998	2 073	2 275	2 246	2 381	1 907	-19.9%
<i>among which:</i> Solid fuels	77	64	51	48	39	41	5.2%
Petroleum Products	819	887	990	977	942	713	-24.3%
Natural Gas	400	404	470	440	589	437	-25.9%
Renewables	92	92	100	113	113	106	-6.7%
Electricity	609	625	664	667	697	610	-12.5%


**Transport**

Total	3 295	3 678	4 005	4 274	4 384	4 426	0.9%
<i>among which:</i> Motor spirit	1 374	1 487	1 570	1 631	1 667	1 665	-0.1%
Diesel oil	1 444	1 631	1 790	1 880	1 913	1 974	3.2%
Jet fuel	448	529	613	736	782	764	-2.2%
Electricity	2	2	2	2	2	2	0.0%


**Services&households**

Total	4 015	4 083	4 239	4 412	4 462	4 986	11.7%
<i>among which:</i> Solid fuels	780	509	497	456	447	461	3.1%
Gas oil	995	1 051	1 049	1 063	1 068	1 069	0.1%
Natural Gas	564	631	730	794	797	841	5.5%
Renewables	43	43	40	43	43	46	6.6%
Electricity	908	989	1 070	1 130	1 178	1 368	16.1%
Heat	-	-	-	-	-	-	-


### 3.1 Electricity balance

 eurostat	IRELAND						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	21 155	22 051	23 978	24 956	25 195	25 235	0.2%
<i>among which:</i>							
Hydro	1 189	1 090	1 150	920	1 264	956	-24.4%
Wind	169	187	244	334	388	454	17.0%
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	19 797	20 774	22 584	23 702	23 543	23 825	1.2%
<i>of which:</i>							
Hard coal	6 734	5 833	6 817	7 065	6 818	6 203	-9.0%
Lignite and peat	1 697	1 682	1 770	2 193	2 075	2 028	-2.3%
Petroleum products	4 850	6 170	4 639	5 204	3 738	2 453	-34.4%
Natural gas	6 430	6 956	9 262	9 143	10 830	13 055	20.5%
Derived gases	-	-	-	-	-	-	-
Biomass	85	91	96	97	82	86	4.9%
Industrial wastes	1	42	-	-	-	-	-
Total net generation	20 003	20 889	22 775	23 679	23 926	24 085	0.7%
<b>Imports and exports</b>							
Total imports	152	290	169	38	565	1 176	108.1%
Total exports	73	49	71	288	62	10	-83.9%
<b>Consumption and losses</b>							
Consumption of the energy branch	1 372	1 399	1 550	1 546	1 548	1 475	-4.7%
<i>of which:</i>							
Consumption for pumped-storage	120	123	145	157	182	193	6.0%
Network losses	1 921	1 869	2 020	1 907	1 966	2 022	2.8%
Final energy consumption	17 668	18 802	20 201	20 929	21 832	23 028	5.5%
<i>of which:</i>							
Industry	7 087	7 271	7 727	7 760	8 110	7 095	-12.5%
<i>among which:</i>							
Iron&steel industry	302	310	329	150	22	12	-45.5%
Non-ferrous metals	330	339	364	374	323	283	-12.4%
Chemical industry	945	970	1 022	1 051	1 137	996	-12.4%
Non-met. mineral prod.	582	597	639	657	646	566	-12.4%
Food, drink, tobacco	1 716	1 761	1 896	1 950	2 015	1 765	-12.4%
Pulp, paper and print	158	162	172	177	168	147	-12.5%
Engineering & metal	931	955	1 023	1 052	1 130	989	-12.5%
Other industries	1 465	1 502	1 562	1 608	1 939	1 698	-12.4%
Transport	24	25	26	26	23	23	0.0%
Services & households etc.	10 557	11 506	12 448	13 143	13 699	15 910	16.1%
<i>among which:</i>							
Households	5 520	6 544	6 945	7 333	7 449	7 571	1.6%

## 3.2 Electrical capacity, fuel inputs and heat


		IRELAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	4 457	4 346	4 705	4 717	5 429	5 451	0.4%
<i>by source:</i>								
Conventional thermal		3 872	3 754	4 064	4 064	4 760	4 763	0.1%
<i>of which:</i>								
Steam		2 802	2 728	2 858	2 858	2 811	2 727	-3.0%
Gas turbine		679	713	423	423	433	481	11.1%
Combined cycle		275	275	735	735	1 464	1 472	0.5%
Internal combustion		116	38	48	48	52	15	-71.2%
Nuclear		-	-	-	-	-	-	-
Hydro		525	525	525	528	531	528	-0.6%
<i>among which:</i>								
Pumped storage		292	292	292	292	292	292	0.0%
Wind		60	67	116	125	138	160	15.9%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		4 325	4 250	4 614	4 589	5 298	5 451	2.9%
Autoproducers		132	96	128	128	131	-	-
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	4 499	4 770	4 766	5 181	4 893	4 799	-1.9%
<i>among which:</i>								
Hard coal		1 473	1 285	1 441	1 528	1 474	1 327	-10.0%
Lignite and peat		565	586	472	584	557	524	-5.9%
Petroleum products		1 083	1 357	1 006	1 194	915	578	-36.9%
Natural gas		1 348	1 509	1 825	1 851	1 927	2 351	22.0%
Renewables		30	32	24	24	19	19	-3.5%
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	-	-	-	-	-	-	-
<i>among which: in heating plants</i>								
Heat consumption		-	-	-	-	-	-	-
<i>of which: in industry</i>								
in households and services		-	-	-	-	-	-	-
<i>among which: in households</i>								
		-	-	-	-	-	-	-


## 4.1 Crude oil and feedstocks

 eurostat	in 1 000 t	IRELAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		3 148	2 848	2 987	3 371	3 343	3 258	-2.5%
Total exports		-	-	-	-	87	85	-2.3%
Stock changes		-114	-27	329	9	-57	52	191.2%
Refinery intake		3 177	2 817	3 294	3 406	3 200	3 215	0.5%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		3 047	2 707	2 943	2 862	1 970	2 124	7.8%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	3 340	3 700	3 530	:	:	:	
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		530	530	460	:	:	:	




## 4.2 Petroleum products


 eurostat	IRELAND						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	3 163	2 831	3 286	3 365	3 154	3 129	-0.8%
<i>among which:</i>							
Motor spirit	468	435	532	669	660	639	-3.2%
Kerosene and jet fuel	211	217	249	241	314	315	0.3%
Naphtha	121	114	104	12	30	30	0.0%
Gas/diesel oil	1 122	982	1 133	1 173	955	988	3.5%
Residual fuel oil	1 099	988	1 158	1 132	1 047	1 005	-4.0%
Total imports	5 541	6 558	6 305	6 803	6 954	6 917	-0.5%
Total exports	1 288	1 121	1 346	1 318	1 400	1 512	8.0%
Bunkers	158	172	151	161	149	171	14.8%
Stock changes	-9	-54	-218	-313	-31	273	980.6%
Gross inland consumption	4 086	5 211	4 590	5 011	5 374	5 507	2.5%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	14	-	-	11	62	142	129.0%
United Kingdom	5 161	6 210	5 716	5 960	5 775	5 713	-1.1%
Norway	-	-	-	34	607	522	-14.0%
OPEC	80	-	-	-	68	11	-83.8%
Imports by product							
<i>among which:</i>							
Motor spirit	868	990	1 015	1 001	1 035	1 114	7.6%
Kerosene and jet fuel	747	932	1 050	1 196	1 337	1 353	1.2%
Gas/diesel oil	1 714	1 948	2 076	2 069	2 320	2 351	1.3%
Residual fuel oil	1 705	2 207	1 582	1 831	1 497	1 177	-21.4%
Exports by product							
<i>among which:</i>							
Motor spirit	11	7	20	124	162	191	17.9%
Kerosene and jet fuel	9	3	25	16	94	65	-30.9%
Gas/diesel oil	75	10	35	47	50	118	136.0%
Residual fuel oil	1 039	983	1 149	1 096	1 037	1 080	4.1%
<b>Consumption</b>							
Inputs to electricity plants	1 132	1 419	1 051	1 248	957	603	-37.0%
Inputs to heating plants	-	-	-	-	-	-	-
Non-energy use	201	182	179	209	288	222	-22.9%
Final energy consumption	5 769	6 400	6 839	7 192	7 271	7 361	1.2%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	168	179	184	185	187	190	1.6%
Residual fuel oil	456	488	519	435	391	360	-7.9%

 eurostat	IRELAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		7	7	6	6	5	-	
Non-ferrous metals		253	264	280	228	200	182	-9.0%
Chemical industry		109	128	124	132	132	140	6.1%
Non-met. mineral prod.		141	164	258	326	331	44	-86.7%
Food, drink, tobacco		158	167	175	164	159	159	0.0%
Pulp, paper and print		10	11	11	10	9	9	0.0%
Engineering & metal		67	72	76	69	67	69	3.0%
Other industries		52	53	57	57	56	53	-5.4%
<b>Transport</b>		3 200	3 574	3 893	4 155	4 262	4 303	1.0%
<i>among which:</i>								
Motor spirit		1 307	1 415	1 494	1 552	1 586	1 584	-0.1%
Jet fuel		436	515	597	717	761	744	-2.2%
Diesel oil		1 429	1 614	1 772	1 861	1 893	1 954	3.2%
<b>Services &amp; households etc.</b>		1 711	1 897	1 891	1 981	1 988	2 339	17.7%
<i>among which:</i>								
Gas oil		985	1 040	1 038	1 052	1 057	1 058	0.1%
Residual fuel oil		164	171	181	160	147	140	-4.8%
<b>Stocks at end of period</b>								
Crude oil and feedstocks		430	457	128	119	176	124	-29.5%
Petroleum products		940	994	1 212	1 525	1 403	1 123	-20.0%


## 5. Natural gas

 eurostat	IRELAND							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		65 448	51 329	44 581	30 639	31 519	25 293	-19.8%
Total imports		64 933	88 099	115 259	136 078	139 612	145 769	4.4%
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Gross inland consumption		130 381	139 428	159 840	166 717	171 131	171 062	0.0%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		62 693	70 200	84 880	86 131	89 627	109 383	22.0%
Inputs to heat plants		-	-	-	-	-	-	-
Consumption of energy branch		-	-	-	-	-	-	-
Distribution losses		1 480	2 012	1 306	2 174	2 195	2 253	2.6%
Non-energy use		21 370	19 029	17 804	20 996	16 354	6	-100.0%
Industry		18 610	18 815	21 867	20 490	27 404	20 310	-25.9%
<i>among which:</i>								
Iron&steel industry		838	964	838	33	32	44	37.5%
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		6 110	6 026	7 543	7 962	6 000	4 371	-27.2%
Non-met. mineral prod.		2 197	1 247	1 846	1 913	1 838	1 234	-32.9%
Food, drink, tobacco		7 046	5 796	7 465	7 331	14 005	9 039	-35.5%
Pulp, paper and print		-	-	-	-	-	-	-
Engineering & metal		-	-	-	-	-	-	-
Other industries		1 846	3 932	2 953	2 035	4 242	4 194	-1.1%
Transport		-	-	-	-	-	-	-
Services & households etc.		26 228	29 372	33 981	36 926	37 083	39 109	5.5%
<i>among which:</i>								
Households		15 718	17 959	20 365	22 367	22 077	25 021	13.3%
Services		10 510	11 413	13 616	14 559	15 006	14 088	-6.1%


## 6.1 Hard coal


 eurostat	IRELAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	2 860	2 384	2 631	2 919	2 803	2 485	-11.3%	
Total exports	5	5	3	3	5	2	-60.0%	
Stock changes	22	95	200	-13	-82	117	242.7%	
Gross inland consumption	2 877	2 474	2 828	2 903	2 716	2 600	-4.3%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	1 025	723	442	332	332	216	-34.9%	
Poland	248	254	172	264	227	249	9.7%	
CIS	-	-	-	-	-	-	-	
Australia	163	-	285	405	511	583	14.1%	
South Africa	217	117	409	-	300	786	162.0%	
Colombia	1 010	1 021	883	866	868	441	-49.2%	
<b>Consumption</b>								
Inputs to electricity plants	2 308	2 014	2 362	2 476	2 397	2 195	-8.4%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	121	100	78	76	61	62	1.6%	
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	-	-	-	-	-	-	-	
Non-met. mineral prod.	80	57	45	44	11	1	-90.9%	
Food, drink, tobacco	41	43	33	32	30	35	16.7%	
Pulp, paper and print	-	-	-	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	-	-	-	-	20	26	30.0%	
Services & households etc.	414	339	357	319	288	320	11.1%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	IRELAND						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	30	31	47	47	55	51	-7.3%
Lignite and peat	3 670	5 650	4 808	4 357	2 870	5 504	91.8%
Brown coal briquettes	264	330	274	269	273	279	2.2%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
<i>among which:</i>							
Iron & steel industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Patent Fuel	29	24	41	41	46	44	-4.3%
<i>among which:</i>							
Services & households	29	24	41	41	46	44	-4.3%
Lignite and peat	1 160	698	608	616	622	606	-2.6%
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	1 160	698	608	616	622	606	-2.6%
Brown coal briquettes	276	276	280	255	261	213	-18.4%
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	276	276	280	255	261	213	-18.4%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-


## 7. Renewable energy sources

	IRELAND							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	259	257	258	261	288	261	-9.4%	
Hydro (excl. pumping)	79	73	73	51	78	51	-34.4%	
Wind	15	16	21	29	33	39	17.0%	
Solar	0	0	0	0	0	0	28.6%	
Geothermal	0	0	0	0	0	0	-80.0%	
Biomass	166	167	164	180	176	170	-3.1%	
<i>among which:</i>								
Wood, wood-waste	131	131	136	152	152	145	-4.8%	
Municipal solid waste	-	-	-	-	-	-	-	
Biogas	35	37	28	28	23	25	8.0%	
Gross inland consumption	259	257	258	261	288	261	-9.4%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	-	-	-	-	-	-	-	
Biomass	30	32	24	24	19	19	-3.5%	
<i>among which:</i>								
Wood, wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	30	32	24	24	19	19	-3.5%	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	136	136	141	157	157	152	-3.1%	
<i>by sector:</i>								
Industry	92	92	100	113	113	106	-6.7%	
Services & households etc.	44	44	40	43	43	46	6.2%	
Transport	-	-	-	-	-	-	-	
<i>by source:</i>								
Biomass	135	135	140	156	156	152	-3.1%	
<i>among which:</i>								
Wood, wood-waste	131	131	136	152	152	145	-4.8%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	4	4	4	4	4	7	59.4%	
Geothermal	0	0	0	0	0	0	-80.0%	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	-	-	-	-	-	-	-	
Hydro with installed capacity < 1 MW	26	27	27	25	31	26	-16.1%	
Hydro with installed capacity > 1 & <10 MW	86	96	96	68	24	57	137.5%	
Hydro with installed capacity > 10 MW	809	723	723	503	857	515	-39.9%	
Wood, Wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	85	91	96	97	82	86	4.9%	

	IRELAND						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	8	7	7	10	9	11	22.2%
Hydro with installed capacity > 1 & <10 MW	47	27	27	27	7	23	228.6%
Hydro with installed capacity > 10 MW	182	199	199	199	222	206	-7.2%
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	12	15	15	15	19	15	-21.1%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	5	5	5	5	5	6	20.0%

# 1. Energy economy


## Key figures and energy indicators

		ITALIA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	30 100	28 939	26 780	25 580	26 206	27 228
Net energy imports		140 735	143 635	153 073	147 890	153 021	155 675
Net oil imports		90 434	87 311	88 578	84 670	86 478	85 166
Net gas imports		34 889	40 486	47 008	44 810	48 517	50 849
Gross inland energy consumption		168 576	170 938	172 477	172 734	173 550	182 007
Final energy consumption		118 451	123 073	123 005	125 625	125 163	130 200
Industry		35 774	38 198	39 240	39 272	39 529	40 660
Transport		40 921	41 440	41 263	41 895	42 382	42 993
Services and households etc.		41 756	43 435	42 503	44 458	43 252	46 547
Gross electricity generation	GWh	259 054	264 994	276 623	278 995	284 401	293 865
Final electricity consumption		254 747	261 030	272 547	277 328	282 305	290 964
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	880 925	895 581	922 691	938 969	942 568	944 965
Population	1000 per.	56 908	56 914	56 930	56 968	56 994	57 321
Industry added value	Mio EUR	243 832	244 835	250 996	251 806	252 329	251 333
Total imports (current prices)	Mio EUR	230 232	243 017	260 350	261 604	260 393	263 776
among which:							
All energy commodities		10 739	13 332	24 993	24 206	23 230	23 600
Oil products		9 473	11 944	23 293	20 627	19 629	20 060
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	191.4	190.9	186.9	184.0	184.1	192.6
Final energy consumption / GDP(95)		134.5	137.4	133.3	133.8	132.8	137.8
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		146.7	156.0	156.3	156.0	156.7	161.8
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		19.2	19.1	18.6	19.0	18.8	22.2
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 962	3 003	3 030	3 032	3 045	3 175
Final energy consumption / capita		2 081	2 162	2 161	2 205	2 196	2 271
Household consumption / capita		489	518	498	520	499	513
Electricity consumption / capita	kWh/cap.	4 444	4 489	4 734	4 779	5 024	5 218
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	82.2	82.9	87.4	84.2	86.7	84.1
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	70.3	72.0	71.3	72.7	72.1	71.5
Efficiency of thermal power stations		40.1	40.0	40.4	41.8	41.3	39.8



## 2. Energy balance

### Principal aggregates by product

 eurostat	ITALIA						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	30 100	28 939	26 780	25 580	26 206	27 228	3.9%
<i>among which:</i> Hard coal	-	-	-	-	104	159	53.4%
Lignite and peat	48	29	4	-	-	-	-
Crude oil	5 671	5 028	4 606	4 117	5 566	5 609	0.8%
Natural Gas	15 568	14 313	13 622	12 483	11 976	11 372	-5.0%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	3 544	3 901	3 812	4 025	3 398	2 905	-14.5%
Biomass	1 401	1 624	1 572	1 653	1 566	2 237	42.9%
<b>Imports</b>							
Total	163 891	164 183	174 812	170 495	174 766	179 732	2.8%
<i>among which:</i> Hard coal	11 262	11 766	12 926	13 362	12 739	13 634	7.0%
Crude oil and feedstocks	92 765	88 525	90 892	91 787	90 505	92 511	2.2%
Petroleum products	20 644	19 161	19 255	15 332	17 507	16 506	-5.7%
Natural Gas	34 927	40 528	47 049	44 861	48 560	50 896	4.8%
Electricity	3 580	3 658	3 855	4 207	4 430	4 427	-0.1%
<b>Exports</b>							
Total	23 156	20 548	21 739	22 605	21 744	24 057	10.6%
<i>among which:</i> Crude oil and feedstocks	414	280	529	614	402	1 124	179.7%
Petroleum products	22 562	20 095	21 041	21 835	21 131	22 726	7.5%
Natural gas	38	42	41	51	43	48	11.6%
Electricity	77	45	42	47	79	45	-43.8%
<b>Gross inland consumption</b>							
Total	168 576	170 938	172 477	172 734	173 550	182 007	4.9%
<i>among which:</i> Solid fuels	11 748	11 792	12 659	13 513	13 717	14 923	8.8%
Crude oil and petrol. prod.	92 920	89 874	88 898	87 253	88 325	88 425	0.1%
Natural gas	51 126	55 569	57 940	58 099	57 705	63 353	9.8%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	9 175	9 941	9 034	9 514	9 126	10 769	18.0%
<b>Transformation input</b>							
Total	153 437	147 833	150 781	149 600	152 041	157 735	3.7%
<i>among which:</i> Crude oil and feedstocks	101 652	96 035	96 874	97 965	98 041	99 588	1.6%
Petroleum products	21 930	18 993	18 960	16 516	17 517	16 359	-6.6%
Hard coal	9 920	9 930	10 595	11 628	11 928	12 523	5.0%
Lignite and peat	64	54	68	1	-	1	-
Renewables	244	324	337	410	498	1 368	174.7%
<b>Transformation output</b>							
Total	124 606	118 568	119 709	120 900	121 146	123 804	2.2%
<i>among which:</i> Electricity	18 245	18 356	19 361	19 251	20 270	21 335	5.3%
Heat	-	-	-	-	-	-	-

**Final energy consumption**

Total	118 451	123 073	123 005	125 625	125 163	130 200	4.0%
<i>among which:</i> Solid fuels	3 768	3 697	3 478	3 457	3 862	3 833	-0.7%
Petroleum products	54 563	57 204	56 146	57 457	57 239	58 789	2.7%
Natural Gas	36 219	37 665	37 611	38 749	37 840	40 696	7.5%
Renewables	1 337	1 439	1 721	1 777	1 633	1 550	-5.1%
Electricity	21 904	22 445	23 435	23 846	24 274	25 018	3.1%

**Final energy consumption by sector**
**Industry**

Total	35 774	38 198	39 240	39 272	39 529	40 660	2.9%
<i>among which:</i> Solid fuels	3 700	3 631	3 415	3 384	3 845	3 816	-0.8%
Petroleum Products	5 185	6 595	6 409	6 596	6 494	7 302	12.4%
Natural Gas	15 343	15 864	16 625	16 653	16 589	16 851	1.6%
Renewables	188	202	207	215	208	191	-8.1%
Electricity	10 924	11 509	12 197	12 313	12 305	12 413	0.9%


**Transport**

Total	40 921	41 440	41 263	41 895	42 382	42 993	1.4%
<i>among which:</i> Motor spirit	18 790	18 469	17 534	17 192	16 807	16 198	-3.6%
Diesel oil	16 305	16 952	17 654	18 712	19 854	20 733	4.4%
Jet fuel	3 173	3 555	3 491	3 393	3 184	3 597	13.0%
Electricity	676	678	695	703	733	773	5.5%


**Services&households**

Total	41 756	43 435	42 503	44 458	43 252	46 547	7.6%
<i>among which:</i> Solid fuels	67	65	63	73	16	16	0.0%
Gas oil	7 235	7 202	6 771	7 271	6 770	6 857	1.3%
Natural Gas	20 590	21 513	20 659	21 729	20 889	23 481	12.4%
Renewables	1 149	1 237	1 514	1 562	1 426	1 359	-4.6%
Electricity	10 304	10 258	10 543	10 830	11 236	11 832	5.3%
Heat	-	-	-	-	-	-	-


### 3.1 Electricity balance

 eurostat	ITALIA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	259 054	264 994	276 623	278 995	284 401	293 865	3.3%
<i>among which:</i>							
Hydro	47 365	51 777	50 900	53 926	47 262	44 277	-6.3%
Wind	232	403	563	1 179	1 404	1 458	3.8%
Geothermal	4 214	4 403	4 705	4 507	4 662	5 341	14.6%
Nuclear	-	-	-	-	-	-	-
Conventional thermal	207 243	208 411	220 455	219 383	231 073	242 789	5.1%
<i>of which:</i>							
Hard coal	22 987	23 551	25 990	31 727	35 447	38 813	9.5%
Lignite and peat	324	261	282	3	-	-	-
Petroleum products	107 305	91 379	85 878	75 008	87 767	75 986	-13.4%
Natural gas	70 883	86 983	101 360	95 906	99 414	117 300	18.0%
Derived gases	4 516	4 413	4 252	5 045	5 021	5 304	5.6%
Biomass	1 228	1 824	1 591	2 586	2 371	3 456	45.8%
Industrial wastes	-	-	1 102	9 108	1 053	1 930	83.3%
Total net generation	246 264	252 109	263 623	265 965	270 782	280 783	3.7%
<b>Imports and exports</b>							
Total imports	41 633	42 538	44 831	48 927	51 519	51 486	-0.1%
Total exports	901	528	484	549	922	518	-43.8%
<b>Consumption and losses</b>							
Consumption of the energy branch	21 119	21 665	22 674	23 589	25 184	22 507	-10.6%
<i>of which:</i>							
Consumption for pumped-storage	2 213	2 491	2 566	2 396	2 911	3 093p	6.3%
Network losses	18 508	18 560	19 191	19 340	19 766	20 870	5.6%
Final energy consumption	254 747	261 030	272 547	277 328	282 305	290 964	3.1%
<i>of which:</i>							
Industry	127 048	133 847	141 847	143 205	143 107	144 368	0.9%
<i>among which:</i>							
Iron&steel industry	18 823	18 355	20 346	20 846	19 966	19 887	-0.4%
Non-ferrous metals	5 441	5 234	5 526	5 714	5 619	5 464	-2.8%
Chemical industry	20 394	20 864	21 946	21 224	20 236	20 110	-0.6%
Non-met. mineral prod.	12 591	13 025	13 698	13 931	14 312	14 543	1.6%
Food, drink, tobacco	10 710	11 172	11 644	12 044	12 360	12 535	1.4%
Pulp, paper and print	9 266	9 649	10 100	10 258	10 480	10 787	2.9%
Engineering & metal	23 185	23 713	25 162	25 369	26 064	26 736	2.6%
Other industries	14 366	19 945	20 919	21 207	21 970	22 709	3.4%
Transport	7 861	7 886	8 086	8 171	8 521	8 992	5.5%
Services & households etc.	119 838	119 297	122 614	125 952	130 677	137 604	5.3%
<i>among which:</i>							
Households	59 275	60 717	61 112	61 553	62 957	65 016	3.3%


## 3.2 Electrical capacity, fuel inputs and heat


		ITALIA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	72 352	73 684	75 334	76 233	79 744	78 249	-1.9%
<i>by source:</i>								
Conventional thermal		51 583	52 426	54 035	54 477	54 521	56 053	2.8%
<i>of which:</i>								
Steam		40 745	40 728	40 048	39 111	38 126	36 754	-3.6%
Gas turbine		5 623	6 027	5 314	5 371	5 088	5 101	0.3%
Combined cycle		4 554	4 924	7 839	8 978	10 308	13 051	26.6%
Internal combustion		651	747	833	850	911	955	4.8%
Nuclear		-	-	-	-	-	-	-
Hydro		20 058	20 444	20 346	20 519	23 777	20 660	-13.1%
<i>among which:</i>								
Pumped storage		7 000	7 027	6 957	7 063	6 957	6 957	0.0%
Wind		164	229	363	664	780	870	11.5%
Geothermal		547	585	590	573	666	666	0.0%
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		60 533	61 252	75 493	76 233	79 744	78 249	-1.9%
Autoproducers		11 983	12 596	409	-	-	-	-
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	45 535	45 852	47 893	46 058	49 117	53 571	9.1%
<i>among which:</i>								
Hard coal		4 929	5 139	5 768	6 985	7 954	8 874	11.6%
Lignite and peat		64	54	68	1	-	1	
Petroleum products		21 925	18 989	18 955	16 512	17 517	16 359	-6.6%
Natural gas		13 533	16 355	18 689	17 911	18 491	21 086	14.0%
Renewables		3 868	4 110	3 227	3 381	3 745	5 960	59.2%
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	-	-	-	-	-	-	-
<i>among which: in heating plants</i>								
Heat consumption		-	-	-	-	-	-	-
<i>of which: in industry</i>								
in households and services		-	-	-	-	-	-	-
<i>among which: in households</i>								
		-	-	-	-	-	-	-

## 4.1 Crude oil and feedstocks


 eurostat	in 1 000 t	ITALIA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		5 622	4 998	4 585	4 097	5 535	5 570	0.6%
Total imports		91 925	87 931	90 403	91 250	89 910	91 807	2.1%
Total exports		408	276	521	605	396	1 113	181.1%
Stock changes		-88	103	-758	196	-158	90	157.0%
Refinery intake		100 709	95 381	96 336	97 381	97 385	98 819	1.5%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		60 348	52 227	55 055	48 894	44 638	51 278	14.9%
Near and Middle East		34 362	31 290	30 656	29 017	25 588	26 931	5.2%
Africa		35 738	29 525	32 189	30 665	31 025	31 522	1.6%
<i>by country of origin:</i>								
Algeria		1 685	2 011	3 190	2 765	2 591	3 466	33.8%
Nigeria		1 669	1 262	1 142	1 752	1 318	1 717	30.3%
Saudi Arabia		12 496	8 343	8 407	8 933	8 457	10 564	24.9%
Kuwait		-	128	1 574	653	55	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		3 746	4 259	3 650	2 927	5 409	4 692	-13.3%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	115 500	115 500	115 500	:	:	:	
<i>among which:</i>								
Cracking and others		57 040	58 040	60 470	:	:	:	
Reforming		13 880	13 950	13 450	:	:	:	

## 4.2 Petroleum products

 eurostat	ITALIA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	99 797	94 222	95 074	96 535	96 233	97 840	1.7%
<i>among which:</i>							
Motor spirit	21 348	20 182	19 494	21 093	20 810	20 705	-0.5%
Kerosene and jet fuel	5 344	4 847	4 476	4 071	4 306	4 517	4.9%
Naphtha	5 132	3 483	2 998	2 203	2 423	3 615	49.2%
Gas/diesel oil	36 272	34 527	36 487	37 076	38 993	38 389	-1.5%
Residual fuel oil	20 486	19 409	19 455	19 295	17 190	18 018	4.8%
Total imports	21 629	19 957	20 079	15 996	18 316	17 568	-4.1%
Total exports	22 476	20 078	21 050	21 816	21 065	22 713	7.8%
Bunkers	2 700	2 485	2 785	2 900	3 080	3 310	7.5%
Stock changes	-505	-91	-1 038	1 077	-555	737	232.8%
Gross inland consumption	-4 052	-2 697	-4 794	-7 643	-6 384	-7 718	-20.9%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	404	300	372	236	358	149	-58.4%
United Kingdom	2 597	1 522	1 696	1 452	1 381	1 384	0.2%
Norway	934	399	167	246	188	231	22.9%
OPEC	6 729	8 068	10 104	5 946	7 653	7 589	-0.8%
Imports by product							
<i>among which:</i>							
Motor spirit	898	726	598	615	572	430	-24.8%
Kerosene and jet fuel	37	417	317	338	198	204	3.0%
Gas/diesel oil	732	1 047	893	748	1 014	724	-28.6%
Residual fuel oil	14 349	11 911	11 744	7 690	10 774	9 873	-8.4%
Exports by product							
<i>among which:</i>							
Motor spirit	2 759	2 729	3 985	4 279	4 807	5 197	8.1%
Kerosene and jet fuel	982	1 093	830	638	971	761	-21.6%
Gas/diesel oil	11 249	8 930	8 586	9 881	9 479	9 611	1.4%
Residual fuel oil	5 117	4 524	4 709	3 516	2 459	3 372	37.1%
<b>Consumption</b>							
Inputs to electricity plants	22 903	19 797	19 636	17 230	18 285	17 072	-6.6%
Inputs to heating plants	-	-	-	-	-	-	-
Non-energy use	9 807	9 634	10 175	9 605	9 698	9 650	-0.5%
Final energy consumption	53 655	56 329	55 338	56 559	56 463	58 187	3.1%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	424	408	418	435	440	596	35.5%
Residual fuel oil	2 963	4 184	3 763	3 482	3 379	3 660	8.3%


 eurostat	ITALIA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>							
<i>among which by sector:</i>							
Iron&steel industry	88	97	99	121	112	117	4.5%
Non-ferrous metals	120	89	86	87	82	89	8.5%
Chemical industry	601	1 226	1 038	1 388	998	1 187	18.9%
Non-met. mineral prod.	1 985	3 321	3 513	2 948	3 066	3 743	22.1%
Food, drink, tobacco	335	731	628	672	798	838	5.0%
Pulp, paper and print	76	181	160	192	190	202	6.3%
Engineering & metal	636	792	713	771	785	803	2.3%
Other industries	1 508	441	424	604	676	666	-1.5%
<b>Transport</b>	38 647	39 178	38 979	39 574	40 057	40 645	1.5%
<i>among which:</i>							
Motor spirit	17 880	17 574	16 684	16 359	15 993	15 413	-3.6%
Jet fuel	3 089	3 461	3 399	3 304	3 100	3 502	13.0%
Diesel oil	16 138	16 779	17 474	18 521	19 651	20 521	4.4%
<b>Services &amp; households etc.</b>	9 190	9 856	9 231	9 771	9 201	9 367	1.8%
<i>among which:</i>							
Gas oil	7 161	7 128	6 702	7 197	6 701	6 787	1.3%
Residual fuel oil	253	378	330	350	335	328	-2.1%
<b>Stocks at end of period</b>							
Crude oil and feedstocks	5 359	5 257	5 828	5 508	5 667	5 577	-1.6%
Petroleum products	14 581	14 672	15 193	14 710	15 001	14 264	-4.9%

## 5. Natural gas


 eurostat	ITALIA							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		724 243	665 836	633 716	580 723	557 137	529 017	-5.0%
Total imports		1 624 813	1 885 340	2 188 731	2 086 927	2 258 988	2 367 686	4.8%
Total exports		1 791	1 943	1 907	2 365	1 981	2 210	11.6%
Stock changes		31 128	35 814	-125 158	37 490	-129 692	52 693	140.6%
Gross inland consumption		2 378 393	2 585 047	2 695 382	2 702 775	2 684 452	2 947 186	9.8%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		636 003	727 443	801 548	746 531	714 642	740 131	3.6%
Algeria		869 442	1 021 156	1 071 372	930 135	867 423	896 150	3.3%
Norway		-	-	-	46 520	192 329	284 759	48.1%
<b>Consumption</b>								
Inputs to electricity plants		629 550	760 857	869 419	833 212	860 186	980 929	14.0%
Inputs to heat plants		-	-	-	-	-	-	-
Consumption of energy branch		15 545	15 429	18 141	11 832	15 725	15 730	0.0%
Distribution losses		5 043	12 534	12 690	8 894	5 412	14 099	160.5%
Non-energy use		43 351	44 034	45 453	46 215	42 824	43 245	1.0%
Industry		713 754	737 985	773 402	774 687	771 718	783 903	1.6%
<i>among which:</i>								
Iron&steel industry		80 389	73 835	87 099	87 249	87 709	89 117	1.6%
Non-ferrous metals		16 108	16 718	17 452	17 488	17 757	18 020	1.5%
Chemical industry		129 198	148 322	139 903	140 132	134 911	137 045	1.6%
Non-met. mineral prod.		153 725	155 901	166 763	167 259	166 268	168 896	1.6%
Food, drink, tobacco		79 350	83 617	85 459	85 496	85 229	86 563	1.6%
Pulp, paper and print		69 070	72 007	75 096	74 981	75 974	77 151	1.5%
Engineering & metal		93 407	92 377	101 919	102 146	102 145	103 784	1.6%
Other industries		34 683	37 384	37 569	37 643	38 862	39 472	1.6%
Transport		13 287	13 402	15 202	17 107	16 843	16 953	0.7%
Services & households etc.		957 867	1 000 806	961 076	1 010 830	971 744	1 092 327	12.4%
<i>among which:</i>								
Households		694 100	725 309	696 429	732 522	711 797	796 328	11.9%
Services		258 331	269 946	259 198	272 631	254 345	289 824	13.9%




## 6.1 Hard coal


 eurostat	ITALIA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	163	250	53.4%	
Total imports	16 568	17 309	19 015	19 657	19 211	20 562	7.0%	
Total exports	-	-	2	-	-	-	-	
Stock changes	420	-240	-1 000	-232	624	334	-46.5%	
Gross inland consumption	16 988	17 069	18 013	19 425	19 998	21 146	5.7%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	4 825	3 653	3 285	5 142	2 934	2 468	-15.9%	
Poland	136	621	912	234	555	-	-	
CIS	126	894	1 049	868	1 453	1 087	-25.2%	
Australia	3 080	3 299	3 604	2 684	2 416	2 874	19.0%	
South Africa	3 946	3 785	3 722	4 639	3 871	4 765	23.1%	
Colombia	2 343	1 362	1 759	1 451	1 950	-	-	
<b>Consumption</b>								
Inputs to electricity plants	8 004	8 404	9 433	11 219	12 749	14 251	11.8%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	3	3	49	67	113	60	-46.9%	
Industry								
<i>among which:</i>								
Iron&steel industry	1 198	1 135	1 231	1 139	1 992	1 223	-38.6%	
Non-ferrous metals	47	40	34	28	2	1	-50.0%	
Chemical industry	-	-	3	3	3	2	-33.3%	
Non-met. mineral prod.	721	754	537	547	487	770	58.1%	
Food, drink, tobacco	-	-	-	-	-	-	-	
Pulp, paper and print	4	4	4	2	2	-	-	
Engineering & metal	35	33	31	29	2	-	-	
Other industries	-	1	3	2	2	-	-	
Services & households etc.	3	3	3	3	1	1	0.0%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	ITALIA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	5 192	4 990	4 504	4 829	4 065	3 827	-5.9%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	189	115	14	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	38 564	36 242	22 020	14 465	14 213	15 111	6.3%
Blast-furnace gas	52 503	48 154	49 540	38 893	38 077	38 859	2.1%
Gasworks gas	203	203	185	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	3 517	3 451	3 253	3 323	3 345	3 765	12.6%
<i>among which:</i>							
Iron & steel industry	2 958	2 955	2 757	2 992	3 090	3 692	19.5%
Services & households	96	93	90	104	23	23	0.0%
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	12	18	26	8	9	7	-22.2%
<i>among which:</i>							
Industry	12	18	26	8	9	7	-22.2%
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	8 456	8 600	7 388	430	433	313	-27.7%
Blast-furnace gas	7 940	6 248	6 950	1 666	668	714	6.9%
Gasworks gas	203	198	183	-	-	-	-
Inputs to electricity plants	50 604	48 091	47 980	48 806	49 293	51 616	4.7%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	23 107	20 993	9 052	2 456	1 793	1 240	-30.8%
Consumption in industry	16 396	14 848	14 338	2 096	1 101	1 027	-6.7%


## 7. Renewable energy sources

		ITALIA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	8 813	9 569	8 548	8 979	8 560	10 088	17.9%
Hydro (excl. pumping)		3 544	3 901	3 812	4 025	3 398	2 905	-14.5%
Wind		20	35	48	101	121	125	3.8%
Solar		11	11	12	12	11	11	-0.8%
Geothermal		3 836	3 999	3 103	3 188	3 464	4 810	38.8%
Biomass		1 401	1 624	1 572	1 653	1 566	2 237	42.9%
	<i>among which:</i>							
Wood, wood-waste		987	1 104	1 109	1 102	930	1 153	23.9%
Municipal solid waste		273	374	334	397	426	829	94.5%
Biogas		142	145	129	153	209	255	22.0%
Gross inland consumption		9 175	9 941	9 034	9 514	9 126	10 769	18.0%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		3 623	3 786	2 890	2 971	3 247	4 592	41.4%
Biomass		244	324	337	410	498	1 368	174.7%
	<i>among which:</i>							
Wood, wood-waste		12	38	37	-	-	421	
Municipal waste		106	141	172	257	289	692	139.4%
Biogas		126	145	129	153	209	255	22.0%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	1 559	1 662	1 945	2 005	1 861	1 778	-4.5%
	<i>by sector:</i>							
Industry		188	202	207	215	208	191	-8.1%
Services & households etc.		1 371	1 459	1 738	1 790	1 653	1 587	-4.0%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		1 337	1 439	1 721	1 777	1 633	1 550	-5.1%
	<i>among which:</i>							
Wood, wood-waste		1 337	1 439	1 559	1 637	1 496	1 413	-5.6%
Municipal waste		-	-	162	141	137	137	0.0%
Biogas		-	-	-	-	-	-	-
Geothermal		213	213	213	217	217	217	0.0%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		16	17	18	5	4	5	25.0%
Hydro with installed capacity < 1 MW		1 718	1 762	1 550	1 668	1 604	1 455	-9.3%
Hydro with installed capacity > 1 & <10 MW		6 602	6 840	6 567	6 989	6 444	5 736	-11.0%
Hydro with installed capacity > 10 MW		32 893	36 756	36 088	38 154	31 472	29 483	-6.3%
Wood, Wood-waste		271	586	221	-	-	611	
Municipal waste		464	653	804	1 258	1 428	1 812	26.9%
Biogas		494	580	566	684	943	1 033	9.5%

	ITALIA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	18	18	19	20	6	7	16.7%
Hydro with installed capacity < 1 MW	406	414	300	384	398	407	2.3%
Hydro with installed capacity > 1 & <10 MW	1 804	1 787	1 468	1 849	1 892	1 924	1.7%
Hydro with installed capacity > 10 MW	14 028	14 370	11 621	11 223	14 530	14 639	0.8%
Wood, Wood-waste	154	180	180	180	155	383	147.1%
Municipal waste	167	168	219	222	224	446	99.1%
Biogas	124	141	179	198	224	257	14.7%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	240	240	240	240	240	240	0.0%

# 1. Energy economy

## Key figures and energy indicators

		KYPROS/KIBRIS					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	43	44	45	44	45	37
Net energy imports		2 338	2 427	2 537	2 496	2 569	2 645
Net oil imports		2 321	2 407	2 502	2 455	2 524	2 608
Net gas imports		-	-	-	-	-	-
Gross inland energy consumption		2 314	2 265	2 382	2 409	2 420	2 547
Final energy consumption		1 531	1 575	1 634	1 689	1 700	1 792
Industry		415	427	437	409	421	440
Transport		809	830	852	927	897	953
Services and households etc.		306	318	345	353	382	399
Gross electricity generation	GWh	2 954	3 139	3 370	3 551	3 785	4 044
Final electricity consumption		2 615	2 768	2 996	3 110	3 385	3 637
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	7 423	7 773	8 161	8 486	8 656	8 829
Population	1000 per.	675	683	691	698	706	715
Industry added value	Mio EUR	1 531	1 543	1 563	1 593	1 656	1 723
Total imports (current prices)	Mio EUR	3 943	4 059	4 581	4 797	4 772	4 754
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	311.7	291.4	291.9	283.9	279.6	288.5
Final energy consumption / GDP(95)		206.2	202.6	200.2	199.0	196.4	203.0
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		271.2	276.5	279.5	256.7	254.3	255.6
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		18.9	19.3	19.5	20.3	21.7	22.3
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 427	3 317	3 449	3 454	3 431	3 562
Final energy consumption / capita		2 267	2 306	2 366	2 421	2 409	2 506
Household consumption / capita		292	294	316	310	331	341
Electricity consumption / capita	kWh/cap.	4 375	4 597	4 881	5 091	5 365	5 655
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	97.0	100.5	98.7	96.1	100.5	99.1
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	66.2	69.5	68.6	70.1	70.2	70.4
Efficiency of thermal power stations		32.3	32.2	33.6	35.7	36.6	36.2

## 2. Energy balance

### Principal aggregates by product

eurostat	KYPROS/KIBRIS						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	43	44	45	44	45	37	-17.2%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	-	-	-	-	-	-	-
Biomass	9	9	9	9	10	1	-90.7%
<b>Imports</b>							
Total	2 338	2 427	2 537	2 496	2 569	2 645	3.0%
<i>among which:</i> Hard coal	14	17	33	38	42	33	-20.1%
Crude oil and feedstocks	1 169	1 180	1 149	1 148	1 071	962	-10.2%
Petroleum products	1 152	1 227	1 353	1 307	1 454	1 647	13.3%
Natural Gas	-	-	-	-	-	-	-
Electricity	-	-	-	-	-	-	-
<b>Exports</b>							
Total	-	-	-	-	-	-	-
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-
Electricity	-	-	-	-	-	-	-
<b>Gross inland consumption</b>							
Total	2 314	2 265	2 382	2 409	2 420	2 547	5.2%
<i>among which:</i> Solid fuels	20	23	35	37	37	38	1.4%
Crude oil and petrol. prod.	2 251	2 198	2 302	2 329	2 339	2 472	5.7%
Natural gas	-	-	-	-	-	-	-
Nuclear Energy	-	-	-	-	-	-	-
Renewables	43	44	45	44	45	37	-17.2%
<b>Transformation input</b>							
Total	1 863	2 013	2 029	2 004	1 969	1 924	-2.3%
<i>among which:</i> Crude oil and feedstocks	1 077	1 174	1 167	1 150	1 079	963	-10.7%
Petroleum products	787	839	862	854	890	960	7.8%
Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
<b>Transformation output</b>							
Total	1 325	1 443	1 456	1 450	1 400	1 324	-5.4%
<i>among which:</i> Electricity	254	270	290	305	325	348	6.8%
Heat	-	-	-	-	-	-	-



in 1 000 toe

## KYPROS/KIBRIS

1998 1999 2000 2001 2002 2003 03/02

### Final energy consumption

Total	1 531	1 575	1 634	1 689	1 700	1 792	5.5%
<i>among which:</i> Solid fuels	20	22	35	37	36	38	3.1%
Petroleum products	1 243	1 270	1 296	1 341	1 327	1 405	5.8%
Natural Gas	-	-	-	-	-	-	-
Renewables	9	9	9	9	10	1	-90.7%
Electricity	225	238	258	267	291	313	7.4%

### Final energy consumption by sector

#### Industry

Total	415	427	437	409	421	440	4.6%
<i>among which:</i> Solid fuels	20	22	35	37	36	38	3.1%
Petroleum Products	359	367	364	333	344	359	4.5%
Natural Gas	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
Electricity	36	37	38	39	41	44	7.0%


#### Transport

Total	809	830	852	927	897	953	6.3%
<i>among which:</i> Motor spirit	205	213	216	230	241	265	10.0%
Diesel oil	337	344	344	372	344	354	2.9%
Jet fuel	265	271	290	322	310	332	7.0%
Electricity	2	2	2	2	2	3	15.4%

#### Services&households


Total	306	318	345	353	382	399	4.5%
<i>among which:</i> Solid fuels	-	-	-	-	-	-	-
Gas oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Renewables	9	9	9	9	10	1	-90.7%
Electricity	187	199	217	227	248	267	7.5%
Heat	-	-	-	-	-	-	-

### 3.1 Electricity balance


 eurostat	KYPROS/KIBRIS								
	in GWh		1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>									
Total gross generation		2 954	3 139	3 370	3 551	3 785	4 044	6.8%	
<i>among which:</i>									
Hydro		-	-	-	-	-	-	-	
Wind		-	-	-	-	-	-	-	
Geothermal		-	-	-	-	-	-	-	
Nuclear		-	-	-	-	-	-	-	
Conventional thermal		2 954	3 139	3 370	3 551	3 785	4 044	6.8%	
<i>of which:</i>									
Hard coal		-	-	-	-	-	-	-	
Lignite and peat		-	-	-	-	-	-	-	
Petroleum products		2 954	3 139	3 370	3 551	3 785	4 044	6.8%	
Natural gas		-	-	-	-	-	-	-	
Derived gases		-	-	-	-	-	-	-	
Biomass		-	-	-	-	-	-	-	
Industrial wastes		-	-	-	-	-	-	-	
Total net generation		2 811	2 986	3 205	3 364	3 574	3 822	6.9%	
<b>Imports and exports</b>									
Total imports		-	-	-	-	-	-	-	
Total exports		-	-	-	-	-	-	-	
<b>Consumption and losses</b>									
Consumption of the energy branch		163	175	186	208	233	248	6.4%	
<i>of which:</i>									
Consumption for pumped-storage		-	-	-	-	-	-	-	
Network losses		176	196	188	233	167	159	-4.8%	
Final energy consumption		2 615	2 768	2 996	3 110	3 385	3 637	7.4%	
<i>of which:</i>									
Industry		421	427	446	451	474	507	7.0%	
<i>among which:</i>									
Iron&steel industry		-	-	-	-	-	-	-	
Non-ferrous metals		-	-	-	-	-	-	-	
Chemical industry		12	12	16	19	19	20	5.3%	
Non-met. mineral prod.		181	168	185	183	186	200	7.5%	
Food, drink, tobacco		113	121	127	132	147	159	8.2%	
Pulp, paper and print		13	14	15	16	16	17	6.3%	
Engineering & metal		22	23	24	24	25	24	-4.0%	
Other industries		52	64	55	53	56	61	8.9%	
Transport		24	21	22	24	26	30	15.4%	
Services & households etc.		2 170	2 320	2 528	2 635	2 885	3 100	7.5%	
<i>among which:</i>									
Households		904	952	1 055	1 042	1 157	1 294	11.8%	




## 3.2 Electrical capacity, fuel inputs and heat


 eurostat	KYPROS/KIBRIS							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	699	737	1 004	1 004	1 004	1 012	0.8%
<i>by source:</i>								
Conventional thermal		699	737	1 004	1 004	1 004	1 012	0.8%
<i>of which:</i>								
Steam		540	540	800	800	800	800	0.0%
Gas turbine		150	188	188	188	188	188	0.0%
Combined cycle		-	-	-	-	-	-	-
Internal combustion		-	-	-	-	-	-	-
Nuclear		-	-	-	-	-	-	-
Hydro		-	-	-	-	-	-	-
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		690	728	988	988	988	988	0.0%
Autoproducers		10	10	17	17	17	25	47.1%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	787	839	862	854	890	960	7.8%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		787	839	862	854	890	960	7.8%
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	-	-	-	-	-	-	-
<i>among which: in heating plants</i>								
		-	-	-	-	-	-	-
Heat consumption		-	-	-	-	-	-	-
<i>of which: in industry</i>								
		-	-	-	-	-	-	-
<i>in households and services</i>								
		-	-	-	-	-	-	-
<i>among which: in households</i>								
		-	-	-	-	-	-	-

## 4.1 Crude oil and feedstocks


 eurostat	in 1 000 t	KYPROS/KIBRIS						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		1 175	1 186	1 155	1 154	1 078	967	-10.3%
Total exports		-	-	-	-	-	-	-
Stock changes		7	-6	18	2	8	2	-75.0%
Refinery intake		1 082	1 180	1 173	1 156	1 086	969	-10.8%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	KYPROS/KIBRIS						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	1 076	1 179	1 172	1 151	1 082	982	-9.2%
<i>among which:</i>							
Motor spirit	142	148	153	150	153	147	-3.9%
Kerosene and jet fuel	27	34	37	37	36	39	8.3%
Naphtha	-	-	-	-	-	-	-
Gas/diesel oil	382	411	406	390	362	327	-9.7%
Residual fuel oil	442	495	491	482	423	373	-11.8%
Total imports	1 199	1 281	1 417	1 344	1 520	1 696	11.6%
Total exports	-	-	-	-	-	-	-
Bunkers	99	155	194	193	139	125	-10.1%
Stock changes	24	-52	-39	69	-72	-12	83.3%
Gross inland consumption	1 124	1 074	1 184	1 220	1 309	1 559	19.1%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-
Imports by product							
<i>among which:</i>							
Motor spirit	51	57	62	84	78	110	41.0%
Kerosene and jet fuel	260	264	273	314	295	323	9.5%
Gas/diesel oil	175	165	194	198	194	252	29.9%
Residual fuel oil	515	586	637	585	690	821	19.0%
Exports by product							
<i>among which:</i>							
Motor spirit	-	-	-	-	-	-	-
Kerosene and jet fuel	-	-	-	-	-	-	-
Gas/diesel oil	-	-	-	-	-	-	-
Residual fuel oil	-	-	-	-	-	-	-
<b>Consumption</b>							
Inputs to electricity plants	823	877	902	894	932	1 005	7.8%
Inputs to heating plants	-	-	-	-	-	-	-
Non-energy use	82	94	90	89	92	78	-15.2%
Final energy consumption	1 256	1 283	1 305	1 345	1 333	1 410	5.8%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	180	185	191	180	186	191	2.7%
Residual fuel oil	68	68	68	54	55	62	12.7%

 eurostat	KYPROS/KIBRIS							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		-	-	-	-	-	-	-
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		-	-	-	-	-	-	-
Non-met. mineral prod.		218	222	209	187	193	200	3.6%
Food, drink, tobacco		-	-	-	-	-	-	-
Pulp, paper and print		-	-	-	-	-	-	-
Engineering & metal		-	-	-	-	-	-	-
Other industries		180	185	185	180	186	191	2.7%
<b>Transport</b>		787	807	828	901	871	925	6.2%
<i>among which:</i>								
Motor spirit		195	203	206	219	229	252	10.0%
Jet fuel		258	264	282	314	302	323	7.0%
Diesel oil		334	340	340	368	340	350	2.9%
<b>Services &amp; households etc.</b>		71	69	77	77	83	89	7.2%
<i>among which:</i>								
Gas oil		-	-	-	-	-	-	-
Residual fuel oil		-	-	-	-	-	-	-
<b>Stocks at end of period</b>								
Crude oil and feedstocks		59	65	47	45	37	35	-5.4%
Petroleum products		-	-	-	-	-	-	-


## 5. Natural gas

 eurostat	in TJ (GCV)	KYPROS/KIBRIS						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		-	-	-	-	-	-	-
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Gross inland consumption		-	-	-	-	-	-	-
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		-	-	-	-	-	-	-
Inputs to heat plants		-	-	-	-	-	-	-
Consumption of energy branch		-	-	-	-	-	-	-
Distribution losses		-	-	-	-	-	-	-
Non-energy use		-	-	-	-	-	-	-
Industry		-	-	-	-	-	-	-
<i>among which:</i>								
Iron&steel industry		-	-	-	-	-	-	-
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		-	-	-	-	-	-	-
Non-met. mineral prod.		-	-	-	-	-	-	-
Food, drink, tobacco		-	-	-	-	-	-	-
Pulp, paper and print		-	-	-	-	-	-	-
Engineering & metal		-	-	-	-	-	-	-
Other industries		-	-	-	-	-	-	-
Transport		-	-	-	-	-	-	-
Services & households etc.		-	-	-	-	-	-	-
<i>among which:</i>								
Households		-	-	-	-	-	-	-
Services		-	-	-	-	-	-	-


## 6.1 Hard coal

 eurostat	KYPROS/KIBRIS							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	21	26	50	59	66	51	-22.7%	
Total exports	-	-	-	-	-	-	-	
Stock changes	5	4	-1	-6	-12	2	191.7%	
Gross inland consumption	26	30	49	53	54	53	-1.9%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants								
Inputs to heat plants	-	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-	-
Industry								
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-
Chemical industry	-	-	-	-	-	-	-	-
Non-met. mineral prod.	26	30	49	53	53	53	0.0%	
Food, drink, tobacco	-	-	-	-	-	-	-	-
Pulp, paper and print	-	-	-	-	-	-	-	-
Engineering & metal	-	-	-	-	-	-	-	-
Other industries	-	-	-	-	-	-	-	-
Services & households etc.	-	-	-	-	-	-	-	-
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)								
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	-


## 6.2 Coal derivatives and peat

	KYPROS/KIBRIS						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
<i>among which:</i>							
Iron & steel industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	10	11	10	12	12	12	0.0%
<i>among which:</i>							
Industry	10	11	10	12	12	12	0.0%
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-

## 7. Renewable energy sources


	KYPROS/KIBRIS							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	43	44	45	44	45	37	-17.2%	
Hydro (excl. pumping)	-	-	-	-	-	-	-	
Wind	-	-	-	-	-	-	-	
Solar	34	35	35	34	35	36	2.6%	
Geothermal	-	-	-	-	-	-	-	
Biomass	9	9	9	9	10	1	-90.7%	
<i>among which:</i>								
Wood, wood-waste	9	9	9	9	10	1	-90.7%	
Municipal solid waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	
Gross inland consumption	43	44	45	44	45	37	-17.2%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	-	-	-	-	-	-	-	
Biomass	-	-	-	-	-	-	-	
<i>among which:</i>								
Wood, wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	43	44	45	44	45	37	-17.2%	
<i>by sector:</i>								
Industry	-	-	-	-	-	-	-	
Services & households etc.	43	44	45	44	45	37	-17.2%	
Transport	-	-	-	-	-	-	-	
<i>by source:</i>								
Biomass	9	9	9	9	10	1	-90.7%	
<i>among which:</i>								
Wood, wood-waste	9	9	9	9	10	1	-90.7%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	
Geothermal	-	-	-	-	-	-	-	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	-	-	-	-	-	-	-	
Hydro with installed capacity < 1 MW	-	-	-	-	-	-	-	
Hydro with installed capacity > 1 & <10 MW	-	-	-	-	-	-	-	
Hydro with installed capacity > 10 MW	-	-	-	-	-	-	-	
Wood, Wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	



	KYPROS/KIBRIS						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	-	-	-	-	-	-	-
Hydro with installed capacity > 1 & <10 MW	-	-	-	-	-	-	-
Hydro with installed capacity > 10 MW	-	-	-	-	-	-	-
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-

# 1. Energy economy

## Key figures and energy indicators

		LATVIJA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	1 912	1 770	1 552	1 672	1 831	1 975
Net energy imports		2 589	2 210	2 300	2 533	2 429	2 680
Net oil imports		1 702	1 165	1 142	1 439	1 330	1 455
Net gas imports		1 099	1 026	1 113	1 087	1 144	1 406
Gross inland energy consumption		4 444	4 098	3 970	4 242	4 194	4 378
Final energy consumption		3 646	3 418	3 206	3 597	3 628	3 715
Industry		752	669	608	636	661	671
Transport		709	696	691	888	870	902
Services and households etc.		2 185	2 053	1 906	2 074	2 097	2 143
Gross electricity generation	GWh	5 797	4 110	4 136	4 280	3 975	3 975
Final electricity consumption		4 461	4 426	4 439	4 523	4 849	5 180
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	4 404	4 549	4 862	5 252	5 590	6 007
Population	1000 per.	2 421	2 399	2 382	2 364	2 346	2 332
Industry added value	Mio EUR	1 188	1 148	1 207	1 315	1 429	1 557
Total imports (current prices)	Mio EUR	2 742	2 600	2 680	3 069	3 209	3 627
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	1 009.2	900.9	816.5	807.8	750.3	728.9
Final energy consumption / GDP(95)		827.9	751.3	659.4	684.9	649.0	618.5
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		632.9	582.9	504.0	483.4	462.6	430.7
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		244.3	215.0	181.2	173.3	177.1	170.7
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	1 836	1 708	1 667	1 794	1 788	1 878
Final energy consumption / capita		1 506	1 424	1 346	1 521	1 547	1 594
Household consumption / capita		619	587	555	620	620	629
Electricity consumption / capita	kWh/cap.	830	1 378	1 301	1 407	1 641	1 842
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	58.2	53.9	57.9	57.1	55.2	58.7
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	82.0	83.4	80.8	84.8	86.5	84.9
Efficiency of thermal power stations		73.5	78.7	78.7	79.6	80.2	81.1

## 2. Energy balance

### Principal aggregates by product

eurostat	LATVIJA						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	1 912	1 770	1 552	1 672	1 831	1 975	7.9%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	12	77	25	17	34	2	-94.4%
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	371	237	242	244	212	195	-8.0%
Biomass	1 529	1 456	1 284	1 411	1 585	1 774	12.0%
<b>Imports</b>							
Total	3 090	2 689	2 532	2 795	2 794	3 186	14.0%
<i>among which:</i> Hard coal	77	77	54	59	69	84	21.6%
Crude oil and feedstocks	1	14	60	20	17	8	-52.7%
Petroleum products	1 825	1 341	1 113	1 420	1 314	1 454	10.7%
Natural Gas	1 099	1 026	1 113	1 087	1 144	1 406	22.9%
Electricity	79	223	181	201	244	230	-5.9%
<b>Exports</b>							
Total	502	478	232	262	365	506	38.5%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	124	190	32	1	1	7	543.7%
Natural gas	-	-	-	-	-	-	-
Electricity	33	55	28	39	42	3	-92.2%
<b>Gross inland consumption</b>							
Total	4 444	4 098	3 970	4 242	4 194	4 378	4.4%
<i>among which:</i> Solid fuels	150	114	166	123	99	95	-4.5%
Crude oil and petrol. prod.	1 661	1 402	1 203	1 232	1 146	1 248	8.9%
Natural gas	1 033	990	1 092	1 270	1 291	1 347	4.3%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	1 555	1 424	1 354	1 456	1 456	1 462	0.4%
<b>Transformation input</b>							
Total	1 416	1 295	1 122	1 208	1 210	1 257	3.9%
<i>among which:</i> Crude oil and feedstocks	1	1	1	1	1	1	0.0%
Petroleum products	494	400	133	107	104	77	-25.7%
Hard coal	13	12	12	12	8	7	-8.4%
Lignite and peat	40	29	52	29	24	16	-33.3%
Renewables	222	221	199	222	262	303	15.7%
<b>Transformation output</b>							
Total	1 157	984	876	936	919	944	2.7%
<i>among which:</i> Electricity	127	116	113	124	129	143	10.7%
Heat	1 024	864	761	811	789	801	1.4%

**Final energy consumption**

Total	3 646	3 418	3 206	3 597	3 628	3 715	2.4%
<i>among which:</i> Solid fuels	85	72	58	80	67	64	-3.8%
Petroleum products	1 064	1 011	939	1 125	1 094	1 150	5.2%
Natural Gas	344	319	329	390	447	456	2.1%
Renewables	961	965	909	985	975	958	-1.7%
Electricity	384	381	382	389	417	445	6.8%

**Final energy consumption by sector**
**Industry**

Total	752	669	608	636	661	671	1.4%
<i>among which:</i> Solid fuels	9	10	8	10	12	10	-15.7%
Petroleum Products	238	198	147	97	94	97	2.9%
Natural Gas	218	193	207	254	282	275	-2.5%
Renewables	121	118	107	127	127	136	6.9%
Electricity	122	123	123	133	131	138	5.2%


**Transport**

Total	709	696	691	888	870	902	3.7%
<i>among which:</i> Motor spirit	364	351	306	365	357	345	-3.5%
Diesel oil	294	290	326	459	453	489	8.0%
Jet fuel	35	37	27	27	28	36	29.6%
Electricity	11	10	10	10	10	10	3.6%


**Services&households**

Total	2 185	2 053	1 906	2 074	2 097	2 143	2.2%
<i>among which:</i> Solid fuels	76	62	50	69	55	54	-1.2%
Gas oil	57	64	64	99	92	113	23.1%
Natural Gas	126	125	120	134	164	180	9.9%
Renewables	840	847	802	858	848	822	-3.0%
Electricity	251	248	248	246	276	298	7.7%
Heat	764	643	574	614	613	626	2.1%


### 3.1 Electricity balance

 eurostat	LATVIJA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	5 797	4 110	4 136	4 280	3 975	3 975	0.0%
<i>among which:</i>							
Hydro	4 316	2 757	2 819	2 833	2 463	2 266	-8.0%
Wind	2	2	4	3	11	48	336.4%
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	1 479	1 351	1 313	1 444	1 501	1 661	10.7%
<i>of which:</i>							
Hard coal	-	-	-	-	-	-	-
Lignite and peat	99	37	78	42	38	22	-42.1%
Petroleum products	305	358	107	95	139	82	-41.0%
Natural gas	1 075	955	1 128	1 305	1 314	1 533	16.7%
Derived gases	-	-	-	-	-	-	-
Biomass	-	-	-	3	10	24	140.0%
Industrial wastes	-	1	-	-1	-	-	-
Total net generation	5 614	3 942	3 980	4 145	3 831	3 751	-2.1%
<b>Imports and exports</b>							
Total imports	914	2 597	2 108	2 340	2 838	2 671	-5.9%
Total exports	384	642	322	457	490	38	-92.2%
<b>Consumption and losses</b>							
Consumption of the energy branch	672	529	491	650	481	526	9.4%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	1 194	1 110	992	990	993	902	-9.2%
Final energy consumption	4 461	4 426	4 439	4 523	4 849	5 180	6.8%
<i>of which:</i>							
Industry	1 421	1 425	1 433	1 545	1 526	1 605	5.2%
<i>among which:</i>							
Iron&steel industry	110	110	125	132	137	140	2.2%
Non-ferrous metals	2	2	-	-	3	-	-
Chemical industry	164	106	68	78	75	75	0.0%
Non-met. mineral prod.	108	93	85	93	100	105	5.0%
Food, drink, tobacco	319	306	300	311	308	313	1.6%
Pulp, paper and print	22	27	33	27	36	39	8.3%
Engineering & metal	219	191	195	229	199	211	6.0%
Other industries	265	361	398	447	447	502	12.3%
Transport	126	119	117	113	111	115	3.6%
Services & households etc.	2 914	2 882	2 889	2 865	3 212	3 460	7.7%
<i>among which:</i>							
Households	1 111	1 147	1 189	1 239	1 317	1 421	7.9%


## 3.2 Electrical capacity, fuel inputs and heat

 eurostat	LATVIJA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	2 104	2 115	2 092	2 102	2 135	2 155	0.9%
<i>by source:</i>								
Conventional thermal		581	589	577	576	583	591	1.4%
<i>of which:</i>								
Steam		581	589	577	576	560	559	-0.2%
Gas turbine		-	-	-	-	-	-	-
Combined cycle		-	-	-	-	-	-	-
Internal combustion		-	-	-	-	-	-	-
Nuclear		-	-	-	-	-	-	-
Hydro		1 522	1 525	1 513	1 524	1 530	1 538	0.5%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		1	1	2	2	22	26	18.2%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		2 059	2 066	2 075	2 066	2 110	2 124	0.7%
Autoproducers		45	50	40	36	30	31	3.3%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	569	566	505	578	601	622	3.5%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		32	23	47	26	23	14	-36.2%
Petroleum products		155	179	70	50	50	34	-30.8%
Natural gas		383	364	388	497	510	548	7.3%
Renewables		-	-	-	6	18	25	37.9%
Heating plants		843	725	614	629	608	634	4.2%
<i>among which:</i>								
Hard coal		13	12	12	12	8	7	-8.4%
Lignite and peat		5	3	3	2	1	1	20.0%
Petroleum products		339	222	63	57	54	43	-21.1%
Natural gas		263	268	338	341	301	304	1.2%
Renewables		222	221	199	217	244	278	14.1%
<b>Heat production and consumption</b>								
Total heat production	TJ	1 024	864	761	811	789	801	1.4%
<i>among which: in heating plants</i>		733	535	476	475	437	439	0.6%
Heat consumption		808	671	590	629	629	641	2.0%
<i>of which: in industry</i>		44	28	16	15	15	15	-0.6%
in households and services		764	643	574	614	613	626	2.1%
<i>among which: in households</i>		560	499	440	469	466	476	2.2%


## 4.1 Crude oil and feedstocks

 eurostat	LATVIJA								
	in 1 000 t		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		-	-	-	-	-	-	-	-
Total imports		1	14	59	20	17	8	-52.6%	
Total exports		-	-	-	-	-	-	-	
Stock changes		-	-	-7	3	-2	1	150.0%	
Refinery intake		1	1	1	1	1	1	0.0%	
<b>Imports of Crude Oil by origin</b>									
<i>by region of origin:</i>									
OPEC		-	-	-	-	-	-	-	
Near and Middle East		-	-	-	-	-	-	-	
Africa		-	-	-	-	-	-	-	
<i>by country of origin:</i>									
Algeria		-	-	-	-	-	-	-	
Nigeria		-	-	-	-	-	-	-	
Saudi Arabia		-	-	-	-	-	-	-	
Kuwait		-	-	-	-	-	-	-	
United Arab Emirates		-	-	-	-	-	-	-	
Norway		-	-	-	-	-	-	-	
<b>Refining capacity</b>									
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-	
<i>among which:</i>									
Cracking and others		-	-	-	-	-	-	-	
Reforming		-	-	-	-	-	-	-	


## 4.2 Petroleum products

 eurostat	LATVIJA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	1	1	1	1	1	1	1	0.0%
<i>among which:</i>								
Motor spirit	-	-	-	-	-	-	-	-
Kerosene and jet fu	-	-	-	-	-	-	-	-
Naphtha	-	-	-	-	-	-	-	-
Gas/diesel oil	1	1	1	-	1	1	1	0.0%
Residual fuel oil	-	-	-	-	-	-	-	-
Total imports	1 846	1 357	1 114	1 422	1 315	1 461	1 461	11.1%
Total exports	120	183	31	1	1	6	6	500.0%
Bunkers	-	-	-	197	208	190	190	-8.7%
Stock changes	-48	246	70	-19	22	-28	-28	-227.3%
Gross inland consumption	1 681	1 421	1 154	1 206	1 128	1 239	1 239	9.8%
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	-	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-	-
Imports by product								
<i>among which:</i>								
Motor spirit	434	356	353	289	286	322	322	12.6%
Kerosene and jet fu	40	42	35	27	29	38	38	31.0%
Gas/diesel oil	413	385	397	665	613	665	665	8.5%
Residual fuel oil	785	384	148	288	219	224	224	2.3%
Exports by product								
<i>among which:</i>								
Motor spirit	89	156	11	-	-	-	-	-
Kerosene and jet fu	-	-	-	-	-	-	-	-
Gas/diesel oil	13	8	19	-	1	-	-	-
Residual fuel oil	15	18	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants	162	187	73	52	52	36	36	-30.8%
Inputs to heating plants	355	232	66	61	57	45	45	-21.1%
Non-energy use	35	77	72	60	72	76	76	5.6%
Final energy consumption	1 055	1 000	927	1 110	1 082	1 141	1 141	5.5%
Industry								
<i>among which by product:</i>								
Gas/diesel oil	39	36	35	32	29	28	28	-3.4%
Residual fuel oil	179	143	92	35	27	17	17	-37.0%




 eurostat	LATVIJA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
Industry								
<i>among which by sector:</i>								
Iron&steel industry	26	27	28	24	23	23	0.0%	
Non-ferrous metals	-	-	-	6	15	11	-26.7%	
Chemical industry	2	4	3	3	4	3	-25.0%	
Non-met. mineral products	47	53	37	5	7	30	328.6%	
Food, drink, tobacco	94	66	49	35	32	24	-25.0%	
Pulp, paper and printing	-	-	-	-	-	-	-	
Engineering & metal	10	8	4	4	2	2	0.0%	
Other industries	45	28	25	22	21	19	-9.5%	
Transport	676	663	659	851	834	866	3.8%	
<i>among which:</i>								
Motor spirit	346	334	291	347	340	328	-3.5%	
Jet fuel	34	36	26	26	27	35	29.6%	
Diesel oil	291	287	323	454	448	484	8.0%	
Services & households etc.	125	126	110	150	139	159	14.4%	
<i>among which:</i>								
Gas oil	56	63	63	98	91	112	23.1%	
Residual fuel oil	25	23	18	18	13	12	-7.7%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	-	-	11	10	12	11	-8.3%	
Petroleum products	493	238	168	186	168	196	16.7%	


## 5. Natural gas

 eurostat	LATVIJA						
	in TJ (GCV)						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>							
Primary production	-	-	-	-	-	-	-
Total imports	51 124	47 709	51 790	50 565	53 210	65 403	22.9%
Total exports	-	-	-	-	-	-	-
Stock changes	-3 070	-1 664	-972	8 503	6 870	-2 728	-139.7%
Gross inland consumption	48 054	46 045	50 818	59 068	60 080	62 675	4.3%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
CIS	-	-	-	-	-	-	-
Algeria	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
<b>Consumption</b>							
Inputs to electricity plants	17 794	16 939	18 061	23 110	23 748	25 488	7.3%
Inputs to heat plants	12 244	12 463	15 706	15 844	14 003	14 165	1.2%
Consumption of energy branch	814	703	897	974	896	972	8.5%
Distribution losses	1 147	1 109	748	524	635	822	29.4%
Non-energy use	-	-	-	-	-	-	-
Industry	10 136	8 987	9 647	11 799	13 106	12 782	-2.5%
<i>among which:</i>							
Iron&steel industry	4 439	4 290	4 338	4 509	4 331	4 410	1.8%
Non-ferrous metals	59	111	187	211	299	336	12.4%
Chemical industry	233	222	224	262	299	336	12.4%
Non-met. mineral prod.	1 184	776	898	2 023	2 613	2 093	-19.9%
Food, drink, tobacco	2 875	2 219	2 206	2 547	2 875	2 616	-9.0%
Pulp, paper and print	104	111	112	150	149	187	25.5%
Engineering & metal	207	222	224	337	411	524	27.5%
Other industries	684	629	635	712	897	1 047	16.7%
Transport	37	37	75	112	75	75	0.0%
Services & households etc.	5 845	5 807	5 572	6 218	7 617	8 371	9.9%
<i>among which:</i>							
Households	3 218	3 144	2 954	3 334	3 659	4 074	11.3%
Services	1 961	2 108	2 057	2 210	3 249	3 475	7.0%


## 6.1 Hard coal


 eurostat	LATVIJA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	124	124	80	87	102	124	21.6%	
Total exports	-	-	-	-	-	-	-	
Stock changes	22	2	17	40	-	-23	-	
Gross inland consumption	146	126	97	127	102	101	-1.0%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	
Poland	-	-	-	-	-	-	-	
CIS	-	-	-	-	-	-	-	
Australia	-	-	-	-	-	-	-	
South Africa	-	-	-	-	-	-	-	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants								
Inputs to heat plants	21	18	17	17	12	11	-8.3%	
Consumption of energy branch								
Industry	13	13	8	8	8	9	12.5%	
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	-	-	-	-	-	-	-	
Non-met. mineral prod.	1	1	1	1	1	1	0.0%	
Food, drink, tobacco	5	6	4	4	4	5	25.0%	
Pulp, paper and print	1	1	-	1	1	1	0.0%	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	1	2	2	1	1	1	0.0%	
Services & households etc.	111	95	71	101	81	80	-1.2%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)								
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivates and peat

	LATVIJA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	61	383	68	69	142	8	-94.4%
Brown coal briquettes	11	6	2	1	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	1	2	4	8	10	6	-40.0%
<i>among which:</i>							
Iron & steel industry	-	2	4	8	9	5	-44.4%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	9	8	1	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	9	8	1	-	-	-	-
Brown coal briquettes	13	4	2	1	-	-	-
<i>among which:</i>							
Industry	1	1	-	-	-	-	-
Services & households	12	3	2	1	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-


## 7. Renewable energy sources

		LATVIJA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	1 900	1 693	1 527	1 655	1 797	1 973	9.8%
Hydro (excl. pumping)		371	237	242	244	212	195	-8.0%
Wind		0	0	0	0	1	4	336.4%
Solar		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Biomass		1 529	1 456	1 284	1 411	1 585	1 774	12.0%
	<i>among which:</i>							
Wood, wood-waste		1 529	1 456	1 284	1 411	1 583	1 772	11.9%
Municipal solid waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	2	3	46.6%
Gross inland consumption		1 555	1 424	1 354	1 456	1 456	1 462	0.4%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		222	221	199	222	262	303	15.7%
	<i>among which:</i>							
Wood, wood-waste		222	221	199	222	260	301	15.5%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	2	3	46.6%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	961	965	909	985	975	958	-1.7%
	<i>by sector:</i>							
Industry		121	118	107	127	127	136	6.9%
Services & households etc.		840	847	802	858	848	822	-3.0%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		961	965	909	985	975	958	-1.7%
	<i>among which:</i>							
Wood, wood-waste		961	965	909	985	975	958	-1.7%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		9	10	17	29	24	43	79.2%
Hydro with installed capacity > 1 & <10 MW		9	7	8	8	8	14	75.0%
Hydro with installed capacity > 10 MW		4 298	2 739	2 794	2 796	2 431	2 213	-9.0%
Wood, Wood-waste		-	-	-	3	5	6	20.0%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-

	LATVIJA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	4	6	8	11	17	20	17.6%
Hydro with installed capacity > 1 & <10 MW	1	1	1	1	2	6	200.0%
Hydro with installed capacity > 10 MW	1 517	1 504	1 504	1 511	1 511	1 511	0.0%
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		LIETUVA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	4 460	3 478	3 183	4 118	4 847	5 119
Net energy imports		4 789	4 353	4 354	3 939	3 753	4 127
Net oil imports		3 416	2 662	2 297	2 050	1 991	2 225
Net gas imports		1 754	1 826	2 090	2 171	2 195	2 384
Gross inland energy consumption		9 351	7 921	7 249	8 020	8 671	9 004
Final energy consumption		4 343	3 956	3 639	3 778	3 903	4 003
Industry		883	727	678	690	749	789
Transport		1 310	1 170	1 048	1 142	1 176	1 199
Services and households etc.		2 150	2 059	1 913	1 946	1 978	2 014
Gross electricity generation	GWh	17 631	13 535	11 424	14 737	17 721	19 488
Final electricity consumption		6 729	6 520	6 171	6 406	6 693	7 142
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	5 872	5 773	5 999	6 381	6 813	7 423
Population	1000 per.	3 562	3 536	3 512	3 487	3 476	3 463
Industry added value	Mio EUR	1 836	1 719	1 724	1 944	2 059	2 407
Total imports (current prices)	Mio EUR	4 881	4 276	4 478	5 269	6 199	6 831
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	1 592.4	1 372.1	1 208.5	1 256.7	1 272.7	1 212.9
Final energy consumption / GDP(95)		739.6	685.2	606.6	592.0	573.0	539.2
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		480.9	422.7	393.5	354.8	363.9	327.8
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		182.6	174.2	146.0	141.2	136.8	138.0
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 625	2 240	2 064	2 300	2 495	2 600
Final energy consumption / capita		1 219	1 119	1 036	1 083	1 123	1 156
Household consumption / capita		408	401	383	394	397	400
Electricity consumption / capita	kWh/cap.	2 991	2 825	2 689	2 888	3 008	3 169
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	50.9	54.5	59.3	48.5	42.8	45.3
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	46.4	49.9	50.2	47.1	45.0	44.5
Efficiency of thermal power stations		66.3	67.6	69.5	69.1	71.2	72.7

## 2. Energy balance

### Principal aggregates by product

 eurostat	LIETUVA						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	4 460	3 478	3 183	4 118	4 847	5 119	5.6%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	17	23	12	10	14	13	-8.0%
Crude oil	281	236	322	480	442	389	-12.1%
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	3 496	2 544	2 172	2 931	3 648	3 994	9.5%
Hydro-electricity	36	36	29	28	30	28	-8.2%
Biomass	576	621	627	630	666	677	1.6%
<b>Imports</b>							
Total	10 072	7 651	8 094	9 713	9 407	10 542	12.1%
<i>among which:</i> Hard coal	139	87	78	64	134	177	32.3%
Crude oil and feedstocks	6 867	4 726	5 144	6 777	6 391	7 303	14.3%
Petroleum products	908	581	328	311	288	310	7.5%
Natural Gas	1 754	1 826	2 090	2 171	2 195	2 384	8.6%
Electricity	393	421	443	382	390	356	-8.6%
<b>Exports</b>							
Total	5 283	3 298	3 740	5 774	5 654	6 415	13.5%
<i>among which:</i> Crude oil and feedstocks	269	231	317	358	126	293	132.1%
Petroleum products	4 090	2 414	2 858	4 680	4 561	5 095	11.7%
Natural gas	-	-	-	-	-	-	-
Electricity	916	651	558	723	947	1 004	6.0%
<b>Gross inland consumption</b>							
Total	9 351	7 921	7 249	8 020	8 671	9 004	3.8%
<i>among which:</i> Solid fuels	159	136	99	90	147	190	29.6%
Crude oil and petrol. prod.	3 859	3 019	2 355	2 486	2 545	2 378	-6.6%
Natural gas	1 754	1 826	2 090	2 171	2 195	2 384	8.6%
Nuclear Energy	3 496	2 544	2 172	2 931	3 648	3 994	9.5%
Renewables	606	627	649	682	694	705	1.7%
<b>Transformation input</b>							
Total	12 642	9 059	8 841	11 580	12 023	12 968	7.9%
<i>among which:</i> Crude oil and feedstocks	7 002	4 697	5 088	6 993	6 747	7 318	8.5%
Petroleum products	1 278	867	393	455	393	242	-38.4%
Hard coal	16	10	7	8	7	7	9.1%
Lignite and peat	8	8	6	6	7	8	16.7%
Renewables	43	21	39	68	100	122	21.8%
<b>Transformation output</b>							
Total	9 650	6 862	6 957	9 115	9 175	9 888	7.8%
<i>among which:</i> Electricity	1 439	1 090	927	1 207	1 457	1 591	9.2%
Heat	1 348	1 167	1 032	1 042	1 050	1 058	0.8%



**Final energy consumption**

Total	4 343	3 956	3 639	3 778	3 903	4 003	2.5%
<i>among which:</i> Solid fuels	138	119	88	77	136	175	28.6%
Petroleum products	1 758	1 534	1 348	1 413	1 399	1 383	-1.2%
Natural Gas	422	364	367	390	423	438	3.8%
Renewables	530	572	579	585	592	594	0.3%
Electricity	579	561	531	551	575	614	6.7%

**Final energy consumption by sector**
**Industry**

Total	883	727	678	690	749	789	5.3%
<i>among which:</i> Solid fuels	14	15	13	10	55	86	57.4%
Petroleum Products	269	214	170	155	101	67	-33.2%
Natural Gas	248	182	205	220	244	251	3.0%
Renewables	17	25	31	46	81	99	23.1%
Electricity	225	207	197	202	219	226	3.3%


**Transport**

Total	1 310	1 170	1 048	1 142	1 176	1 199	2.0%
<i>among which:</i> Motor spirit	648	505	391	390	377	375	-0.6%
Diesel oil	585	557	507	588	613	613	0.0%
Jet fuel	29	27	27	35	31	33	6.7%
Electricity	5	4	4	4	4	5	1.9%


**Services&households**

Total	2 150	2 059	1 913	1 946	1 978	2 014	1.8%
<i>among which:</i> Solid fuels	124	103	75	66	81	89	9.3%
Gas oil	77	48	39	33	38	39	2.6%
Natural Gas	173	183	162	170	179	187	4.8%
Renewables	513	547	548	539	511	494	-3.3%
Electricity	348	349	329	345	352	383	8.9%
Heat	807	723	663	706	728	740	1.6%


### 3.1 Electricity balance

 eurostat	LIETUVA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	17 631	13 535	11 424	14 737	17 721	19 488	10.0%
<i>among which:</i>							
Hydro	895	861	643	701	781	985	26.1%
Wind	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Nuclear	13 554	9 862	8 419	11 362	14 142	15 484	9.5%
Conventional thermal	3 182	2 812	2 362	2 674	2 798	3 019	7.9%
<i>of which:</i>							
Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	2 851	1 752	654	720	547	327	-40.2%
Natural gas	279	1 000	1 617	1 884	2 109	2 518	19.4%
Derived gases	-	-	-	-	-	-	-
Biomass	-	-	-	2	4	7	75.0%
Industrial wastes	52	60	91	68	138	167	21.0%
Total net generation	15 947	11 949	10 039	13 218	16 078	17 878	11.2%
<b>Imports and exports</b>							
Total imports	4 572	4 893	5 150	4 442	4 532	4 144	-8.6%
Total exports	10 654	7 575	6 486	8 406	11 018	11 674	6.0%
<b>Consumption and losses</b>							
Consumption of the energy branch	2 823	2 556	2 332	2 576	2 689	2 751	2.3%
<i>of which:</i>							
Consumption for pumped-storage	176	167	122	142	153	230	50.3%
Network losses	1 519	1 330	1 281	1 416	1 426	1 405	-1.5%
Final energy consumption	6 729	6 520	6 171	6 406	6 693	7 142	6.7%
<i>of which:</i>							
Industry	2 620	2 408	2 294	2 346	2 546	2 630	3.3%
<i>among which:</i>							
Iron&steel industry	54	57	53	54	40	34	-15.0%
Non-ferrous metals	-	-	-	-	-	-	-
Chemical industry	512	465	451	450	507	551	8.7%
Non-met. mineral prod.	248	219	186	189	232	236	1.7%
Food, drink, tobacco	491	491	441	433	454	451	-0.7%
Pulp, paper and print	113	103	124	135	99	86	-13.1%
Engineering & metal	388	352	348	371	391	399	2.0%
Other industries	385	349	360	382	472	526	11.4%
Transport	57	51	50	50	52	53	1.9%
Services & households etc.	4 052	4 061	3 827	4 010	4 095	4 459	8.9%
<i>among which:</i>							
Households	1 743	1 886	1 767	1 818	1 811	1 895	4.6%


## 3.2 Electrical capacity, fuel inputs and heat


	LIETUVA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	6 537	6 538	6 557	6 568	6 564	6 568	0.1%
<i>by source:</i>								
Conventional thermal		2 628	2 628	2 643	2 652	2 648	2 648	0.0%
<i>of which:</i>								
Steam		2 628	2 628	2 643	2 652	2 648	2 648	0.0%
Gas turbine		-	-	-	-	-	-	-
Combined cycle		-	-	-	-	-	-	-
Internal combustion		-	-	-	-	-	-	-
Nuclear		3 000	3 000	3 000	3 000	3 000	3 000	0.0%
Hydro		909	910	914	916	916	920	0.4%
<i>among which:</i>								
Pumped storage		800	800	800	800	800	800	0.0%
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		6 476	6 477	6 481	6 486	6 486	6 490	0.1%
Autoproducers		61	61	76	82	78	78	0.0%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	1 260	1 074	922	1 009	991	1 043	5.3%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		839	517	196	220	225	142	-37.0%
Natural gas		421	557	726	778	745	883	18.5%
Renewables		-	-	-	11	20	18	-9.0%
Heating plants		883	740	658	645	634	608	-4.1%
<i>among which:</i>								
Hard coal		16	10	7	8	7	7	9.1%
Lignite and peat		3	2	2	3	3	3	0.0%
Petroleum products		438	350	197	234	167	100	-40.4%
Natural gas		378	355	410	341	377	394	4.6%
Renewables		43	21	39	57	80	103	29.5%
<b>Heat production and consumption</b>								
Total heat production	TJ	1 348	1 167	1 032	1 042	1 050	1 058	0.8%
<i>among which: in heating plants</i>		726	627	542	522	531	508	-4.3%
Heat consumption		917	807	725	763	779	799	2.6%
<i>of which: in industry</i>		110	83	61	57	51	59	16.4%
in households and services		807	723	663	706	728	740	1.6%
<i>among which: in households</i>		604	534	484	517	544	544	0.0%

## 4.1 Crude oil and feedstocks


 eurostat	LIETUVA							
	in 1 000 t		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		277	232	316	471	434	382	-12.0%
Total imports		6 775	4 656	5 052	6 651	6 276	7 177	14.4%
Total exports		265	228	311	351	124	288	132.3%
Stock changes		165	-1	-46	125	80	-75	-193.8%
Refinery intake		6 904	4 625	4 995	6 861	6 625	7 191	8.5%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	LIETUVA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	6 761	4 527	4 903	6 732	6 542	7 106	8.6%	
<i>among which:</i>								
Motor spirit	2 112	1 369	1 559	1 889	1 719	1 882	9.5%	
Kerosene and jet fuel	373	304	466	669	655	695	6.1%	
Naphtha	-	-	-	-	-	-	-	
Gas/diesel oil	2 055	1 476	1 450	2 021	1 850	2 064	11.6%	
Residual fuel oil	1 515	867	798	1 161	1 229	1 381	12.4%	
Total imports	929	586	325	309	291	309	6.2%	
Total exports	3 996	2 355	2 790	4 570	4 472	5 010	12.0%	
Bunkers	51	74	94	102	112	112	0.0%	
Stock changes	-10	184	-157	-131	90	-71	-178.9%	
Gross inland consumption	-3 068	-1 638	-2 676	-4 438	-4 147	-4 862	-17.2%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	-	-	-	-	-	-	-	
United Kingdom	-	-	-	-	-	-	-	
Norway	-	-	-	-	-	-	-	
OPEC	-	-	-	-	-	-	-	
Imports by product								
<i>among which:</i>								
Motor spirit	108	91	17	24	2	2	0.0%	
Kerosene and jet fuel	4	4	20	26	25	25	0.0%	
Gas/diesel oil	85	59	39	71	50	39	-22.0%	
Residual fuel oil	637	328	138	98	118	124	5.1%	
Exports by product								
<i>among which:</i>								
Motor spirit	1 596	955	1 155	1 585	1 396	1 563	12.0%	
Kerosene and jet fuel	350	245	386	489	483	415	-14.1%	
Gas/diesel oil	1 390	766	667	1 444	1 401	1 651	17.8%	
Residual fuel oil	463	273	415	639	742	979	31.9%	
<b>Consumption</b>								
Inputs to electricity plants	882	542	206	233	239	150	-37.2%	
Inputs to heating plants	458	366	206	245	175	104	-40.6%	
Non-energy use	155	138	120	125	146	162	11.0%	
Final energy consumption	1 719	1 497	1 311	1 374	1 356	1 336	-1.5%	
Industry								
<i>among which by product:</i>								
Gas/diesel oil	45	38	26	24	21	23	9.5%	
Residual fuel oil	224	174	140	127	75	38	-49.3%	

 eurostat	LIETUVA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		-	-	-	-	-	-	-
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		4	5	3	3	1	1	0.0%
Non-met. mineral prod.		141	105	90	89	52	14	-73.1%
Food, drink, tobacco		67	58	46	32	16	20	25.0%
Pulp, paper and print		6	7	1	1	1	1	0.0%
Engineering & metal		6	2	3	5	5	2	-60.0%
Other industries		45	35	24	21	22	23	4.5%
<b>Transport</b>		1 263	1 128	1 008	1 101	1 133	1 154	1.9%
<i>among which:</i>								
Motor spirit		617	481	372	371	359	357	-0.6%
Jet fuel		28	26	26	34	30	32	6.7%
Diesel oil		579	551	502	582	607	607	0.0%
<b>Services &amp; households etc.</b>		178	148	128	113	120	114	-5.0%
<i>among which:</i>								
Gas oil		76	48	39	33	38	39	2.6%
Residual fuel oil		31	31	12	7	11	7	-36.4%
<b>Stocks at end of period</b>								
Crude oil and feedstocks		337	349	386	262	181	256	41.4%
Petroleum products		624	440	597	728	638	709	11.1%

## 5. Natural gas


 eurostat	LIETUVA								
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		-	-	-	-	-	-	-	-
Total imports		81 578	84 946	97 244	101 015	102 123	110 900	8.6%	
Total exports		-	-	-	-	-	-	-	
Stock changes		-	-	-	-	-	-	-	
Gross inland consumption		81 578	84 946	97 244	101 015	102 123	110 900	8.6%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		-	-	-	-	-	-	-	
Algeria		-	-	-	-	-	-	-	
Norway		-	-	-	-	-	-	-	
<b>Consumption</b>									
Inputs to electricity plants		19 587	25 910	33 780	36 202	34 665	41 086	18.5%	
Inputs to heat plants		17 577	16 497	19 076	15 865	17 531	18 343	4.6%	
Consumption of energy branch		142	170	158	531	572	507	-11.4%	
Distribution losses		1 912	1 251	1 258	1 165	721	1 120	55.3%	
Non-energy use		22 744	24 163	25 898	29 103	28 977	29 445	1.6%	
Industry		11 547	8 448	9 553	10 234	11 346	11 690	3.0%	
<i>among which:</i>									
Iron&steel industry		11	11	14	29	4	7	75.0%	
Non-ferrous metals		-	-	-	-	-	-	-	
Chemical industry		2 629	476	207	216	283	395	39.6%	
Non-met. mineral prod.		1 928	1 938	1 934	2 079	1 440	1 442	0.1%	
Food, drink, tobacco		2 973	2 594	3 270	3 248	4 264	4 527	6.2%	
Pulp, paper and print		1 078	839	1 307	1 507	1 030	474	-54.0%	
Engineering & metal		1 076	1 102	1 218	1 077	1 291	1 419	9.9%	
Other industries		869	654	666	817	1 576	1 838	16.6%	
Transport		-	-	-	-	-	-	-	
Services & households etc.		8 069	8 507	7 521	7 915	8 311	8 709	4.8%	
<i>among which:</i>									
Households		5 747	5 674	4 899	5 062	5 186	5 585	7.7%	
Services		1 256	1 979	1 465	1 537	1 811	1 883	4.0%	

## 6.1 Hard coal


 eurostat	LIETUVA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	232	145	130	106	223	295	32.3%	
Total exports	8	-	-	-	-	-	-	
Stock changes	-5	29	-	9	-12	-24	-100.0%	
Gross inland consumption	219	174	130	115	211	271	28.4%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants	-	-	-	-	-	-	-	-
Inputs to heat plants	26	17	12	13	11	12	9.1%	
Consumption of energy branch	-	-	-	-	-	-	-	-
Industry	6	9	6	4	79	129	63.3%	
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-
Chemical industry	-	-	-	-	-	-	-	-
Non-met. mineral prod.	1	-	-	-	74	124	67.6%	
Food, drink, tobacco	1	4	3	2	3	2	-33.3%	
Pulp, paper and print	2	2	1	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	1	1	1	1	1	3	200.0%	
Services & households etc.	185	146	112	98	120	129	7.5%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	-




## 6.2 Coal derivates and peat

	LIETUVA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	62	83	42	35	50	46	-8.0%
Brown coal briquettes	14	15	10	9	11	15	36.4%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	13	13	12	10	10	12	20.0%
<i>among which:</i>							
Iron & steel industry	1	1	1	-	-	-	-
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	27	28	16	15	15	14	-6.7%
<i>among which:</i>							
Industry	5	3	4	3	1	1	0.0%
Services & households	22	25	12	12	14	13	-7.1%
Brown coal briquettes	15	18	10	9	11	16	45.5%
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	15	18	10	9	11	16	45.5%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-


## 7. Renewable energy sources

	LIETUVA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	612	656	656	658	697	705	1.2%	
Hydro (excl. pumping)	36	36	29	28	30	28	-8.2%	
Wind	-	-	-	-	-	-	-	
Solar	-	-	-	-	-	-	-	
Geothermal	-	-	-	-	-	-	-	
Biomass	576	621	627	630	666	677	1.6%	
<i>among which:</i>								
Wood, wood-waste	576	621	627	630	665	675	1.6%	
Municipal solid waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	1	2	25.8%	
Gross inland consumption	606	627	649	682	694	705	1.7%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	-	-	-	-	-	-	-	
Biomass	43	21	39	68	100	122	21.8%	
<i>among which:</i>								
Wood, wood-waste	43	21	39	68	99	121	21.9%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	1	1	7.1%	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	530	572	579	585	592	594	0.3%	
<i>by sector:</i>								
Industry	17	25	31	46	81	99	23.1%	
Services & households etc.	513	547	548	539	511	494	-3.3%	
Transport	-	-	-	-	-	-	-	
<i>by source:</i>								
Biomass	530	572	579	585	592	594	0.3%	
<i>among which:</i>								
Wood, wood-waste	530	572	579	585	591	593	0.3%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	1	1	41.2%	
Geothermal	-	-	-	-	-	-	-	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	-	-	-	-	-	-	-	
Hydro with installed capacity < 1 MW	19	22	22	31	26	29	11.5%	
Hydro with installed capacity > 1 & <10 MW	7	4	5	10	11	12	9.1%	
Hydro with installed capacity > 10 MW	391	388	312	285	317	284	-10.4%	
Wood, Wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	

		LIETUVA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		6	7	9	11	9	13	44.4%
Hydro with installed capacity > 1 & <10 MW		2	2	4	4	6	6	0.0%
Hydro with installed capacity > 10 MW		101	101	101	101	101	101	0.0%
Wood, Wood-waste		-	-	-	-	-	-	-
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	-	-	-	-
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		LUXEMBOURG					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	50	46	57	50	56	60
Net energy imports		3 259	3 347	3 620	3 687	3 939	4 142
Net oil imports		2 048	2 100	2 332	2 396	2 498	2 682
Net gas imports		633	656	670	695	1 053	1 064
Gross inland energy consumption		3 274	3 440	3 628	3 765	3 979	4 196
Final energy consumption		3 187	3 346	3 549	3 692	3 734	3 947
Industry		867	922	958	921	888	890
Transport		1 553	1 701	1 877	1 986	2 126	2 322
Services and households etc.		767	722	714	786	720	735
Gross electricity generation	GWh	1 309	1 021	1 175	1 242	3 675	3 611
Final electricity consumption		5 297	5 510	5 716	5 633	5 673	6 015
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	16 543	17 835	19 444	19 745	20 232	20 823
Population	1000 per.	422	427	434	439	444	448
Industry added value	Mio EUR	3 484	3 567	3 794	3 910	4 029	4 155
Total imports (current prices)	Mio EUR	18 918	21 679	25 027	25 942	25 274	25 686
among which:							
All energy commodities		-	369	771	663	663	706
Oil products		-	-	-	-	-	-
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	197.9	192.9	186.6	190.7	196.7	201.5
Final energy consumption / GDP(95)		192.7	187.6	182.5	187.0	184.6	189.5
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		249.0	258.6	252.5	235.6	220.5	214.1
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		8.3	6.7	6.5	6.7	5.5	5.6
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	7 756	8 049	8 366	8 577	8 961	9 360
Final energy consumption / capita		7 551	7 829	8 184	8 410	8 409	8 804
Household consumption / capita		1 509	1 423	1 374	1 505	1 382	1 394
Electricity consumption / capita	kWh/cap.	13 416	13 601	13 856	13 633	13 722	14 214
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	99.5	97.3	99.8	97.9	99.0	98.7
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	97.4	97.3	97.8	98.1	93.8	94.1
Efficiency of thermal power stations		69.9	72.8	68.5	71.2	59.0	59.2

## 2. Energy balance

### Principal aggregates by product

 eurostat	LUXEMBOURG						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	50	46	57	50	56	60	6.4%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	10	8	10	2	10	7	-31.9%
Biomass	40	36	44	46	44	51	14.6%
<b>Imports</b>							
Total	3 356	3 423	3 701	3 782	4 209	4 395	4.4%
<i>among which:</i> Hard coal	106	107	120	106	89	74	-16.5%
Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	2 065	2 120	2 350	2 427	2 515	2 696	7.2%
Natural Gas	633	656	670	695	1 053	1 064	1.0%
Electricity	545	534	555	549	548	557	1.6%
<b>Exports</b>							
Total	96	75	81	95	269	253	-6.3%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	17	19	18	31	17	14	-17.8%
Natural gas	-	-	-	-	-	-	-
Electricity	79	56	63	64	253	239	-5.5%
<b>Gross inland consumption</b>							
Total	3 274	3 440	3 628	3 765	3 979	4 196	5.4%
<i>among which:</i> Solid fuels	113	113	125	110	93	78	-15.9%
Crude oil and petrol. prod.	2 013	2 147	2 283	2 425	2 482	2 676	7.8%
Natural gas	633	656	670	695	1 053	1 064	1.0%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	50	46	57	50	56	60	6.4%
<b>Transformation input</b>							
Total	65	63	75	87	449	466	3.8%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	-	-	-	-	-	-	-
Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Renewables	24	20	28	30	29	36	22.4%
<b>Transformation output</b>							
Total	45	46	52	62	265	276	4.2%
<i>among which:</i> Electricity	21	22	25	29	228	229	0.5%
Heat	24	24	27	33	36	47	27.5%

**Final energy consumption**

Total	3 187	3 346	3 549	3 692	3 734	3 947	5.7%
<i>among which:</i> Solid fuels	112	113	125	110	93	78	-15.9%
Petroleum products	1 991	2 109	2 266	2 411	2 469	2 656	7.6%
Natural Gas	590	611	623	637	633	633	0.1%
Renewables	15	15	16	16	15	15	0.0%
Electricity	455	474	491	484	488	517	6.0%

**Final energy consumption by sector**
**Industry**

Total	867	922	958	921	888	890	0.2%
<i>among which:</i> Solid fuels	110	112	124	109	92	78	-15.5%
Petroleum Products	81	78	73	67	53	49	-7.8%
Natural Gas	374	398	413	406	405	398	-1.8%
Renewables	-	-	-	-	-	-	-
Electricity	283	318	331	318	318	342	7.7%


**Transport**

Total	1 553	1 701	1 877	1 986	2 126	2 322	9.2%
<i>among which:</i> Motor spirit	569	587	607	598	584	595	1.8%
Diesel oil	692	772	939	1 030	1 154	1 325	14.8%
Jet fuel	282	332	320	346	375	390	4.1%
Electricity	7	8	8	9	9	9	0.0%


**Services&households**

Total	767	722	714	786	720	735	2.1%
<i>among which:</i> Solid fuels	2	1	1	1	1	0	-50.0%
Gas oil	348	326	313	352	295	291	-1.4%
Natural Gas	216	213	210	231	228	236	3.4%
Renewables	15	15	16	16	15	15	0.0%
Electricity	165	148	152	158	161	166	3.1%
Heat	5	6	9	12	16	23	44.8%

### 3.1 Electricity balance


 eurostat	LUXEMBOURG						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	1 309	1 021	1 175	1 242	3 675	3 611	-1.7%
<i>among which:</i>							
Hydro	1 049	747	862	877	994	917	-7.7%
Wind	11	18	27	26	25	26	4.0%
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	249	256	286	339	2 656	2 668	0.5%
<i>of which:</i>							
Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	-	-	-	-	-	-	-
Natural gas	204	204	234	279	2 593	2 603	0.4%
Derived gases	-	-	-	-	-	-	-
Biomass	45	50	52	60	63	65	3.2%
Industrial wastes	-	2	-	-	-	-	-
Total net generation	1 250	996	1 147	1 179	3 618	3 559	-1.6%
<b>Imports and exports</b>							
Total imports	6 338	6 212	6 457	6 390	6 377	6 481	1.6%
Total exports	924	655	735	744	2 939	2 777	-5.5%
<b>Consumption and losses</b>							
Consumption of the energy branch	351	291	298	225	362	307	-15.2%
<i>of which:</i>							
Consumption for pumped-storage	291	254	270	162	305	255	-16.4%
Network losses	108	126	141	173	197	153	-22.3%
Final energy consumption	5 297	5 510	5 716	5 633	5 673	6 015	6.0%
<i>of which:</i>							
Industry	3 292	3 693	3 852	3 693	3 694	3 978	7.7%
<i>among which:</i>							
Iron&steel industry	1 728	1 845	1 924	1 903	1 960	1 874	-4.4%
Non-ferrous metals	-	-	-	-	-	-	-
Chemical industry	270	319	333	309	299	299p	0.0%
Non-met. mineral prod.	313	-	-	-	-	-	-
Food, drink, tobacco	76	90	94	87	84	84p	0.0%
Pulp, paper and print	-	-	-	-	-	-	-
Engineering & metal	578	683	712	661	640	640p	0.0%
Other industries	-	370	386	359	348	348p	0.0%
Transport	87	94	97	101	104	104	0.0%
Services & households etc.	1 918	1 723	1 767	1 839	1 875	1 933	3.1%
<i>among which:</i>							
Households	752	678	695	723	737	745p	1.1%

## 3.2 Electrical capacity, fuel inputs and heat

		LUXEMBOURG						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	1 210	1 219	1 226	1 208	1 596	1 596p	0.0%
<i>by source:</i>								
Conventional thermal		59	72	74	65	443	443p	0.0%
<i>of which:</i>								
Steam		9	9	9	9	9	9p	0.0%
Gas turbine		-	-	-	-	-	-	-
Combined cycle		-	-	-	-	-	-	-
Internal combustion		32	45	47	47	66	66p	0.0%
Nuclear		-	-	-	-	-	-	-
Hydro		1 141	1 138	1 138	1 128	1 138	1 138p	0.0%
<i>among which:</i>								
Pumped storage		1 100	1 100	1 100	1 100	1 100	1 100p	0.0%
Wind		10	9	14	15	15	15p	0.0%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		1 144	1 142	1 148	1 140	1 490	1 490p	0.0%
Autoproducers		75	72	79	87	107	107p	0.0%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	65	63	75	87	449	466	3.8%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		41	42	47	57	420	431	2.5%
Renewables		24	20	28	30	29	36	22.4%
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	24	24	27	33	36	47	27.5%
<i>among which: in heating plants</i>								
		-	-	-	-	-	-	-
Heat consumption		24	24	27	33	36	47	27.5%
<i>of which: in industry</i>								
		19	17	17	21	20	23	14.0%
<i>in households and services</i>								
		5	6	9	12	16	23	44.8%
<i>among which: in households</i>								
		5	6	9	12	16	23	44.8%




## 4.1 Crude oil and feedstocks


 eurostat	<i>in 1 000 t</i>	LUXEMBOURG						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		-	-	-	-	-	-	-
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Refinery intake		-	-	-	-	-	-	-
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	<i>1 000 t/year</i>	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


eurostat	LUXEMBOURG							03/02
	1998	1999	2000	2001	2002	2003		
<i>in 1 000 t</i>								
<b>Production and supply</b>								
Total refinery output	-	-	-	-	-	-	-	-
<i>among which:</i>								
Motor spirit	-	-	-	-	-	-	-	-
Kerosene and jet fuel	-	-	-	-	-	-	-	-
Naphtha	-	-	-	-	-	-	-	-
Gas/diesel oil	-	-	-	-	-	-	-	-
Residual fuel oil	-	-	-	-	-	-	-	-
Total imports	2 016	2 069	2 295	2 372	2 459	2 638	7.3%	
Total exports	16	18	17	30	16	13	-18.8%	
Bunkers	-	-	-	-	-	-	-	
Stock changes	-35	46	-48	28	-16	-6	62.5%	
Gross inland consumption	1 965	2 097	2 230	2 370	2 427	2 619	7.9%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	166	181	72	71	76	126	65.8%	
United Kingdom	-	-	-	-	-	-	-	
Norway	-	-	-	-	-	-	-	
OPEC	-	-	-	-	-	-	-	
Imports by product								
<i>among which:</i>								
Motor spirit	553	555	595	574	554	573	3.4%	
Kerosene and jet fuel	281	323	319	331	371	378	1.9%	
Gas/diesel oil	1 125	1 134	1 333	1 416	1 491	1 646	10.4%	
Residual fuel oil	7	5	6	7	6	5	-16.7%	
Exports by product								
<i>among which:</i>								
Motor spirit	3	4	3	3	2	1	-50.0%	
Kerosene and jet fuel	-	-	-	-	-	-	-	
Gas/diesel oil	5	6	8	21	8	5	-37.5%	
Residual fuel oil	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	-	-	-	-	-	-	-	
Inputs to heating plants	-	-	-	-	-	-	-	
Non-energy use	18	22	14	12	11	14	27.3%	
Final energy consumption	1 942	2 058	2 213	2 356	2 414	2 599	7.7%	
Industry								
<i>among which by product:</i>								
Gas/diesel oil	60	56	50	45	32	31	-3.1%	
Residual fuel oil	7	5	6	7	6	5	-16.7%	

 eurostat	LUXEMBOURG							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	18	21	9	6	4	2	-50.0%	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	8	7	5	5	4	3	-25.0%	
Non-met. mineral prod.	10	10	8	8	5	5	0.0%	
Food, drink, tobacco	4	5	4	3	3	3	0.0%	
Pulp, paper and print	-	-	-	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	38	31	40	39	29	29	0.0%	
<b>Transport</b>	1 503	1 648	1 821	1 928	2 067	2 260	9.3%	
<i>among which:</i>								
Motor spirit	541	559	578	569	556	566	1.8%	
Jet fuel	275	323	312	337	365	380	4.1%	
Diesel oil	685	764	929	1 019	1 142	1 311	14.8%	
<b>Services &amp; households etc.</b>	359	334	321	362	295	291	-1.4%	
<i>among which:</i>								
Gas oil	344	323	310	348	292	288	-1.4%	
Residual fuel oil	-	-	-	-	-	-	-	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	-	-	-	-	-	-	-	
Petroleum products	134	88	136	108	124	130	4.8%	


## 5. Natural gas

 eurostat	LUXEMBOURG								
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		-	-	-	-	-	-	-	-
Total imports		29 434	30 511	31 191	32 311	48 986	49 499	1.0%	
Total exports		-	-	-	-	-	-	-	
Stock changes		-	-	-	-	-	-	-	
Gross inland consumption		29 434	30 511	31 191	32 311	48 986	49 499	1.0%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		-	-	-	3 792	-	-	-	
Algeria		-	-	-	-	-	-	-	
Norway		27 240	28 536	28 775	28 519	-	-	-	
<b>Consumption</b>									
Inputs to electricity plants		1 895	1 962	2 195	2 662	19 541	20 039	2.5%	
Inputs to heat plants		-	-	-	-	-	-	-	
Consumption of energy branch		-	-	-	-	-	-	-	
Distribution losses		101	132	21	-	-	-	-	
Non-energy use		-	-	-	-	-	-	-	
Industry		17 379	18 518	19 191	18 889	18 843	18 496	-1.8%	
<i>among which:</i>									
Iron&steel industry		6 100	6 601	6 868	7 025	8 343	8 231	-1.3%	
Non-ferrous metals		-	-	-	-	-	-	-	
Chemical industry		-	-	-	-	-	-	-	
Non-met. mineral prod.		-	-	-	-	-	-	-	
Food, drink, tobacco		-	-	-	-	-	-	-	
Pulp, paper and print		-	-	-	-	-	-	-	
Engineering & metal		-	-	-	-	-	-	-	
Other industries		11 279	11 917	12 323	11 864	10 500	10 265	-2.2%	
Transport		-	-	-	-	-	-	-	
Services & households etc.		10 058	9 899	9 784	10 760	10 602	10 964	3.4%	
<i>among which:</i>									
Households		10 058	9 899	9 784	10 760	10 602	10 964	3.4%	
Services		-	-	-	-	-	-	-	


## 6.1 Hard coal


 eurostat	LUXEMBOURG							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	152	153	171	152	127	106	-16.5%	
Total exports	-	-	-	-	-	-	-	
Stock changes	-	-	-	-	-	-	-	
Gross inland consumption	152	153	171	152	127	106	-16.5%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	
Poland	-	-	-	-	-	-	-	
CIS	-	-	-	-	-	-	-	
Australia	-	-	-	-	-	-	-	
South Africa	91	90	114	81	55	45	-18.2%	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants								
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry								
<i>among which:</i>								
Iron&steel industry	42	41	39	38	47	42	-10.6%	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	-	-	-	-	-	-	-	
Non-met. mineral prod.	110	112	132	114	80	64	-20.0%	
Food, drink, tobacco	-	-	-	-	-	-	-	
Pulp, paper and print	-	-	-	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	-	-	-	-	-	-	-	
Services & households etc.	-	-	-	-	-	-	-	
<b>Structural data</b>								
Personnel employed underground								
(annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines								
(end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivates and peat

	LUXEMBOURG						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
<i>among which:</i>							
Iron & steel industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	12	13	11	8	8	8	0.0%
<i>among which:</i>							
Industry	8	10	9	6	6	7	16.7%
Services & households	4	3	2	2	2	1	-50.0%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-

## 7. Renewable energy sources


		LUXEMBOURG						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	50	46	57	50	56	60	6.4%
Hydro (excl. pumping)		10	8	10	2	10	7	-31.9%
Wind		1	2	2	2	2	2	4.0%
Solar		-	-	-	0	0	0	279.7%
Geothermal		-	-	-	-	-	-	-
Biomass		40	36	44	46	44	51	14.6%
	<i>among which:</i>							
Wood, wood-waste		15	15	16	16	15	15	0.0%
Municipal solid waste		23	20	27	28	27	31	17.4%
Biogas		2	0	1	2	2	4	80.2%
Gross inland consumption		50	46	57	50	56	60	6.4%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		24	20	28	30	29	36	22.4%
	<i>among which:</i>							
Wood, wood-waste		-	-	-	-	-	-	-
Municipal waste		23	20	27	28	27	31	17.4%
Biogas		2	0	1	2	2	4	80.2%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	15	15	16	16	15	16	0.3%
	<i>by sector:</i>							
Industry		-	-	-	-	-	-	-
Services & households etc.		15	15	16	16	15	16	0.3%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		15	15	16	16	15	15	0.0%
	<i>among which:</i>							
Wood, wood-waste		15	15	16	16	15	15	0.0%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	1	1	1	0.0%
Hydro with installed capacity < 1 MW		5	5	6	6	5	5	0.0%
Hydro with installed capacity > 1 & <10 MW		118	80	114	127	108	72	-33.3%
Hydro with installed capacity > 10 MW		-	-	-	-	-	-	-
Wood, Wood-waste		-	-	-	-	-	-	-
Municipal waste		45	50	52	51	52	48	-7.7%
Biogas		1	1	4	8	9	17	88.9%

		LUXEMBOURG						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		-	-	-	-	-	18	
Hydro with installed capacity < 1 MW		1	2	2	2	2	2	0.0%
Hydro with installed capacity > 1 & <10 MW		34	36	36	26	36	37	2.8%
Hydro with installed capacity > 10 MW		-	-	-	-	-	-	-
Wood, Wood-waste		-	-	-	-	-	-	-
Municipal waste		9	9	9	9	9	9	0.0%
Biogas		-	-	-	-	-	-	-
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	-	-	-	-
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	2	2	2	2	2	3	50.0%




# 1. Energy economy

## Key figures and energy indicators

		MAGYARORSZÁG					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	11 467	11 378	11 127	10 763	11 134	10 504
Net energy imports		14 352	13 921	14 011	13 881	14 744	16 333
Net oil imports		6 093	5 446	5 352	4 828	4 780	4 795
Net gas imports		7 080	7 316	7 283	7 783	8 705	9 940
Gross inland energy consumption		25 089	25 347	24 941	25 389	25 872	26 744
Final energy consumption		15 598	15 851	15 799	16 400	17 013	17 559
Industry		3 666	3 508	3 490	3 580	3 750	3 515
Transport		3 069	3 257	3 251	3 399	3 579	3 619
Services and households etc.		8 863	9 086	9 058	9 421	9 684	10 425
Gross electricity generation	GWh	37 188	37 719	35 191	36 417	36 160	34 141
Final electricity consumption		28 972	28 938	29 441	30 543	31 484	31 396
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	37 904	39 479	41 533	43 132	44 639	45 953
Population	1000 per.	10 280	10 253	10 222	10 200	10 175	10 142
Industry added value	Mio EUR	11 200	11 952	12 908	13 050	13 438	13 975
Total imports (current prices)	Mio EUR	25 404	28 783	34 608	36 429	38 792	43 077
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	661.9	642.1	600.5	588.6	579.6	582.0
Final energy consumption / GDP(95)		411.5	401.5	380.4	380.2	381.1	382.1
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		327.3	293.5	270.4	274.3	279.1	251.6
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		145.8	143.1	141.0	142.9	130.5	130.4
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 441	2 472	2 440	2 489	2 543	2 637
Final energy consumption / capita		1 517	1 546	1 546	1 608	1 672	1 731
Household consumption / capita		505	523	517	539	583	650
Electricity consumption / capita	kWh/cap.	3 675	3 776	3 762	3 863	3 953	4 033
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	57.2	54.9	56.2	54.7	57.0	61.1
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	62.2	62.5	63.3	64.6	65.8	65.7
Efficiency of thermal power stations		49.1	50.2	49.9	50.9	48.7	47.1

## 2. Energy balance

### Principal aggregates by product

 eurostat	MAGYARORSZAG						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	11 467	11 378	11 127	10 763	11 134	10 504	-5.7%
<i>among which:</i> Hard coal	243	-	-	-	-	-	-
Lignite and peat	2 802	2 951	2 893	2 664	2 683	2 709	1.0%
Crude oil	1 845	1 796	1 665	1 560	1 595	1 612	1.1%
Natural Gas	2 965	2 624	2 475	2 477	2 356	2 286	-3.0%
Nuclear heat	3 599	3 636	3 658	3 644	3 599	2 841	-21.1%
Hydro-electricity	13	16	15	16	17	15	-11.9%
Biomass	-	351	416	385	785	817	4.1%
<b>Imports</b>							
Total	16 541	16 242	16 433	16 875	18 031	19 512	8.2%
<i>among which:</i> Hard coal	1 137	1 068	1 116	835	678	888	30.9%
Crude oil and feedstocks	6 226	5 846	5 867	5 706	5 153	5 466	6.1%
Petroleum products	1 698	1 522	1 188	1 397	2 153	1 845	-14.3%
Natural Gas	7 081	7 320	7 347	7 786	8 705	9 940	14.2%
Electricity	288	374	819	894	1 084	1 210	11.7%
<b>Exports</b>							
Total	2 189	2 321	2 422	2 994	3 287	3 179	-3.3%
<i>among which:</i> Crude oil and feedstocks	-	2	1	-	-	-	-
Petroleum products	1 831	1 920	1 703	2 275	2 525	2 515	-0.4%
Natural gas	2	4	65	3	-	-	-
Electricity	225	283	523	622	718	614	-14.5%
<b>Gross inland consumption</b>							
Total	25 089	25 347	24 941	25 389	25 872	26 744	3.4%
<i>among which:</i> Solid fuels	4 165	4 142	3 967	3 640	3 601	3 740	3.9%
Crude oil and petrol. prod.	7 473	7 202	6 927	6 703	6 599	6 756	2.4%
Natural gas	9 776	9 905	9 657	10 711	10 805	11 886	10.0%
Nuclear Energy	3 599	3 636	3 658	3 644	3 599	2 841	-21.1%
Renewables	13	371	436	409	889	920	3.4%
<b>Transformation input</b>							
Total	20 121	19 639	18 871	18 841	18 125	18 027	-0.5%
<i>among which:</i> Crude oil and feedstocks	8 074	7 768	7 588	7 649	7 403	7 451	0.6%
Petroleum products	1 629	1 379	1 082	1 060	619	474	-23.4%
Hard coal	1 298	914	955	693	435	669	53.7%
Lignite and peat	2 790	2 982	2 723	2 612	2 612	2 653	1.6%
Renewables	-	26	63	65	75	95	26.2%
<b>Transformation output</b>							
Total	14 056	13 667	13 273	13 148	12 340	12 447	0.9%
<i>among which:</i> Electricity	3 184	3 237	3 011	3 115	3 092	2 921	-5.5%
Heat	1 689	1 726	1 645	1 701	1 474	1 523	3.3%



in 1 000 toe

**MAGYARORSZAG**

**1998 1999 2000 2001 2002 2003 03/02**

**Final energy consumption**

Total	15 598	15 851	15 799	16 400	17 013	17 559	3.2%
<i>among which:</i> Solid fuels	620	704	792	668	694	684	-1.3%
Petroleum products	4 076	4 279	4 174	4 152	4 443	4 442	0.0%
Natural Gas	6 394	6 441	6 366	7 009	6 988	7 509	7.5%
Renewables	324	322	353	320	710	691	-2.7%
Electricity	2 491	2 488	2 531	2 626	2 707	2 700	-0.3%

**Final energy consumption by sector**

**Industry**

Total	3 666	3 508	3 490	3 580	3 750	3 515	-6.3%
<i>among which:</i> Solid fuels	371	461	447	423	427	408	-4.4%
Petroleum Products	317	332	268	209	324	370	14.1%
Natural Gas	1 660	1 408	1 370	1 560	1 572	1 468	-6.6%
Renewables	-	-	-	-	-	-	-
Electricity	712	731	757	811	882	824	-6.5%


**Transport**

Total	3 069	3 257	3 251	3 399	3 579	3 619	1.1%
<i>among which:</i> Motor spirit	1 460	1 477	1 408	1 464	1 500	1 499	-0.1%
Diesel oil	1 336	1 485	1 532	1 621	1 782	1 773	-0.5%
Jet fuel	192	206	219	218	205	201	-2.0%
Electricity	81	86	87	89	87	90	3.0%


**Services&households**

Total	8 863	9 086	9 058	9 421	9 684	10 425	7.6%
<i>among which:</i> Solid fuels	249	244	341	240	267	274	2.6%
Gas oil	363	354	346	290	293	272	-7.2%
Natural Gas	4 733	5 032	4 994	5 447	5 414	6 039	11.5%
Renewables	324	322	353	320	710	691	-2.7%
Electricity	1 698	1 672	1 688	1 726	1 738	1 786	2.7%
Heat	1 086	1 036	930	1 041	846	1 008	19.2%


### 3.1 Electricity balance

 eurostat	MAGYARORSZAG							
	in GWh		1998	1999	2000	2001	2002	2003
<b>Generation</b>								
Total gross generation		37 188	37 719	35 191	36 417	36 160	34 141	-5.6%
<i>among which:</i>								
Hydro		155	181	178	186	194	171	-11.9%
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Nuclear		13 949	14 661	14 180	14 126	13 953	11 013	-21.1%
Conventional thermal		23 084	22 877	20 833	22 105	22 013	22 957	4.3%
<i>of which:</i>								
Hard coal		-	-	67	50	93	307	230.1%
Lignite and peat		9 557	9 505	9 523	8 789	8 890	8 863	-0.3%
Petroleum products		5 963	5 306	4 404	4 193	2 137	1 626	-23.9%
Natural gas		7 329	7 822	6 612	8 866	10 740	11 883	10.6%
Derived gases		130	-	117	84	80	84	5.0%
Biomass		105	244	110	115	73	194	165.8%
Industrial wastes		-	-	-	8	-	-	-
Total net generation		34 258	34 903	32 259	33 701	33 479	31 375	-6.3%
<b>Imports and exports</b>								
Total imports		3 354	4 349	9 523	10 403	12 605	14 077	11.7%
Total exports		2 614	3 286	6 083	7 232	8 349	7 138	-14.5%
<b>Consumption and losses</b>								
Consumption of the energy branch		4 040	5 064	4 350	4 370	4 531	5 448	20.2%
<i>of which:</i>								
Consumption for pumped-storage		-	-	-	-	-	-	-
Network losses		4 916	4 892	4 840	4 676	4 399	4 240	-3.6%
Final energy consumption		28 972	28 938	29 441	30 543	31 484	31 396	-0.3%
<i>of which:</i>								
Industry		8 285	8 503	8 799	9 434	10 255	9 585	-6.5%
<i>among which:</i>								
Iron&steel industry		592	561	579	644	685	645	-5.8%
Non-ferrous metals		949	839	989	514	1 085	1 053	-2.9%
Chemical industry		2 401	2 894	2 803	3 057	3 048	2 050	-32.7%
Non-met. mineral prod.		912	910	871	971	977	966	-1.1%
Food, drink, tobacco		1 189	1 104	1 092	1 389	1 403	1 538	9.6%
Pulp, paper and print		496	478	510	464	450	490	8.9%
Engineering & metal		821	809	869	1 252	1 432	1 551	8.3%
Other industries		598	625	759	849	885	974	10.1%
Transport		943	995	1 015	1 031	1 015	1 045	3.0%
Services & households etc.		19 744	19 440	19 627	20 078	20 214	20 766	2.7%
<i>among which:</i>								
Households		9 976	9 833	9 792	10 130	10 440	11 063	6.0%


## 3.2 Electrical capacity, fuel inputs and heat


		MAGYARORSZAG						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	7 850	7 842	8 282	8 392	8 513	8 708	2.3%
<i>by source:</i>								
Conventional thermal		5 959	5 954	6 383	6 478	6 599	6 788	2.9%
<i>of which:</i>								
Steam		5 153	5 170	5 020	5 022	5 001	5 012	0.2%
Gas turbine		442	410	580	580	410	691	68.5%
Combined cycle		364	374	783	876	986	835	-15.3%
Internal combustion		-	-	-	-	-	-	-
Nuclear		1 843	1 840	1 851	1 866	1 866	1 866	0.0%
Hydro		48	48	48	48	48	54	12.5%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		7 668	7 650	8 084	8 196	8 317	8 126	-2.3%
Autoproducers		182	192	198	196	196	585	198.5%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	6 549	6 572	6 011	6 106	5 939	6 398	7.7%
<i>among which:</i>								
Hard coal		248	-	23	16	27	101	278.1%
Lignite and peat		2 764	2 956	2 708	2 556	2 567	2 615	1.8%
Petroleum products		1 489	1 298	1 052	1 039	583	458	-21.5%
Natural gas		2 008	2 171	2 038	2 325	2 584	3 052	18.1%
Renewables		-	26	60	63	70	91	30.4%
Heating plants		630	518	447	569	569	604	6.0%
<i>among which:</i>								
Hard coal		2	2	-	1	1	6	984.0%
Lignite and peat		3	2	1	44	45	34	-23.3%
Petroleum products		127	73	21	16	15	16	6.3%
Natural gas		451	434	417	499	496	502	1.2%
Renewables		8	7	8	10	13	11	-15.1%
<b>Heat production and consumption</b>								
Total heat production	TJ	1 689	1 726	1 645	1 701	1 474	1 523	3.3%
<i>among which: in heating plants</i>								
		440	437	421	477	461	470	1.9%
Heat consumption		1 513	1 489	1 440	1 517	1 297	1 362	5.0%
<i>of which: in industry</i>								
		427	453	510	476	451	353	-21.6%
<i>in households and services</i>								
		1 086	1 036	930	1 041	846	1 008	19.2%
<i>among which: in households</i>								
		757	742	668	748	607	709	16.9%

## 4.1 Crude oil and feedstocks

 eurostat	MAGYARORSZAG						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 t</i>							
<b>Primary production and supply</b>							
Primary production	1 823	1 777	1 649	1 540	1 582	1 597	0.9%
Total imports	6 151	5 786	5 809	5 634	5 110	5 413	5.9%
Total exports	-	2	1	-	-	-	-
Stock changes	-206	21	-81	212	21	-6	-128.6%
Refinery intake	7 976	7 687	7 512	7 551	7 336	7 376	0.5%
<b>Imports of Crude Oil by origin</b>							
<i>by region of origin:</i>							
OPEC	-	-	-	-	-	-	-
Near and Middle East	-	-	-	-	-	-	-
Africa	-	-	-	-	-	-	-
<i>by country of origin:</i>							
Algeria	-	-	-	-	-	-	-
Nigeria	-	-	-	-	-	-	-
Saudi Arabia	-	-	-	-	-	-	-
Kuwait	-	-	-	-	-	-	-
United Arab Emirates	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
<b>Refining capacity</b>							
Capacity at the end of year	<i>1 000 t/year</i>		-	-	-	-	-
<i>among which:</i>							
Cracking and others	-	-	-	-	-	-	-
Reforming	-	-	-	-	-	-	-


## 4.2 Petroleum products

 eurostat	MAGYARORSZAG							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	7 992	7 659	7 483	7 450	7 164	7 245	1.1%	
<i>among which:</i>								
Motor spirit	1 478	1 418	1 253	1 403	1 573	1 477	-6.1%	
Kerosene and jet fuel	209	196	201	179	184	202	9.8%	
Naphtha	798	734	803	760	742	835	12.5%	
Gas/diesel oil	2 586	2 525	2 466	2 547	3 096	3 142	1.5%	
Residual fuel oil	1 253	1 533	1 442	1 291	358	367	2.5%	
Total imports	1 713	1 517	1 170	1 372	2 135	1 827	-14.4%	
Total exports	1 810	1 887	1 695	2 249	2 532	2 545	0.5%	
Bunkers	-	-	-	-	-	-	-	
Stock changes	-245	-66	-6	103	125	-129	-203.2%	
Gross inland consumption	-342	-436	-531	-774	-272	-715	-162.9%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	-	-	-	-	-	-	-	
United Kingdom	-	-	-	-	-	-	-	
Norway	-	-	-	-	-	-	-	
OPEC	-	-	-	-	-	-	-	
Imports by product								
<i>among which:</i>								
Motor spirit	191	209	178	244	292	288	-1.4%	
Kerosene and jet fuel	19	48	40	50	59	-	-	
Gas/diesel oil	267	287	352	530	992	923	-7.0%	
Residual fuel oil	923	618	247	158	503	404	-19.7%	
Exports by product								
<i>among which:</i>								
Motor spirit	356	415	312	504	496	343	-30.8%	
Kerosene and jet fuel	32	39	14	11	47	5	-89.4%	
Gas/diesel oil	859	904	788	957	1 293	1 376	6.4%	
Residual fuel oil	-	9	172	242	54	83	53.7%	
<b>Consumption</b>								
Inputs to electricity plants	1 558	1 359	1 101	1 084	604	478	-20.9%	
Inputs to heating plants	133	76	22	16	16	17	6.3%	
Non-energy use	1 345	1 003	1 244	1 004	1 113	1 114	0.1%	
Final energy consumption	3 964	4 169	4 061	4 035	4 330	4 346	0.4%	
Industry	327	345	277	212	337	400	18.7%	
<i>among which by product:</i>								
Gas/diesel oil	16	12	19	43	120	114	-5.0%	
Residual fuel oil	288	322	242	143	149	160	7.4%	


 eurostat	MAGYARORSZAG							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		21	43	44	1	-	-	-
Non-ferrous metals		4	2	3	2	-	2	-
Chemical industry		81	66	43	14	37	27	-27.0%
Non-met. mineral prod.		165	148	97	72	101	191	89.1%
Food, drink, tobacco		15	47	60	68	55	22	-60.0%
Pulp, paper and print		8	15	8	10	10	7	-30.0%
Engineering & metal		11	9	8	6	5	10	100.0%
Other industries		9	6	6	14	7	14	100.0%
<b>Transport</b>		2 898	3 078	3 069	3 211	3 393	3 424	0.9%
<i>among which:</i>								
Motor spirit		1 389	1 405	1 340	1 393	1 427	1 426	-0.1%
Jet fuel		187	201	213	212	200	196	-2.0%
Diesel oil		1 322	1 470	1 516	1 604	1 764	1 755	-0.5%
<b>Services &amp; households etc.</b>		739	746	715	612	600	522	-13.0%
<i>among which:</i>								
Gas oil		359	350	342	287	290	269	-7.2%
Residual fuel oil		49	81	48	55	34	17	-50.0%
<b>Stocks at end of period</b>								
Crude oil and feedstocks		1 634	1 592	1 757	1 333	1 263	1 294	2.5%
Petroleum products		2 368	2 434	2 381	2 269	2 145	2 274	6.0%




## 5. Natural gas

 eurostat	MAGYARORSZAG							
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		137 951	122 074	115 143	115 224	109 582	106 329	-3.0%
Total imports		329 423	340 509	341 792	362 207	404 952	462 396	14.2%
Total exports		76	173	3 004	134	-	-	-
Stock changes		-12 505	-1 627	-4 699	20 962	-11 863	-15 786	-33.1%
Gross inland consumption		454 793	460 783	449 232	498 259	502 671	552 939	10.0%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		93 399	100 991	94 810	108 136	120 219	142 000	18.1%
Inputs to heat plants		20 993	20 172	19 410	23 225	23 092	23 372	1.2%
Consumption of energy branch		13 984	12 701	9 298	9 659	8 132	8 005	-1.6%
Distribution losses		14 940	14 795	14 552	15 719	13 326	15 561	16.8%
Non-energy use		13 972	12 461	15 187	15 408	9 680	10 188	5.2%
Industry		77 231	65 493	63 741	72 574	73 117	68 291	-6.6%
<i>among which:</i>								
Iron&steel industry		6 584	5 656	5 837	6 650	7 083	6 085	-14.1%
Non-ferrous metals		4 611	4 381	4 749	5 412	5 450	5 106	-6.3%
Chemical industry		17 332	13 312	12 528	12 013	11 387	10 047	-11.8%
Non-met. mineral prod.		16 902	14 282	15 211	17 459	16 851	15 292	-9.3%
Food, drink, tobacco		15 496	13 664	12 058	16 321	16 986	15 698	-7.6%
Pulp, paper and print		3 633	2 971	2 855	3 186	3 502	3 720	6.2%
Engineering & metal		8 853	8 036	7 240	7 663	7 947	8 568	7.8%
Other industries		2 151	1 854	2 093	2 498	2 429	2 305	-5.1%
Transport		29	44	78	86	89	93	4.5%
Services & households etc.		220 201	234 080	232 311	253 399	251 861	280 939	11.5%
<i>among which:</i>								
Households		130 666	140 936	136 227	148 127	152 669	179 256	17.4%
Services		79 752	82 755	86 998	95 154	88 973	92 292	3.7%


## 6.1 Hard coal


 in 1 000 t	MAGYARORSZAG						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>							
Primary production	813	-	-	-	-	-	-
Total imports	1 606	1 519	1 664	1 220	1 080	1 403	29.9%
Total exports	-	-	-	-	-	-	-
Stock changes	58	69	14	89	28	39	39.3%
Gross inland consumption	2 477	1 588	1 678	1 309	1 108	1 442	30.1%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
USA	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-
<b>Consumption</b>							
Inputs to electricity plants	824	-	51	30	49	188	283.7%
Inputs to heat plants	7	4	-	1	1	11	1000.0%
Consumption of energy branch	-	-	-	-	-	-	-
Industry	55	144	112	144	116	65	-44.0%
<i>among which:</i>							
Iron&steel industry	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-
Chemical industry	-	-	-	-	-	-	-
Non-met. mineral prod.	52	142	112	141	112	65	-42.0%
Food, drink, tobacco	-	-	-	-	-	-	-
Pulp, paper and print	-	-	-	-	-	-	-
Engineering & metal	-	-	-	-	-	-	-
Other industries	-	-	-	-	-	-	-
Services & households etc.	167	162	209	192	387	407	5.2%
<b>Structural data</b>							
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-

## 6.2 Coal derivatives and peat

	MAGYARORSZAG						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	966	919	937	682	432	593	37.3%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	13 837	14 547	14 033	13 914	13 027	13 301	2.1%
Brown coal briquettes	151	133	90	90	4	29	625.0%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	7 854	7 005	7 784	4 405	2 848	4 416	55.1%
Blast-furnace gas	7 069	6 927	7 617	6 749	7 242	6 502	-10.2%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	492	542	506	486	498	514	3.2%
<i>among which:</i>							
Iron & steel industry	449	504	480	455	464	482	3.9%
Services & households	12	18	13	11	9	8	-11.1%
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	539	543	1 043	544	244	235	-3.7%
<i>among which:</i>							
Industry	33	27	131	40	29	37	27.6%
Services & households	506	516	900	490	215	190	-11.6%
Brown coal briquettes	166	142	73	73	61	57	-6.6%
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	166	142	73	73	61	57	-6.6%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	3 579	2 788	3 057	1 242	538	1 412	162.5%
Blast-furnace gas	4 274	2 639	3 016	2 655	3 020	2 378	-21.3%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	1 723	5 096	5 541	4 523	4 585	3 467	-24.4%
Inputs to heat plants	1 645	-	-	-	-	1 455	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	7 853	5 427	6 073	3 897	3 558	3 790	6.5%


## 7. Renewable energy sources

		MAGYARORSZAG						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	13	371	436	409	889	920	3.4%
Hydro (excl. pumping)		13	16	15	16	17	15	-11.9%
Wind		-	-	-	-	-	-	-
Solar		-	-	-	1	2	2	8.6%
Geothermal		-	4	5	6	86	86	0.0%
Biomass		-	351	416	385	785	817	4.1%
	<i>among which:</i>							
Wood, wood-waste		-	325	356	323	734	777	5.8%
Municipal solid waste		-	26	60	62	48	36	-24.5%
Biogas		-	-	-	2	3	5	43.6%
Gross inland consumption		13	371	436	409	889	920	3.4%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		8	7	6	7	7	7	-3.9%
Biomass		-	26	63	65	75	95	26.2%
	<i>among which:</i>							
Wood, wood-waste		-	-	3	3	24	54	123.2%
Municipal waste		-	26	60	62	48	36	-24.5%
Biogas		-	-	-	2	3	4	29.3%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	324	327	358	327	790	770	-2.6%
	<i>by sector:</i>							
Industry		-	-	-	-	-	-	-
Services & households etc.		324	327	358	327	790	770	-2.6%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		324	322	353	320	710	691	-2.7%
	<i>among which:</i>							
Wood, wood-waste		324	322	353	320	710	691	-2.7%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
Geothermal		-	4	5	6	79	78	-1.5%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		:	6	5	6	6	5	-16.7%
Hydro with installed capacity > 1 & <10 MW		:	31	40	27	22	19	-13.6%
Hydro with installed capacity > 10 MW		:	144	133	153	166	147	-11.4%
Wood, Wood-waste		-	3	3	3	5	109	2080.0%
Municipal waste		105	111	110	112	59	67	13.6%
Biogas		-	-	-	-	-	-	-

	MAGYARORSZAG						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	:	8	1	1	1	1	0.0%
Hydro with installed capacity > 1 & <10 MW	:	1	8	8	8	8	0.0%
Hydro with installed capacity > 10 MW	:	39	39	39	39	39	0.0%
Wood, Wood-waste	-	1	1	1	44	43	-2.3%
Municipal waste	24	24	24	24	25	25	0.0%
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		MALTA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	-	-	-	-	-	-
Net energy imports		1 019	1 015	862	762	899	896p
Net oil imports		1 019	1 015	862	762	899	896p
Net gas imports		-	-	-	-	-	-
Gross inland energy consumption		974	968	834	740	877	874p
Final energy consumption		529	551	501	387	452	461p
Industry		39	40	43	42	44	48
Transport		321	335	319	223	280	286
Services and households etc.		169	176	139	123	128	127p
Gross electricity generation	GWh	1 721	1 792	1 917	1 987	2 052	2 236
Final electricity consumption		1 402	1 460	1 567	1 569	1 657	1 817
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	2 800	2 913	3 100	3 087	3 119	3 060
Population	1000 per.	377	379	380	391	395	397
Industry added value	Mio EUR	:	:	:	:	:	:
Total imports (current prices)	Mio EUR	:	2 786	3 077	2 812	2 745	2 940
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	347.7	332.3	268.9	239.7	281.1	285.6
Final energy consumption / GDP(95)		189.0	189.0	161.7	125.4	144.9	150.7
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 586	2 558	2 192	1 890	2 222	2 200
Final energy consumption / capita		1 405	1 455	1 319	989	1 146	1 161
Household consumption / capita		325	337	229	166	172	183
Electricity consumption / capita	kWh/cap.	4 571	4 734	5 042	4 964	5 200	5 628
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	100.0	100.0	100.7	100.0	100.0	100.0
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	54.3	56.9	60.1	52.3	51.6	52.8
Efficiency of thermal power stations		28.6	28.6	32.4	34.3	31.1	33.8

## 2. Energy balance

### Principal aggregates by product

 eurostat	MALTA						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	-	-	-	-	-	-	-
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-
<b>Imports</b>							
Total	1 070	1 015	862	762	899	896p	-0.3%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	1 070	1 015	862	762	899	896p	-0.3%
Natural Gas	-	-	-	-	-	-	-
Electricity	-	-	-	-	-	-	-
<b>Exports</b>							
Total	52	-	-	-	-	-	-
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	52	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-
Electricity	-	-	-	-	-	-	-
<b>Gross inland consumption</b>							
Total	974	968	834	740	877	874p	-0.3%
<i>among which:</i> Solid fuels	-	-	-	-	-	-	-
Crude oil and petrol. prod.	974	968	834	740	877	874p	-0.3%
Natural gas	-	-	-	-	-	-	-
Nuclear Energy	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
<b>Transformation input</b>							
Total	518	539	509	488	567	569	0.3%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	518	539	509	488	567	569	0.3%
Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
<b>Transformation output</b>							
Total	148	154	165	167	176	192	9.0%
<i>among which:</i> Electricity	148	154	165	167	176	192	9.0%
Heat	-	-	-	-	-	-	-

**Final energy consumption**

Total	529	551	501	387	452	461p	2.0%
<i>among which:</i> Solid fuels	-	-	-	-	-	-	-
Petroleum products	409	425	367	252	310	305p	-1.5%
Natural Gas	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
Electricity	121	126	135	135	142	156	9.7%

**Final energy consumption by sector**
**Industry**

Total	39	40	43	42	44	48	9.0%
<i>among which:</i> Solid fuels	-	-	-	-	-	-	-
Petroleum Products	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
Electricity	39	40	43	42	44	48	9.0%

**Transport**


Total	321	335	319	223	280	286	2.2%
<i>among which:</i> Motor spirit	85	88	75	54	74	74	0.0%
Diesel oil	69	72	134	76	117	119	1.7%
Jet fuel	167	175	110	93	89	93	4.6%
Electricity	-	-	-	-	-	-	-

**Services&households**


Total	169	176	139	123	128	127p	-0.7%
<i>among which:</i> Solid fuels	-	-	-	-	-	-	-
Gas oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
Electricity	82	85	91	93	99	108	9.9%
Heat	-	-	-	-	-	-	-




### 3.1 Electricity balance

 eurostat	MALTA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	1 721	1 792	1 917	1 987	2 052	2 236	9.0%
<i>among which:</i>							
Hydro	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	1 721	1 792	1 917	1 987	2 052	2 236	9.0%
<i>of which:</i>							
Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	1 721	1 792	1 917	1 987	2 052	2 236	9.0%
Natural gas	-	-	-	-	-	-	-
Derived gases	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-
Industrial wastes	-	-	-	-	-	-	-
Total net generation	1 612	1 679	1 802	1 867	1 927	2 111	9.5%
<b>Imports and exports</b>							
Total imports	-	-	-	-	-	-	-
Total exports	-	-	-	-	-	-	-
<b>Consumption and losses</b>							
Consumption of the energy branch	109	113	115	118	125	125	0.0%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	210	219	235	256	270	294	8.9%
Final energy consumption	1 402	1 460	1 567	1 569	1 657	1 817	9.7%
<i>of which:</i>							
Industry	451	469	504	483	510	556	9.0%
<i>among which:</i>							
Iron&steel industry	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-
Chemical industry	-	-	-	-	-	-	-
Non-met. mineral prod.	-	-	-	-	-	-	-
Food, drink, tobacco	-	-	-	-	-	-	-
Pulp, paper and print	-	-	-	-	-	-	-
Engineering & metal	-	-	-	-	-	-	-
Other industries	451	469	504	483	510	556	9.0%
Transport	-	-	-	-	-	-	-
Services & households etc.	951	991	1 063	1 086	1 147	1 261	9.9%
<i>among which:</i>							
Households	500	521	559	540	570	627	10.0%


## 3.2 Electrical capacity, fuel inputs and heat


 eurostat	MALTA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	460	488	515	515	515	354	-31.3%
<i>by source:</i>								
Conventional thermal		460	488	515	515	515	354	-31.3%
<i>of which:</i>								
Steam		355	328	300	300	300	206	-31.3%
Gas turbine		105	105	105	105	105	72	-31.4%
Combined cycle		-	55	110	110	110	76	-30.9%
Internal combustion		-	-	-	-	-	-	-
Nuclear		-	-	-	-	-	-	-
Hydro		-	-	-	-	-	-	-
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		460	488	515	515	515	354	-31.3%
Autoproducers		-	-	-	-	-	-	-
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	518	539	509	488	567	569	0.3%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		518	539	509	488	567	569	0.3%
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	-	-	-	-	-	-	-
<i>among which: in heating plants</i>								
Heat consumption		-	-	-	-	-	-	-
<i>of which: in industry</i>								
in households and services		-	-	-	-	-	-	-
<i>among which: in households</i>								
		-	-	-	-	-	-	-

## 4.1 Crude oil and feedstocks


 eurostat	<i>in 1 000 t</i>	MALTA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		-	-	-	-	-	-	-
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Refinery intake		-	-	-	-	-	-	-
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	<i>1 000 t/year</i>	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	MALTA							
	in 1 000 t							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Production and supply</b>								
Total refinery output	-	-	-	-	-	-	-	-
<i>among which:</i>								
Motor spirit	-	-	-	-	-	-	-	-
Kerosene and jet fuel	-	-	-	-	-	-	-	-
Naphtha	-	-	-	-	-	-	-	-
Gas/diesel oil	-	-	-	-	-	-	-	-
Residual fuel oil	-	-	-	-	-	-	-	-
Total imports	1 083	1 030	875	780	918	911p	-0.8%	
Total exports	51	-	-	-	-	-	-	
Bunkers	46	48	23	23	23	23p	0.0%	
Stock changes	-	-	-6	-	-	-	-	
Gross inland consumption	986	982	846	757	895	888p	-0.8%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	-	-	-	-	-	-	-	
United Kingdom	-	-	-	-	-	-	-	
Norway	-	-	-	-	-	-	-	
OPEC	-	-	-	-	-	-	-	
Imports by product								
<i>among which:</i>								
Motor spirit	81	84	70	51	70	70	0.0%	
Kerosene and jet fuel	262	229	123	91	87	91	4.6%	
Gas/diesel oil	157	110	201	117	181	181	0.0%	
Residual fuel oil	549	572	453	489	548	552	0.7%	
Exports by product								
<i>among which:</i>								
Motor spirit	-	-	-	-	-	-	-	
Kerosene and jet fuel	-	-	-	-	-	-	-	
Gas/diesel oil	51	-	-	-	-	-	-	
Residual fuel oil	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	541	563	529	508	590	592	0.3%	
Inputs to heating plants	-	-	-	-	-	-	-	
Non-energy use	4	4	-	-	-	-	-	
Final energy consumption	399	415	360	249	305	296p	-3.0%	
Industry								
<i>among which by product:</i>								
Gas/diesel oil	-	-	-	-	-	-	-	
Residual fuel oil	-	-	-	-	-	-	-	

 eurostat	MALTA							
	in 1 000 t		1998	1999	2000	2001	2002	2003
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		-	-	-	-	-	-	-
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		-	-	-	-	-	-	-
Non-met. mineral prod.		-	-	-	-	-	-	-
Food, drink, tobacco		-	-	-	-	-	-	-
Pulp, paper and print		-	-	-	-	-	-	-
Engineering & metal		-	-	-	-	-	-	-
Other industries		-	-	-	-	-	-	-
<b>Transport</b>		312	325	311	217	273	279	2.2%
<i>among which:</i>								
Motor spirit		81	84	71	51	70	70	0.0%
Jet fuel		163	170	107	91	87	91	4.6%
Diesel oil		68	71	133	75	116	118	1.7%
<b>Services &amp; households etc.</b>		87	90	49	32	32	17p	-46.9%
<i>among which:</i>								
Gas oil		-	-	-	-	-	-	-
Residual fuel oil		-	-	-	-	-	-	-
<b>Stocks at end of period</b>								
Crude oil and feedstocks		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-


## 5. Natural gas

 eurostat	in TJ (GCV)	MALTA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		-	-	-	-	-	-	-
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Gross inland consumption		-	-	-	-	-	-	-
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		-	-	-	-	-	-	-
Inputs to heat plants		-	-	-	-	-	-	-
Consumption of energy branch		-	-	-	-	-	-	-
Distribution losses		-	-	-	-	-	-	-
Non-energy use		-	-	-	-	-	-	-
Industry		-	-	-	-	-	-	-
<i>among which:</i>								
Iron&steel industry		-	-	-	-	-	-	-
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		-	-	-	-	-	-	-
Non-met. mineral prod.		-	-	-	-	-	-	-
Food, drink, tobacco		-	-	-	-	-	-	-
Pulp, paper and print		-	-	-	-	-	-	-
Engineering & metal		-	-	-	-	-	-	-
Other industries		-	-	-	-	-	-	-
Transport		-	-	-	-	-	-	-
Services & households etc.		-	-	-	-	-	-	-
<i>among which:</i>								
Households		-	-	-	-	-	-	-
Services		-	-	-	-	-	-	-

## 6.1 Hard coal


 eurostat	MALTA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	-	-	-	-	-	-	-	-
Total exports	-	-	-	-	-	-	-	-
Stock changes	-	-	-	-	-	-	-	-
Gross inland consumption	-	-	-	-	-	-	-	-
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants								
Inputs to heat plants	-	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-	-
Industry								
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-	-
Chemical industry	-	-	-	-	-	-	-	-
Non-met. mineral prod.	-	-	-	-	-	-	-	-
Food, drink, tobacco	-	-	-	-	-	-	-	-
Pulp, paper and print	-	-	-	-	-	-	-	-
Engineering & metal	-	-	-	-	-	-	-	-
Other industries	-	-	-	-	-	-	-	-
Services & households etc.	-	-	-	-	-	-	-	-
<b>Structural data</b>								
Personnel employed underground								
(annual mean in 1000's)	-	-	-	-	-	-	-	-
Number of active hard coal mines								
(end of year)	-	-	-	-	-	-	-	-


## 6.2 Coal derivatives and peat

	MALTA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
<i>among which:</i>							
Iron & steel industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-




## 7. Renewable energy sources

	MALTA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total primary production	<i>in 1000 toe</i>						
Hydro (excl. pumping)	-	-	-	-	-	-	-
Wind	-	-	-	-	-	-	-
Solar	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-
<i>among which:</i>							
Wood, wood-waste	-	-	-	-	-	-	-
Municipal solid waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
Gross inland consumption	-	-	-	-	-	-	-
<b>Inputs to electricity and heat production</b>							
	<i>in 1000 toe</i>						
Geothermal	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-
<i>among which:</i>							
Wood, wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Final consumption of RES (excl. electricity)</b>							
Total	<i>in 1000 toe</i>						
<i>by sector:</i>							
Industry	-	-	-	-	-	-	-
Services & households etc.	-	-	-	-	-	-	-
Transport	-	-	-	-	-	-	-
<i>by source:</i>							
Biomass	-	-	-	-	-	-	-
<i>among which:</i>							
Wood, wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
<b>Electricity generation from RES</b>							
	<i>in GWh</i>						
Solar photovoltaics	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	-	-	-	-	-	-	-
Hydro with installed capacity > 1 & <10 MW	-	-	-	-	-	-	-
Hydro with installed capacity > 10 MW	-	-	-	-	-	-	-
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-

	MALTA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	-	-	-	-	-	-	-
Hydro with installed capacity > 1 & <10 MW	-	-	-	-	-	-	-
Hydro with installed capacity > 10 MW	-	-	-	-	-	-	-
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		NEDERLAND					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	62 684	59 209	56 912	60 634	60 131	58 393
Net energy imports		23 462	25 889	34 275	31 409	31 294	35 314
Net oil imports		36 471	36 648	41 673	41 694	40 192	40 921
Net gas imports		-22 688	-19 542	-17 191	-20 172	-18 450	-16 204
Gross inland energy consumption		75 006	74 475	75 655	77 587p	78 195p	80 455
Final energy consumption		49 615	48 790	50 066	50 700	50 547	51 937
Industry		13 151	12 798	13 754	13 697	13 686	14 657
Transport		13 608	13 767	13 820	14 233	14 578	14 672
Services and households etc.		22 855	22 226	22 493	22 769	22 283	22 608
Gross electricity generation	GWh	90 898	86 396	89 615	93 747	95 965	96 775
Final electricity consumption		92 744	94 722	97 938	99 428	99 736	100 359
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	354 286	368 442	381 214	386 654	388 852	385 436
Population	1000 per.	15 654	15 760	15 864	15 987	16 105	16 193
Industry added value	Mio EUR	86 339	88 206	91 428	92 097	91 260	88 583
Total imports (current prices)	Mio EUR	202 802	214 546	237 122	242 454	244 450	245 992
among which:							
All energy commodities		5 094	13 982	24 671	22 138	24 137	25 101
Oil products		3 203	12 055	21 485	17 387	19 645	20 300
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	211.7	202.1	198.5	200.7	201.1	208.7
Final energy consumption / GDP(95)		140.0	132.4	131.3	131.1	130.0	134.7
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		152.3	145.1	150.4	148.7	150.0	165.5
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		36.7	32.9	33.5	32.0	31.6	33.0
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	4 791	4 726	4 769	4 853	4 855	4 969
Final energy consumption / capita		3 169	3 096	3 156	3 171	3 139	3 207
Household consumption / capita		661	655	648	659	629	647
Electricity consumption / capita	kWh/cap.	6 528	6 623	6 780	6 886	6 913	6 939
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	26.9	29.7	38.5	34.1	33.8	37.6
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	66.1	65.5	66.2	65.3	64.6	64.6
Efficiency of thermal power stations		53.7	52.3	55.5	53.9	53.6	53.5

## 2. Energy balance

### Principal aggregates by product

 eurostat	NEDERLAND						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	62 684	59 209	56 912	60 634	60 131	58 393	-2.9%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	2 680	2 556	2 373	2 285	3 102	3 104	0.1%
Natural Gas	57 613	54 118	51 904	55 713	54 275	52 212	-3.8%
Nuclear heat	937	988	1 013	1 026	1 010	1 036	2.6%
Hydro-electricity	9	8	12	10	9	6	-33.3%
Biomass	1 383	1 476	1 529	1 519	1 642	1 902	15.8%
<b>Imports</b>							
Total	118 276	118 850	134 407	144 123	141 438	142 073	0.4%
<i>among which:</i> Hard coal	14 207	11 755	13 709	18 575	13 381	13 588	1.6%
Crude oil and feedstocks	62 507	59 745	61 141	61 400	55 745	57 832	3.7%
Petroleum products	35 041	37 286	44 571	46 532	50 927	50 178	-1.5%
Natural Gas	5 164	7 751	12 475	15 323	19 175	18 256	-4.8%
Electricity	1 052	1 927	1 973	1 848	1 794	1 789	-0.3%
<b>Exports</b>							
Total	94 814	92 961	100 132	112 714	110 143	106 759	-3.1%
<i>among which:</i> Crude oil and feedstocks	345	310	186	358	901	1 354	50.3%
Petroleum products	60 733	60 074	63 853	65 880	65 578	65 735	0.2%
Natural gas	27 853	27 294	29 666	35 495	37 624	34 460	-8.4%
Electricity	36	341	347	362	386	328	-15.1%
<b>Gross inland consumption</b>							
Total	75 006	74 475	75 655	77 587p	78 195p	80 455	2.9%
<i>among which:</i> Solid fuels	9 246	7 486	7 979	8 334	8 381	8 731	4.2%
Crude oil and petrol. prod.	27 156	28 034	28 496	29 374	29 600	31 187	5.4%
Natural gas	34 946	34 581	34 711	35 547	35 842	35 998	0.4%
Nuclear Energy	937	988	1 013	1 026	1 010	1 036	2.6%
Renewables	1 454	1 547	1 622	1 610	1 744	2 041	17.1%
<b>Transformation input</b>							
Total	104 848	100 720	104 304	106 914p	104 340p	108 133	3.6%
<i>among which:</i> Crude oil and feedstocks	81 730	77 924	82 188	83 510	80 694	84 249	4.4%
Petroleum products	709	1 470	618	653	574	590	2.9%
Hard coal	8 130	6 809	7 173	7 491	7 458	7 597	1.9%
Lignite and peat	-	-	-	-	-	-	-
Renewables	1 076	1 160	1 220	1 302	1 413	1 564	10.7%
<b>Transformation output</b>							
Total	94 580	90 161	94 419	95 976	93 370	96 938	3.8%
<i>among which:</i> Electricity	7 770	7 390	7 622	7 980	8 164	8 201	0.4%
Heat	2 689	2 887	3 001	2 967	2 901	2 746	-5.4%

**Final energy consumption**

Total	49 615	48 790	50 066	50 700	50 547	51 937	2.8%
<i>among which:</i> Solid fuels	1 481	1 445	1 294	1 342	1 366	1 324	-3.0%
Petroleum products	16 074	16 026	16 469	16 506	16 906	17 192	1.7%
Natural Gas	21 030	19 994	20 600	21 116	20 551	21 226	3.3%
Renewables	308	316	309	217	229	338	47.5%
Electricity	7 975	8 145	8 421	8 549	8 576	8 629	0.6%

**Final energy consumption by sector**
**Industry**

Total	13 151	12 798	13 754	13 697	13 686	14 657	7.1%
<i>among which:</i> Solid fuels	1 449	1 406	1 266	1 310	1 333	1 294	-2.9%
Petroleum Products	1 194	836	1 603	1 602	1 635	1 797	9.9%
Natural Gas	5 790	5 713	5 743	5 358	5 369	5 861	9.2%
Renewables	71	73	69	69	74	102	36.5%
Electricity	3 386	3 439	3 491	3 494	3 531	3 500	-0.9%


**Transport**

Total	13 608	13 767	13 820	14 233	14 578	14 672	0.6%
<i>among which:</i> Motor spirit	4 321	4 355	4 242	4 334	4 387	4 402	0.4%
Diesel oil	5 089	5 175	5 472	5 942	6 127	6 324	3.2%
Jet fuel	3 261	3 388	3 343	3 250	3 393	3 334	-1.8%
Electricity	140	141	140	136	134	136	1.9%


**Services&households**

Total	22 855	22 226	22 493	22 769	22 283	22 608	1.5%
<i>among which:</i> Solid fuels	32	39	28	31	33	30	-7.5%
Gas oil	1 186	1 384	1 031	614	646	717	11.1%
Natural Gas	15 241	14 281	14 857	15 758	15 182	15 365	1.2%
Renewables	237	242	240	149	155	236	52.8%
Electricity	4 448	4 565	4 790	4 920	4 911	4 993	1.7%
Heat	1 479	1 526	1 384	1 096	1 163	1 107	-4.8%


### 3.1 Electricity balance

 eurostat	NEDERLAND						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	90 898	86 396	89 615	93 747	95 965	96 775	0.8%
<i>among which:</i>							
Hydro	106	90	142	117	108	72	-33.3%
Wind	640	645	829	825	910	1 330	46.2%
Geothermal	-	-	-	-	-	-	-
Nuclear	3 814	3 832	3 926	3 976	3 915	4 018	2.6%
Conventional thermal	86 338	81 829	84 718	88 829	91 032	91 355	0.4%
<i>of which:</i>							
Hard coal	24 169	19 000	22 600	23 720	23 936	24 339	1.7%
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	3 528	6 565	3 131	3 112	2 819	2 858	1.4%
Natural gas	51 981	49 552	51 713	55 263	57 028	56 876	-0.3%
Derived gases	3 105	3 108	2 848	3 021	2 920	3 132	7.3%
Biomass	3 132	2 821	3 251	3 458	3 002	3 898	29.8%
Industrial wastes	423	783	1 175	255	1 327	252	-81.0%
Total net generation	87 394	82 895	85 951	89 888	91 881	92 855	1.1%
<b>Imports and exports</b>							
Total imports	12 234	22 408	22 946	21 492	20 870	20 801	-0.3%
Total exports	420	3 968	4 031	4 209	4 488	3 809	-15.1%
<b>Consumption and losses</b>							
Consumption of the energy branch	6 314	6 438	6 503	7 402	8 383	9 120	8.8%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	3 871	3 960	4 089	4 200	4 228	4 282	1.3%
Final energy consumption	92 744	94 722	97 938	99 428	99 736	100 359	0.6%
<i>of which:</i>							
Industry	39 378	39 993	40 600	40 637	41 066	40 701	-0.9%
<i>among which:</i>							
Iron&steel industry	2 296	2 263	2 624	2 626	2 573	2 654	3.1%
Non-ferrous metals	5 468	5 693	5 949	5 802	5 769	5 828	1.0%
Chemical industry	12 262	11 857	11 995	11 567	11 893	11 922	0.2%
Non-met. mineral prod.	1 507	1 552	1 690	1 619	1 544	1 475	-4.5%
Food, drink, tobacco	6 448	6 343	6 387	6 819	6 680	6 592	-1.3%
Pulp, paper and print	3 580	3 671	3 804	3 623	3 752	3 694	-1.5%
Engineering & metal	4 269	4 916	4 504	4 625	4 792	3 904	-18.5%
Other industries	2 731	2 877	2 819	2 907	2 970	3 514	18.3%
Transport	1 630	1 639	1 630	1 577	1 556	1 585	1.9%
Services & households etc.	51 736	53 090	55 708	57 214	57 114	58 073	1.7%
<i>among which:</i>							
Households	20 800	21 350	21 800	22 100	22 800	23 300	2.2%

## 3.2 Electrical capacity, fuel inputs and heat


		NEDERLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	20 158	20 619	20 998	20 311	20 800	20 791	0.0%
<i>by source:</i>								
Conventional thermal		19 311	19 724	20 070	19 344	19 635	19 421	-1.1%
<i>of which:</i>								
Steam		10 062	10 081	10 945	9 421	10 374	10 216	-1.5%
Gas turbine		800	800	1 334	1 298	1 070	1 138	6.4%
Combined cycle		5 000	5 393	6 266	7 229	6 496	6 534	0.6%
Internal combustion		700	700	1 525	1 396	1 695	1 533	-9.6%
Nuclear		449	449	449	449	449	449	0.0%
Hydro		37	37	37	38	38	37	-2.6%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		361	409	442	480	678	884	30.4%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		17 387	17 840	18 214	17 881	18 277	18 152	-0.7%
Autoproducers		2 823	2 835	2 844	2 451	2 609	2 752	5.5%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	18 593	18 729	18 233	19 371p	19 708p	19 817	0.6%
<i>among which:</i>								
Hard coal		5 425	4 590	5 114	5 368	5 417	5 507	1.7%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		709	1 470	618	653	574	590	2.9%
Natural gas		10 445	10 566	10 441	11 164	11 441	11 455	0.1%
Renewables		1 076	1 160	1 220	1 302	1 413	1 564	10.7%
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	2 689	2 887	3 001	2 967	2 901	2 746	-5.4%
<i>among which: in heating plants</i>								
		145	161	164	165	168	-	
Heat consumption		2 291	2 460	2 558	2 530	2 466	2 746	11.4%
<i>of which: in industry</i>								
		812	933	1 174	1 434	1 303	1 638	25.8%
<i>in households and services</i>								
		1 479	1 526	1 384	1 096	1 163	1 107	-4.8%
<i>among which: in households</i>								
		197	203	150	164	158	174	9.6%


## 4.1 Crude oil and feedstocks

 eurostat	NEDERLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		2 661	2 535	2 350	2 263	3 074	3 076	0.1%
Total imports		62 053	59 251	60 553	60 810	55 236	57 312	3.8%
Total exports		342	307	184	355	893	1 342	50.3%
Stock changes		153	-187	-931	-584	98	898	816.3%
Refinery intake		81 010	77 173	81 294	82 598	79 828	83 351	4.4%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		37 410	33 685	30 856	28 982	21 468	21 920	2.1%
Near and Middle East		32 619	28 906	25 085	22 670	18 500	18 474	-0.1%
Africa		4 910	4 265	5 608	6 851	4 781	4 281	-10.5%
<i>by country of origin:</i>								
Algeria		4 351	4 035	4 780	4 666	3 886	2 417	-37.8%
Nigeria		384	158	455	1 387	346	1 293	273.7%
Saudi Arabia		14 967	11 560	12 265	10 539	7 567	10 592	40.0%
Kuwait		7 603	4 979	6 177	6 031	4 468	4 002	-10.4%
United Arab Emirates		-	-	141	-	-	-	-
Norway		11 755	10 633	11 340	10 782	8 035	8 428	4.9%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	61 780	61 780	59 600	:	:	:	
<i>among which:</i>								
Cracking and others		21 950	21 950	24 520	:	:	:	
Reforming		6 270	6 270	7 370	:	:	:	




## 4.2 Petroleum products


 eurostat	NEDERLAND						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	80 066	76 263	80 235	81 306	78 714	82 275	4.5%
<i>among which:</i>							
Motor spirit	14 976	13 251	14 314	14 476	15 810	15 787	-0.1%
Kerosene and jet fuel	6 529	7 162	7 487	7 068	6 658	7 167	7.6%
Naphtha	9 646	9 122	11 303	12 116	8 655	10 222	18.1%
Gas/diesel oil	21 251	21 682	21 994	22 167	19 583	20 787	6.1%
Residual fuel oil	14 448	11 145	11 215	10 780	12 704	12 333	-2.9%
Total imports	34 995	37 364	44 675	46 864	51 208	50 428	-1.5%
Total exports	60 433	59 693	63 442	65 714	65 432	65 562	0.2%
Bunkers	12 638	13 063	13 788	15 140	14 958	13 965	-6.6%
Stock changes	-6	1 546	-1 354	602	540	-286	-153.0%
Gross inland consumption	-38 008	-33 800	-33 859	-33 388	-28 592	-29 385	2.8%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	-	-	-	-	-	-	-
United Kingdom	3 929	4 101	5 203	4 527	5 011	4 733	-5.5%
Norway	1 105	873	874	539	1 329	1 240	-6.7%
OPEC	3 112	3 064	2 534	1 794	2 227	2 027	-9.0%
Imports by product							
<i>among which:</i>							
Motor spirit	5 443	5 394	7 516	6 176	7 270	7 821	7.6%
Kerosene and jet fuel	1 005	1 364	1 297	1 565	1 196	1 082	-9.5%
Gas/diesel oil	8 559	7 332	8 007	9 239	12 508	9 342	-25.3%
Residual fuel oil	7 026	9 456	13 059	14 695	15 565	14 086	-9.5%
Exports by product							
<i>among which:</i>							
Motor spirit	10 634	11 283	12 746	11 451	12 327	13 851	12.4%
Kerosene and jet fuel	3 701	4 435	4 440	4 175	3 424	3 783	10.5%
Gas/diesel oil	20 898	19 831	19 418	22 097	21 626	20 552	-5.0%
Residual fuel oil	9 688	7 995	10 210	10 894	12 115	11 344	-6.4%
<b>Consumption</b>							
Inputs to electricity plants	739	1 370	616	647	574	598	4.2%
Inputs to heating plants	-	-	-	-	-	-	-
Non-energy use	6 033	6 646	7 369	7 590	7 648	8 841	15.6%
Final energy consumption	15 489	15 496	15 841	15 893	16 255	16 560	1.9%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	207	224	219	168	164	175	6.7%
Residual fuel oil	56	44	39	44	6	21	250.0%

 eurostat	NEDERLAND						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>							
<i>among which by sector:</i>							
Iron&steel industry	5	3	4	4	3	4	33.3%
Non-ferrous metals	-	-	7	-	-	-	-
Chemical industry	782	471	1 137	1 207	1 191	1 257	5.5%
Non-met. mineral prod.	53	42	33	30	8	17	112.5%
Food, drink, tobacco	25	35	21	20	7	10	42.9%
Pulp, paper and print	2	1	1	2	1	1	0.0%
Engineering & metal	59	18	22	21	65	103	58.5%
Other industries	137	144	148	121	114	164	43.9%
<b>Transport</b>	13 049	13 209	13 274	13 690	14 031	14 127	0.7%
<i>among which:</i>							
Motor spirit	4 112	4 144	4 036	4 124	4 174	4 189	0.4%
Jet fuel	3 175	3 299	3 255	3 164	3 304	3 246	-1.8%
Diesel oil	5 037	5 122	5 416	5 881	6 064	6 259	3.2%
<b>Services &amp; households etc.</b>	1 390	1 542	1 165	791	809	844	4.3%
<i>among which:</i>							
Gas oil	1 174	1 370	1 020	608	639	710	11.1%
Residual fuel oil	20	23	2	27	-	-	-
<b>Stocks at end of period</b>							
Crude oil and feedstocks	3 938	4 125	5 056	5 640	5 542	4 644	-16.2%
Petroleum products	8 346	6 800	8 154	7 552	7 012	7 298	4.1%


## 5. Natural gas

 eurostat	NEDERLAND								
	in TJ (GCV)		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		2 680 135	2 517 547	2 414 593	2 591 786	2 524 867	2 428 905	-3.8%	
Total imports		240 252	360 586	580 346	712 810	892 010	849 263	-4.8%	
Total exports		1 295 709	1 269 699	1 380 051	1 651 219	1 750 281	1 603 074	-8.4%	
Stock changes		1 007	270	-150	276	774	-447	-157.8%	
Gross inland consumption		1 625 685	1 608 704	1 614 738	1 653 653	1 667 370	1 674 647	0.4%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		-	-	-	-	-	-	-	
Algeria		-	-	-	-	-	-	-	
Norway		208 923	221 184	253 118	258 626	335 294	282 365	-15.8%	
<b>Consumption</b>									
Inputs to electricity plants		485 898	491 520	485 721	519 356	532 244	532 865	0.1%	
Inputs to heat plants		-	-	-	-	-	-	-	
Consumption of energy branch		69 806	69 210	67 330	64 319	72 841	55 463	-23.9%	
Distribution losses		-	-	-	-	-	-	-	
Non-energy use		118 869	117 864	116 589	102 872	106 249	98 882	-6.9%	
Industry		269 328	265 747	267 167	249 231	249 768	272 665	9.2%	
<i>among which:</i>									
Iron&steel industry		14 347	14 668	14 740	14 833	14 662	13 401	-8.6%	
Non-ferrous metals		4 211	3 940	4 195	3 878	4 136	3 885	-6.1%	
Chemical industry		105 380	95 989	99 518	89 304	88 750	99 038	11.6%	
Non-met. mineral prod.		27 579	27 834	28 657	28 066	24 901	25 133	0.9%	
Food, drink, tobacco		58 457	62 158	57 768	53 732	56 739	66 907	17.9%	
Pulp, paper and print		16 967	17 023	17 652	15 828	16 936	20 937	23.6%	
Engineering & metal		24 875	25 464	24 205	24 560	24 067	18 795	-21.9%	
Other industries		9 274	9 463	10 850	10 541	10 331	13 513	30.8%	
Transport		-	-	-	-	-	-	-	
Services & households etc.		709 006	664 363	691 151	733 066	706 268	714 772	1.2%	
<i>among which:</i>									
Households		374 560	371 044	370 692	385 112	364 010	372 802	2.4%	
Services		175 446	138 219	172 961	200 801	195 675	215 112	9.9%	


## 6.1 Hard coal


 eurostat	NEDERLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	22 198	19 002	22 295	30 336	21 677	21 620	-0.3%	
Total exports	7 985	7 240	9 122	16 745	8 568	7 295	-14.9%	
Stock changes	774	327	-245	-131	305	-658	-315.7%	
Gross inland consumption	14 987	12 089	12 928	13 460	13 414	13 667	1.9%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	3 279	2 734	2 862	2 580	2 350	1 181	-49.7%	
Poland	2 414	1 607	1 565	957	321	377	17.4%	
CIS	246	345	174	953	590	288	-51.2%	
Australia	2 920	2 781	3 013	2 486	2 833	2 561	-9.6%	
South Africa	5 524	4 789	5 269	10 466	7 396	8 094	9.4%	
Colombia	3 708	3 433	4 805	5 810	3 026	4 362	44.2%	
<b>Consumption</b>								
Inputs to electricity plants	9 317	7 884	8 590	9 156	9 110	9 212	1.1%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	1 297	1 288	1 159	1 262	1 289	1 364	5.8%	
<i>among which:</i>								
Iron&steel industry	1 207	1 172	1 052	1 212	1 247	1 334	7.0%	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	34	46	54	-	-	-	-	
Non-met. mineral prod.	19	38	16	13	1	1	0.0%	
Food, drink, tobacco	37	31	36	36	39	28	-28.2%	
Pulp, paper and print	-	-	-	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	-	-	-	-	-	-	-	
Services & households etc.	31	50	31	35	32	33	3.1%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	NEDERLAND						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	2 837	2 327	2 127	2 214	2 127	2 154	1.3%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	24 098	19 766	18 875	19 268	17 983	19 054	6.0%
Blast-furnace gas	36 955	36 011	33 970	37 015	37 146	39 385	6.0%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	794	730	691	638	652	659	1.1%
<i>among which:</i>							
Iron & steel industry	726	661	621	571	583	618	6.0%
Services & households	-	-	-	-	-	-	-
Patent Fuel	2	-	-	-	-	-	-
<i>among which:</i>							
Services & households	2	-	-	-	-	-	-
Lignite and peat	19	35	44	57	52	39	-25.0%
<i>among which:</i>							
Industry	2	16	26	35	29	18	-37.9%
Services & households	17	19	18	22	23	21	-8.7%
Brown coal briquettes	1	1	1	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	1	1	1	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	9 366	7 901	7 356	7 260	7 156	7 642	6.8%
Blast-furnace gas	10 409	9 535	10 438	11 488	12 026	12 603	4.8%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	29 129	29 167	26 722	28 579	27 639	29 649	7.3%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	11 054	9 104	8 329	8 956	8 308	8 545	2.9%
Consumption in industry	19 775	17 436	17 794	18 748	19 182	20 245	5.5%


## 7. Renewable energy sources

		NEDERLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	1 454	1 547	1 622	1 610	1 744	2 041	17.1%
Hydro (excl. pumping)		9	8	12	10	9	6	-33.3%
Wind		55	55	71	71	78	114	46.2%
Solar		6	7	9	10	14	19	32.3%
Geothermal		-	-	-	-	-	-	-
Biomass		1 383	1 476	1 529	1 519	1 642	1 902	15.8%
	<i>among which:</i>							
Wood, wood-waste		267	267	300	321	448	500	11.6%
Municipal solid waste		994	1 090	1 097	1 060	1 061	1 273	20.1%
Biogas		122	119	132	138	133	128	-3.7%
Gross inland consumption		1 454	1 547	1 622	1 610	1 744	2 041	17.1%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		1 076	1 160	1 220	1 302	1 413	1 564	10.7%
	<i>among which:</i>							
Wood, wood-waste		-	-	45	141	271	226	-16.7%
Municipal waste		994	1 090	1 097	1 060	1 061	1 273	20.1%
Biogas		81	70	78	100	81	65	-20.1%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	314	323	317	227	241	354	46.9%
	<i>by sector:</i>							
Industry		71	73	69	69	74	102	36.5%
Services & households etc.		243	249	249	158	167	252	51.5%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		308	316	309	217	229	338	47.5%
	<i>among which:</i>							
Wood, wood-waste		267	267	255	180	177	274	55.2%
Municipal waste		-	-	-	-	-	-	-
Biogas		41	49	54	37	52	64	21.7%
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		3	6	8	14	17	31	82.4%
Hydro with installed capacity < 1 MW		1	1	1	-	-	-	-
Hydro with installed capacity > 1 & <10 MW		-	-	-	-	-	-	-
Hydro with installed capacity > 10 MW		105	90	142	117	108	72	-33.3%
Wood, Wood-waste		-	-	378	670	1 323	975	-26.3%
Municipal waste		2 860	2 535	2 574	2 487	2 521	2 629	4.3%
Biogas		272	286	299	301	304	294	-3.3%

		NEDERLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		6	10	13	21	26	46	76.9%
Hydro with installed capacity < 1 MW		2	2	2	-	-	-	-
Hydro with installed capacity > 1 & <10 MW		-	-	-	-	-	-	-
Hydro with installed capacity > 10 MW		35	35	36	38	37	37	0.0%
Wood, Wood-waste		-	-	-	-	-	-	-
Municipal waste		395	395	424	414	414	414	0.0%
Biogas		-	-	-	-	-	-	-
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	-	-	-	-
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	227	268	309	358	406	449	10.6%

# 1. Energy economy


## Key figures and energy indicators

		ÖSTERREICH					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	8 629	9 255	9 380	9 435	9 595	9 710
Net energy imports		20 179	18 895	18 813	19 647	20 409	22 644
Net oil imports		11 990	11 048	10 679	11 343	12 162	12 911
Net gas imports		5 280	5 190	5 253	5 008	4 724	5 948
Gross inland energy consumption		28 720	28 602	28 450	30 464	30 180	32 725
Final energy consumption		22 216	21 821	22 117	23 782	24 507	26 288
Industry		6 727	6 416	6 731	6 945	7 510	7 884
Transport		5 955	5 737	6 033	6 377	6 951	7 381
Services and households etc.		9 535	9 668	9 354	10 460	10 046	11 023
Gross electricity generation	GWh	57 462	60 514	61 821	62 430	62 479	63 170
Final electricity consumption		48 896	50 499	51 796	53 897	54 934	60 677
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	198 296	204 882	211 759	213 278	215 764	217 399
Population	1000 per.	7 971	7 983	8 002	8 021	8 065	8 102
Industry added value	Mio EUR	54 729	57 133	60 021	60 684	61 564	62 355
Total imports (current prices)	Mio EUR	77 401	81 300	89 487	93 970	93 801	98 313
among which:							
All energy commodities		2 551	2 883	4 901	5 504	5 742	6 462
Oil products		1 520	1 951	3 398	3 279	3 264	3 527
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	144.8	139.6	134.4	142.8	139.9	150.5
Final energy consumption / GDP(95)		112.0	106.5	104.4	111.5	113.6	120.9
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		122.9	112.3	112.1	114.4	122.0	126.4
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		20.1	19.6	17.8	20.4	18.7	22.2
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 603	3 583	3 555	3 798	3 742	4 039
Final energy consumption / capita		2 787	2 734	2 764	2 965	3 039	3 245
Household consumption / capita		817	831	809	899	868	925
Electricity consumption / capita	kWh/cap.	2 326	2 109	2 110	2 573	2 601	3 709
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	70.3	66.1	66.1	64.5	67.6	69.2
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	77.4	76.3	77.7	78.1	81.2	80.3
Efficiency of thermal power stations		55.9	53.2	57.4	63.4	58.0	56.6



## 2. Energy balance

### Principal aggregates by product

 eurostat	OSTERREICH						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	8 629	9 255	9 380	9 435	9 595	9 710	1.2%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	267	266	293	283	331	270	-18.4%
Crude oil	1 030	1 044	1 055	991	925	989	6.9%
Natural Gas	1 335	1 478	1 533	1 471	1 597	1 776	11.2%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	3 196	3 482	3 598	3 455	3 433	3 125	-9.0%
Biomass	2 739	2 910	2 819	3 140	3 204	3 420	6.7%
<b>Imports</b>							
Total	22 807	21 812	21 717	23 030	23 939	26 254	9.7%
<i>among which:</i> Hard coal	2 460	2 371	2 326	2 538	2 718	2 671	-1.7%
Crude oil and feedstocks	9 048	8 311	7 841	8 358	8 525	8 024	-5.9%
Petroleum products	4 530	4 344	4 261	4 600	5 079	6 286	23.8%
Natural Gas	5 297	5 190	5 268	5 356	5 376	6 820	26.9%
Electricity	886	998	1 189	1 244	1 322	1 634	23.6%
<b>Exports</b>							
Total	2 628	2 917	2 904	3 383	3 530	3 610	2.3%
<i>among which:</i> Crude oil and feedstocks	50	65	137	104	6	25	316.7%
Petroleum products	1 538	1 542	1 285	1 510	1 436	1 374	-4.3%
Natural gas	16	-	15	348	652	872	33.7%
Electricity	900	1 161	1 306	1 225	1 262	1 151	-8.8%
<b>Gross inland consumption</b>							
Total	28 720	28 602	28 450	30 464	30 180	32 725	8.4%
<i>among which:</i> Solid fuels	3 157	3 260	3 588	3 909	3 795	3 961	4.4%
Crude oil and petrol. prod.	12 760	12 117	11 858	12 772	12 795	13 806	7.9%
Natural gas	6 713	6 831	6 519	6 930	6 612	7 555	14.3%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	5 968	6 418	6 451	6 636	6 725	6 657	-1.0%
<b>Transformation input</b>							
Total	16 636	16 333	15 037	15 743	16 231	16 762	3.3%
<i>among which:</i> Crude oil and feedstocks	9 883	9 438	8 765	9 336	9 320	8 973	-3.7%
Petroleum products	704	617	378	419	262	348	32.8%
Hard coal	2 206	2 122	2 245	2 441	2 378	2 718	14.3%
Lignite and peat	177	328	290	354	323	333	2.9%
Renewables	590	683	627	669	784	914	16.6%
<b>Transformation output</b>							
Total	14 226	13 823	12 920	13 829	14 026	14 217	1.4%
<i>among which:</i> Electricity	1 608	1 611	1 570	1 756	1 743	2 102	20.5%
Heat	1 137	1 167	1 070	1 257	1 218	1 325	8.8%

**Final energy consumption**

Total	22 216	21 821	22 117	23 782	24 507	26 288	7.3%
<i>among which:</i> Solid fuels	808	732	756	805	896	809	-9.7%
Petroleum products	9 888	9 423	9 414	10 160	10 564	11 505	8.9%
Natural Gas	3 629	3 598	3 835	3 821	4 054	4 142	2.2%
Renewables	2 120	2 178	2 143	2 417	2 404	2 487	3.4%
Electricity	4 204	4 342	4 454	4 634	4 723	5 217	10.5%

**Final energy consumption by sector**
**Industry**

Total	6 727	6 416	6 731	6 945	7 510	7 884	5.0%
<i>among which:</i> Solid fuels	493	436	499	533	697	637	-8.6%
Petroleum Products	1 536	1 284	1 244	1 273	1 317	1 458	10.7%
Natural Gas	1 899	1 819	2 000	1 883	2 197	2 113	-3.8%
Renewables	484	518	579	646	691	618	-10.6%
Electricity	1 828	1 932	1 948	1 806	1 831	2 110	15.3%


**Transport**

Total	5 955	5 737	6 033	6 377	6 951	7 381	6.2%
<i>among which:</i> Motor spirit	2 159	2 003	1 938	1 952	2 174	2 224	2.3%
Diesel oil	2 947	2 910	3 215	3 542	3 950	4 356	10.3%
Jet fuel	560	541	586	570	534	507	-5.0%
Electricity	278	271	280	289	268	268	0.0%


**Services&households**

Total	9 535	9 668	9 354	10 460	10 046	11 023	9.7%
<i>among which:</i> Solid fuels	315	295	256	271	199	171	-13.7%
Gas oil	2 300	2 258	2 014	2 365	2 156	2 441	13.2%
Natural Gas	1 729	1 780	1 835	1 938	1 857	2 029	9.3%
Renewables	1 629	1 653	1 556	1 762	1 705	1 861	9.2%
Electricity	2 098	2 139	2 225	2 540	2 625	2 839	8.2%
Heat	1 008	1 044	969	1 047	1 001	1 078	7.7%


### 3.1 Electricity balance

 eurostat	OSTERREICH						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	57 462	60 514	61 821	62 430	62 479	63 170	1.1%
<i>among which:</i>							
Hydro	38 716	41 727	43 498	41 837	42 004	38 366	-8.7%
Wind	45	51	67	172	203	366	80.3%
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	18 701	18 736	18 256	20 421	20 272	24 438	20.6%
<i>of which:</i>							
Hard coal	3 306	2 893	4 432	5 356	5 153	6 920	34.3%
Lignite and peat	825	1 496	1 293	1 623	1 461	1 512	3.5%
Petroleum products	2 785	2 419	1 643	2 230	1 314	1 752	33.3%
Natural gas	9 084	8 857	8 062	8 232	9 416	11 228	19.2%
Derived gases	1 009	1 100	1 038	970	1 048	992	-5.3%
Biomass	1 700	1 594	1 618	1 823	1 568	1 744	11.2%
Industrial wastes	-8	377	170	187	312	290	-7.1%
Total net generation	56 022	59 022	59 985	60 809	61 067	61 674	1.0%
<b>Imports and exports</b>							
Total imports	10 304	11 608	13 824	14 467	15 375	19 003	23.6%
Total exports	10 467	13 507	15 192	14 252	14 676	13 389	-8.8%
<b>Consumption and losses</b>							
Consumption of the energy branch	3 511	3 561	3 743	4 042	3 030	3 118	2.9%
<i>of which:</i>							
Consumption for pumped-storage	275	251	258	344	432	403	-6.7%
Network losses	3 340	3 321	3 256	3 056	3 144	2 970	-5.5%
Final energy consumption	48 896	50 499	51 796	53 897	54 934	60 677	10.5%
<i>of which:</i>							
Industry	21 264	22 470	22 657	21 004	21 290	24 542	15.3%
<i>among which:</i>							
Iron&steel industry	3 330	3 519	3 548	2 937	2 888	3 332	15.4%
Non-ferrous metals	630	666	672	638	668	770	15.3%
Chemical industry	3 023	3 194	3 221	3 225	3 347	3 858	15.3%
Non-met. mineral prod.	1 388	1 467	1 479	1 485	1 626	1 874	15.3%
Food, drink, tobacco	1 270	1 342	1 353	1 282	1 332	1 535	15.2%
Pulp, paper and print	4 935	5 215	5 258	4 603	4 778	5 506	15.2%
Engineering & metal	1 198	1 266	1 276	2 985	2 980	3 436	15.3%
Other industries	4 198	4 436	4 473	2 541	2 384	2 748	15.3%
Transport	3 229	3 153	3 259	3 357	3 118	3 118	0.0%
Services & households etc.	24 403	24 876	25 880	29 536	30 526	33 017	8.2%
<i>among which:</i>							
Households	13 266	13 163	14 088	15 012	16 095	16 572	3.0%


## 3.2 Electrical capacity, fuel inputs and heat


		OSTERREICH						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	17 453	17 843	17 735	17 657	18 009	18 219	1.2%
<i>by source:</i>								
Conventional thermal		5 982	6 160	6 134	6 038	6 178	6 178	0.0%
<i>of which:</i>								
Steam		4 633	4 824	4 790	4 694	4 834	4 834	0.0%
Gas turbine		256	256	256	257	257	257	0.0%
Combined cycle		979	968	968	980	980	980	0.0%
Internal combustion		114	112	120	107	107	107	0.0%
Nuclear		-	-	-	-	-	-	-
Hydro		11 444	11 648	11 547	11 550	11 698	11 698	0.0%
<i>among which:</i>								
Pumped storage		3 937	3 568	3 568	3 568	2 073	2 073	0.0%
Wind		27	35	54	69	133	343	157.9%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		15 728	16 112	16 089	15 993	16 361	16 361	0.0%
Autoproducers		1 726	1 732	1 630	1 665	1 665	1 665	0.0%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	4 309	4 459	3 929	4 076	4 359	5 222	19.8%
<i>among which:</i>								
Hard coal		698	601	941	1 124	1 060	1 401	32.1%
Lignite and peat		177	328	290	354	323	333	2.9%
Petroleum products		597	553	287	299	212	311	46.2%
Natural gas		2 195	2 236	1 754	1 767	1 928	2 347	21.7%
Renewables		389	446	378	378	456	535	17.3%
Heating plants		491	501	573	534	563	611	8.5%
<i>among which:</i>								
Hard coal		-	-	-	4	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		106	63	92	120	50	37	-24.7%
Natural gas		183	192	223	109	176	180	2.8%
Renewables		201	245	257	299	338	390	15.4%
<b>Heat production and consumption</b>								
Total heat production	TJ	1 137	1 167	1 070	1 257	1 218	1 325	8.8%
<i>among which: in heating plants</i>								
		335	406	386	427	435	469	7.9%
Heat consumption		1 008	1 044	969	1 207	1 186	1 295	9.2%
<i>of which: in industry</i>								
		0	0	0	160	185	216	17.0%
<i>in households and services</i>								
		1 008	1 044	969	1 047	1 001	1 078	7.7%
<i>among which: in households</i>								
		417	465	455	513	508	502	-1.0%

## 4.1 Crude oil and feedstocks


 eurostat	OSTERREICH							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		1 047	1 063	1 072	1 012	948	1 011	6.6%
Total imports		9 174	8 440	7 949	8 512	8 711	8 189	-6.0%
Total exports		51	66	137	105	6	25	316.7%
Stock changes		-185	111	-17	80	-224	-111	50.4%
Refinery intake		10 028	9 583	8 891	9 508	9 529	9 163	-3.8%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		5 904	5 176	4 526	4 853	4 362	4 111	-5.8%
Near and Middle East		2 521	2 363	2 373	2 621	2 872	2 426	-15.5%
Africa		3 713	3 257	2 446	3 246	2 434	2 636	8.3%
<i>by country of origin:</i>								
Algeria		888	927	739	520	260	294	13.1%
Nigeria		994	695	986	1 390	1 482	1 108	-25.2%
Saudi Arabia		903	515	595	641	862	1 570	82.1%
Kuwait		-	-	-	-	-	128	
United Arab Emirates		-	-	-	49	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	10 000	10 000	10 330	:	:	:	
<i>among which:</i>								
Cracking and others		3 360	3 360	3 020	:	:	:	
Reforming		1 370	1 370	1 400	:	:	:	

## 4.2 Petroleum products

 eurostat	OSTERREICH						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	9 826	9 414	8 770	9 339	9 445	9 157	-3.0%
<i>among which:</i>							
Motor spirit	2 232	2 141	1 815	1 922	1 927	1 811	-6.0%
Kerosene and jet fuel	542	509	545	514	485	447	-7.8%
Naphtha	-	-	-	-	-	-	-
Gas/diesel oil	3 895	3 675	3 724	3 959	3 984	3 849	-3.4%
Residual fuel oil	1 347	1 308	979	1 044	1 012	1 062	4.9%
Total imports	4 547	4 343	4 271	4 594	5 066	6 267	23.7%
Total exports	1 528	1 531	1 305	1 539	1 464	1 395	-4.7%
Bunkers	-	-	-	-	-	-	-
Stock changes	-76	-115	137	358	-77	16	120.8%
Gross inland consumption	2 943	2 730	3 125	3 423	3 525	4 891	38.8%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	47	53	61	34	87	43	-50.6%
United Kingdom	1	1	1	1	1	-	-
Norway	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-
Imports by product							
<i>among which:</i>							
Motor spirit	759	762	670	603	706	879	24.5%
Kerosene and jet fuel	28	39	43	41	45	56	24.4%
Gas/diesel oil	2 475	2 492	2 608	3 059	3 462	4 351	25.7%
Residual fuel oil	671	468	261	280	241	328	36.1%
Exports by product							
<i>among which:</i>							
Motor spirit	824	824	472	582	496	474	-4.4%
Kerosene and jet fuel	7	7	6	2	2	7	250.0%
Gas/diesel oil	467	459	416	418	520	539	3.7%
Residual fuel oil	18	37	152	228	146	55	-62.3%
<b>Consumption</b>							
Inputs to electricity plants	625	579	300	311	222	325	46.4%
Inputs to heating plants	111	66	96	126	52	39	-25.0%
Non-energy use	1 351	1 351	1 338	1 425	1 390	1 410	1.4%
Final energy consumption	9 735	9 273	9 259	9 997	10 396	11 331	9.0%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	635	629	685	765	916	954	4.1%
Residual fuel oil	685	431	347	304	224	324	44.6%


 eurostat	OSTERREICH						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>							
<i>among which by sector:</i>							
Iron&steel industry	23	19	27	16	8	12	50.0%
Non-ferrous metals	21	17	14	13	16	16	0.0%
Chemical industry	44	35	25	29	29	31	6.9%
Non-met. mineral prod.	224	160	112	93	125	143	14.4%
Food, drink, tobacco	83	58	55	54	57	55	-3.5%
Pulp, paper and print	132	73	52	46	36	48	33.3%
Engineering & metal	256	225	222	225	177	190	7.3%
Other industries	659	610	648	693	774	855	10.5%
<b>Transport</b>	5 520	5 317	5 601	5 932	6 513	6 937	6.5%
<i>among which:</i>							
Motor spirit	2 054	1 906	1 844	1 857	2 069	2 116	2.3%
Jet fuel	545	527	571	555	520	494	-5.0%
Diesel oil	2 917	2 880	3 182	3 506	3 910	4 312	10.3%
<b>Services &amp; households etc.</b>	2 664	2 663	2 412	2 793	2 558	2 924	14.3%
<i>among which:</i>							
Gas oil	2 277	2 235	1 993	2 341	2 134	2 416	13.2%
Residual fuel oil	291	324	324	370	336	389	15.8%
<b>Stocks at end of period</b>							
Crude oil and feedstocks	1 590	1 479	1 495	1 415	1 639	1 750	6.8%
Petroleum products	1 723	1 836	1 700	1 302	1 422	1 434	0.8%

## 5. Natural gas


 eurostat	OSTERREICH							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		62 084	68 778	71 308	68 414	74 295	82 603	11.2%
Total imports		246 410	241 433	245 062	249 140	250 091	317 283	26.9%
Total exports		767	-	696	16 184	30 334	40 567	33.7%
Stock changes		4 585	7 553	-12 424	21 004	13 516	-7 879	-158.3%
Gross inland consumption		312 312	317 764	303 250	322 374	307 568	351 440	14.3%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		c	c	c	c	c	c	
Algeria		-	-	-	-	-	-	-
Norway		c	c	c	c	c	c	
<b>Consumption</b>								
Inputs to electricity plants		102 105	104 004	81 579	82 216	89 682	109 168	21.7%
Inputs to heat plants		8 515	8 936	10 372	5 061	8 166	8 393	2.8%
Consumption of energy branch		19 320	22 973	21 568	34 464	20 366	21 143	3.8%
Distribution losses		1 954	2 742	228	11 919	6 869	7 647	11.3%
Non-energy use		11 609	11 708	11 554	10 939	11 369	12 406	9.1%
Industry		88 360	84 602	93 044	87 597	102 195	98 295	-3.8%
<i>among which:</i>								
Iron&steel industry		15 594	14 962	14 831	16 773	13 677	13 154	-3.8%
Non-ferrous metals		2 531	2 414	2 598	2 838	2 915	2 803	-3.8%
Chemical industry		10 823	10 323	11 110	8 233	15 961	15 351	-3.8%
Non-met. mineral prod.		14 174	13 519	14 550	10 783	12 293	11 824	-3.8%
Food, drink, tobacco		10 307	9 831	14 095	14 046	19 259	18 524	-3.8%
Pulp, paper and print		18 032	17 199	18 511	18 925	18 510	17 804	-3.8%
Engineering & metal		7 151	6 820	7 341	7 079	6 858	6 597	-3.8%
Other industries		4 475	4 505	4 595	4 271	6 818	6 559	-3.8%
Transport		-	-	-	-	-	-	-
Services & households etc.		80 449	82 796	85 362	90 178	86 387	94 388	9.3%
<i>among which:</i>								
Households		59 291	62 476	63 076	69 091	65 153	73 837	13.3%
Services		20 517	19 644	21 604	20 340	20 494	19 712	-3.8%




## 6.1 Hard coal

 eurostat	OSTERREICH							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	3 745	3 360	3 413	3 724	4 031	3 959	-1.8%	
Total exports	-	-	-	-	-	-	-	
Stock changes	-14	97	297	243	-199	335	268.3%	
Gross inland consumption	3 731	3 457	3 710	3 967	3 832	4 294	12.1%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	2	1	-50.0%	
Poland	1 802	1 535	1 915	2 184	2 287	2 160	-5.6%	
CIS	1	1	-	-	-	-	-	
Australia	-	-	-	11	34	3	-91.2%	
South Africa	-	-	-	-	-	-	-	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	1 061	913	1 414	1 673	1 617	2 136	32.1%	
Inputs to heat plants	-	-	-	6	-	-	-	
Consumption of energy branch	-	7	33	2	-	-	-	
Industry								
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	70	44	54	62	71	68	-4.2%	
Non-met. mineral prod.	199	125	154	152	98	82	-16.3%	
Food, drink, tobacco	-	-	-	-	-	-	-	
Pulp, paper and print	113	71	87	81	85	57	-32.9%	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	-	-	-	-	-	-	-	
Services & households etc.	113	103	88	97	60	50	-16.7%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

 eurostat	OSTERREICH						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	1 598	1 608	1 385	1 394	1 395	1 395	0.0%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	1 141	1 138	1 250	1 207	1 413	1 153	-18.4%
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	12 166	12 220	10 466	9 776	9 579	10 932	14.1%
Blast-furnace gas	18 608	17 313	19 491	20 275	28 100	26 743	-4.8%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	586	610	633	663	910	798	-12.3%
<i>among which:</i>							
Iron & steel industry	297	332	379	396	696	643	-7.6%
Services & households	254	237	206	233	177	144	-18.6%
Patent Fuel	4	4	4	1	1	2	100.0%
<i>among which:</i>							
Services & households	4	4	4	1	1	2	100.0%
Lignite and peat	104	152	72	167	167	171	2.4%
<i>among which:</i>							
Industry	45	94	27	121	133	146	9.8%
Services & households	59	58	45	46	34	25	-26.5%
Brown coal briquettes	103	106	95	79	65	72	10.8%
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	103	106	95	79	65	72	10.8%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	5 801	5 264	3 556	4 916	3 440	5 961	73.3%
Blast-furnace gas	12 241	9 937	12 474	17 040	19 192	17 755	-7.5%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	8 731	10 709	10 005	4 209	11 118	9 739	-12.4%
Inputs to heat plants	-	-	50	-	-	91	-
Consumption of energy branch	4 002	3 623	3 872	3 886	3 929	4 129	5.1%
Consumption in industry	18 042	15 201	16 030	21 956	22 632	23 716	4.8%


## 7. Renewable energy sources

		OSTERREICH						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	5 998	6 467	6 500	6 690	6 741	6 675	-1.0%
Hydro (excl. pumping)		3 196	3 482	3 598	3 455	3 433	3 125	-9.0%
Wind		4	4	6	15	17	31	80.3%
Solar		55	58	64	67	69	80	14.9%
Geothermal		5	12	14	14	17	19	13.9%
Biomass		2 739	2 910	2 819	3 140	3 204	3 420	6.7%
	<i>among which:</i>							
Wood, wood-waste		2 581	2 723	2 619	2 952	3 032	3 222	6.3%
Municipal solid waste		114	139	149	110	117	138	17.7%
Biogas		30	33	35	59	38	43	12.7%
Gross inland consumption		5 968	6 418	6 451	6 636	6 725	6 657	-1.0%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		1	8	9	9	10	10	9.5%
Biomass		590	683	627	669	784	914	16.6%
	<i>among which:</i>							
Wood, wood-waste		446	512	444	503	636	741	16.5%
Municipal waste		114	139	149	110	117	138	17.7%
Biogas		30	33	34	56	31	35	13.9%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	2 178	2 240	2 211	2 488	2 481	2 574	3.8%
	<i>by sector:</i>							
Industry		484	518	579	646	691	618	-10.6%
Services & households etc.		1 688	1 715	1 624	1 833	1 782	1 948	9.4%
Transport		6	6	8	9	8	8	0.0%
	<i>by source:</i>							
Biomass		2 120	2 178	2 143	2 417	2 404	2 487	3.4%
	<i>among which:</i>							
Wood, wood-waste		2 107	2 163	2 126	2 396	2 380	2 462	3.5%
Municipal waste		-	-	-	-	-	-	-
Biogas		0	1	1	4	7	7	7.6%
Geothermal		4	4	5	5	7	9	15.5%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		2	2	3	4	4	12	200.0%
Hydro with installed capacity < 1 MW		1 539	1 512	1 566	1 521	1 399	2 007	43.5%
Hydro with installed capacity > 1 & <10 MW		2 611	2 739	2 835	2 738	3 233	1 747	-46.0%
Hydro with installed capacity > 10 MW		33 014	35 027	37 439	37 574	35 299	34 612	-1.9%
Wood, Wood-waste		1 563	1 517	1 482	1 552	1 401	1 502	7.2%
Municipal waste		75	78	84	77	79	186	135.4%
Biogas		61	53	102	194	88	56	-36.4%

eurostat		ÖSTERREICH						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		3	4	5	7	9	9	0.0%
Hydro with installed capacity < 1 MW		287	282	282	282	111	295	165.8%
Hydro with installed capacity > 1 & <10 MW		550	561	561	561	650	665	2.3%
Hydro with installed capacity > 10 MW		6 898	7 237	7 136	7 139	7 147	8 658	21.1%
Wood, Wood-waste		747	787	780	766	766	766	0.0%
Municipal waste		9	12	12	12	12	364	2933.3%
Biogas		-	-	-	-	-	-	-
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	16	18	20	22	21	21	0.0%
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	1 876	2 000	2 100	2 200	2 400	2 570	7.1%

# 1. Energy economy

## Key figures and energy indicators

		POLSKA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	86 775	82 829	78 441	79 370	79 053	79 621
Net energy imports		9 246	9 524	10 131	9 386	10 049	13 340
Net oil imports		18 701	19 334	20 381	19 086	19 578	19 997
Net gas imports		6 454	6 223	6 607	7 178	6 681	7 499
Gross inland energy consumption		97 419	93 742	90 779	90 798	89 396	94 109
Final energy consumption		60 378	58 716	55 588	56 206	54 396	56 606
Industry		21 111	18 450	18 883	17 358	16 570	17 149
Transport		9 509	10 535	9 185	9 169	8 982	11 107
Services and households etc.		29 758	29 731	27 519	29 679	28 845	28 350
Gross electricity generation	GWh	142 789	142 128	145 183	145 615	144 126	151 631
Final electricity consumption		94 848	92 084	96 727	96 856	95 504	98 339
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	123 327	128 383	133 455	134 812	136 659	141 918
Population	1000 per.	38 660	38 667	38 654	38 254	38 242	38 219
Industry added value	Mio EUR	41 276	42 438	44 665	43 882	43 300	45 373
Total imports (current prices)	Mio EUR	41 219	41 624	48 104	45 530	46 711	51 062
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	789.9	730.2	680.2	673.5	654.2	663.1
Final energy consumption / GDP(95)		489.6	457.4	416.5	416.9	398.0	398.9
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		511.4	434.8	422.8	395.6	382.7	378.0
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		78.9	71.5	74.6	81.2	87.1	90.1
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 520	2 424	2 349	2 374	2 338	2 462
Final energy consumption / capita		1 562	1 519	1 438	1 469	1 422	1 481
Household consumption / capita		512	513	453	502	473	462
Electricity consumption / capita	kWh/cap.	3 492	3 437	3 485	3 520	3 480	3 612
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	9.5	10.1	11.1	10.3	11.2	14.1
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	62.0	62.6	61.2	61.9	60.8	60.1
Efficiency of thermal power stations		46.8	47.0	46.8	47.3	47.6	48.1

## 2. Energy balance

### Principal aggregates by product

eurostat	POLSKA						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	86 775	82 829	78 441	79 370	79 053	79 621	0.7%
<i>among which:</i> Hard coal	66 379	63 079	58 539	58 823	58 491	57 808	-1.2%
Lignite and peat	12 904	12 455	12 122	12 204	12 124	12 355	1.9%
Crude oil	361	436	657	772	728	768	5.4%
Natural Gas	3 249	3 102	3 313	3 492	3 569	3 611	1.2%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	199	185	181	200	196	144	-26.6%
Biomass	3 684	3 572	3 626	3 874	3 933	4 918	25.0%
<b>Imports</b>							
Total	30 053	29 297	30 261	30 622	31 249	31 708	1.5%
<i>among which:</i> Hard coal	2 891	1 609	1 008	1 243	1 755	1 592	-9.3%
Crude oil and feedstocks	15 789	17 097	18 956	18 031	18 088	17 721	-2.0%
Petroleum products	4 472	4 023	3 362	3 746	4 282	4 410	3.0%
Natural Gas	6 487	6 256	6 641	7 212	6 715	7 537	12.2%
Electricity	396	300	283	370	384	429	11.5%
<b>Exports</b>							
Total	20 808	19 774	20 130	21 236	21 199	18 368	-13.4%
<i>among which:</i> Crude oil and feedstocks	-	-	130	443	497	162	-67.5%
Petroleum products	1 561	1 787	1 808	2 248	2 295	1 973	-14.0%
Natural gas	33	33	34	34	35	38	10.1%
Electricity	695	725	831	949	992	1 302	31.3%
<b>Gross inland consumption</b>							
Total	97 419	93 742	90 779	90 798	89 396	94 109	5.3%
<i>among which:</i> Solid fuels	64 770	60 741	56 358	55 822	54 797	57 668	5.2%
Crude oil and petrol. prod.	19 098	19 997	20 759	20 631	20 450	20 449	0.0%
Natural gas	9 514	9 263	9 960	10 377	10 113	11 261	11.3%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	3 916	3 753	3 804	4 078	4 142	5 078	22.6%
<b>Transformation input</b>							
Total	68 643	67 805	69 850	69 776	67 663	70 769	4.6%
<i>among which:</i> Crude oil and feedstocks	17 159	18 343	19 949	19 583	18 782	18 494	-1.5%
Petroleum products	467	447	374	397	369	337	-8.6%
Hard coal	36 405	34 768	35 280	35 472	34 288	36 889	7.6%
Lignite and peat	12 809	12 468	12 071	12 107	11 807	12 378	4.8%
Renewables	89	89	93	130	130	156	20.4%
<b>Transformation output</b>							
Total	46 979	46 519	47 571	48 031	46 266	49 027	6.0%
<i>among which:</i> Electricity	11 905	11 852	12 129	12 157	12 052	12 744	5.7%
Heat	9 352	8 873	8 137	8 843	8 394	8 795	4.8%

**Final energy consumption**

Total	60 378	58 716	55 588	56 206	54 396	56 606	4.1%
<i>among which:</i> Solid fuels	17 249	16 231	13 728	13 250	12 334	11 533	-6.5%
Petroleum products	15 167	16 155	15 452	15 424	15 080	16 111	6.8%
Natural Gas	6 462	5 997	6 118	6 499	6 628	7 037	6.2%
Renewables	3 624	3 477	3 524	3 743	3 804	4 757	25.0%
Electricity	8 155	7 918	8 317	8 328	8 212	8 456	3.0%

**Final energy consumption by sector**
**Industry**

Total	21 111	18 450	18 883	17 358	16 570	17 149	3.5%
<i>among which:</i> Solid fuels	9 349	7 879	7 614	6 564	6 005	5 623	-6.3%
Petroleum Products	2 000	1 878	1 892	1 762	1 761	1 774	0.7%
Natural Gas	2 249	2 052	2 269	2 255	2 243	2 360	5.2%
Renewables	594	579	625	627	700	729	4.0%
Electricity	3 761	3 389	3 478	3 355	3 283	3 456	5.3%


**Transport**

Total	9 509	10 535	9 185	9 169	8 982	11 107	23.7%
<i>among which:</i> Motor spirit	5 204	6 004	5 216	4 838	4 432	4 279	-3.4%
Diesel oil	3 269	3 410	2 761	2 963	2 845	4 030	41.7%
Jet fuel	257	228	369	347	423	287	-32.3%
Electricity	390	380	372	369	371	378	2.0%

**Services&households**


Total	29 758	29 731	27 519	29 679	28 845	28 350	-1.7%
<i>among which:</i> Solid fuels	7 897	8 352	6 115	6 686	6 330	5 909	-6.6%
Gas oil	3 242	3 354	3 941	4 025	3 935	3 420	-13.1%
Natural Gas	4 213	3 945	3 849	4 244	4 385	4 677	6.7%
Renewables	3 031	2 898	2 899	3 109	3 104	3 071	-1.1%
Electricity	4 004	4 149	4 466	4 605	4 558	4 622	1.4%
Heat	6 557	6 261	5 436	6 158	5 748	5 497	-4.4%

### 3.1 Electricity balance


 eurostat	POLSKA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	142 789	142 128	145 183	145 615	144 126	151 631	5.2%
<i>among which:</i>							
Hydro	4 328	4 282	4 115	4 219	3 906	3 294	-15.7%
Wind	4	4	5	14	61	124	103.3%
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	138 457	137 842	141 063	141 382	140 159	148 213	5.7%
<i>of which:</i>							
Hard coal	77 995	78 280	82 419	80 368	79 913	84 720	6.0%
Lignite and peat	56 102	54 878	53 469	54 603	53 040	55 938	5.5%
Petroleum products	1 890	1 882	1 916	2 397	2 377	2 456	3.3%
Natural gas	345	687	928	1 358	2 198	2 425	10.3%
Derived gases	1 533	1 612	1 779	1 890	1 740	1 934	11.1%
Biomass	592	503	221	444	427	454	6.3%
Industrial wastes	-	-	331	322	464	286	-38.4%
Total net generation	130 278	129 498	132 214	132 665	131 374	138 367	5.3%
<b>Imports and exports</b>							
Total imports	4 608	3 491	3 290	4 306	4 469	4 985	11.5%
Total exports	8 082	8 426	9 663	11 035	11 537	15 146	31.3%
<b>Consumption and losses</b>							
Consumption of the energy branch	27 119	28 410	25 839	25 938	25 527	27 199	6.5%
<i>of which:</i>							
Consumption for pumped-storage	788	838	779	706	622	662	6.4%
Network losses	15 330	14 572	14 234	14 197	14 400	14 310	-0.6%
Final energy consumption	94 848	92 084	96 727	96 856	95 504	98 339	3.0%
<i>of which:</i>							
Industry	43 737	39 416	40 453	39 013	38 181	40 189	5.3%
<i>among which:</i>							
Iron&steel industry	7 454	6 745	7 187	6 261	5 446	6 148	12.9%
Non-ferrous metals	3 622	3 690	3 652	3 654	3 523	3 511	-0.3%
Chemical industry	8 589	8 069	8 502	8 344	8 057	8 575	6.4%
Non-met. mineral prod.	3 493	3 286	3 290	3 115	3 047	3 148	3.3%
Food, drink, tobacco	4 404	3 704	3 755	3 737	3 980	4 259	7.0%
Pulp, paper and print	2 624	2 644	2 672	2 704	2 773	3 004	8.3%
Engineering & metal	5 910	4 989	4 961	4 761	4 705	4 945	5.1%
Other industries	4 146	3 585	3 722	3 951	4 190	4 172	-0.4%
Transport	4 540	4 417	4 329	4 287	4 313	4 398	2.0%
Services & households etc.	46 571	48 251	51 945	53 556	53 010	53 752	1.4%
<i>among which:</i>							
Households	20 314	20 800	21 034	21 376	21 659	22 050	1.8%




## 3.2 Electrical capacity, fuel inputs and heat


		POLSKA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	30 173	30 732	30 559	30 672	30 815	31 407	1.9%
<i>by source:</i>								
Conventional thermal		27 997	28 550	28 372	28 420	28 576	29 099	1.8%
<i>of which:</i>								
Steam		27 997	28 495	28 204	28 252	28 173	28 564	1.4%
Gas turbine		-	55	168	168	403	535	32.8%
Combined cycle		-	-	-	-	-	-	-
Internal combustion		-	-	-	-	-	-	-
Nuclear		-	-	-	-	-	-	-
Hydro		2 174	2 179	2 183	2 233	2 207	2 273	3.0%
<i>among which:</i>								
Pumped storage		1 366	1 366	1 366	1 366	1 366	1 366	0.0%
Wind		2	3	4	19	32	35	9.4%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		28 181	28 761	28 680	28 752	28 922	29 572	2.2%
Autoproducers		1 992	1 971	1 879	1 919	1 893	1 835	-3.1%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	36 399	35 833	35 960	36 231	35 612	37 717	5.9%
<i>among which:</i>								
Hard coal		22 758	22 372	22 742	22 813	22 263	23 613	6.1%
Lignite and peat		12 771	12 434	12 051	12 099	11 799	12 371	4.8%
Petroleum products		245	255	228	220	211	203	-3.6%
Natural gas		98	195	299	405	630	787	24.9%
Renewables		76	76	79	114	110	130	18.3%
Heating plants		5 236	4 900	4 320	4 609	4 152	4 073	-1.9%
<i>among which:</i>								
Hard coal		4 705	4 396	3 862	4 076	3 628	3 559	-1.9%
Lignite and peat		9	11	10	8	7	7	-2.6%
Petroleum products		216	187	142	173	155	134	-13.3%
Natural gas		160	193	217	269	294	299	1.8%
Renewables		13	14	14	16	19	26	32.7%
<b>Heat production and consumption</b>								
Total heat production	TJ	9 352	8 873	8 137	8 843	8 394	8 795	4.8%
<i>among which: in heating plants</i>								
		4 236	3 887	3 437	3 845	3 484	3 411	-2.1%
Heat consumption		8 069	7 618	6 886	7 556	7 112	7 390	3.9%
<i>of which: in industry</i>								
		1 512	1 356	1 450	1 398	1 364	1 893	38.7%
<i>in households and services</i>								
		6 557	6 261	5 436	6 158	5 748	5 497	-4.4%
<i>among which: in households</i>								
		5 828	5 613	4 896	5 527	4 968	4 777	-3.8%

## 4.1 Crude oil and feedstocks


 eurostat	POLSKA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		360	434	653	767	728	765	5.1%
Total imports		15 742	17 004	18 840	17 907	18 077	17 657	-2.3%
Total exports		-	-	129	440	497	161	-67.6%
Stock changes		12	-47	-445	227	-295	-592	-100.7%
Refinery intake		17 099	18 239	19 820	19 439	18 758	18 419	-1.8%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	POLSKA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	16 682	17 811	18 480	18 402	17 593	18 044	2.6%
<i>among which:</i>							
Motor spirit	3 347	4 087	4 257	4 246	3 935	3 920	-0.4%
Kerosene and jet fuel	271	262	428	627	585	656	12.1%
Naphtha	781	705	791	745	882	836	-5.2%
Gas/diesel oil	6 569	6 951	7 154	7 141	6 314	6 722	6.5%
Residual fuel oil	3 705	3 654	3 558	3 424	3 325	3 253	-2.2%
Total imports	4 313	3 854	3 223	3 600	4 108	4 239	3.2%
Total exports	1 637	1 879	1 855	2 272	2 365	2 037	-13.9%
Bunkers	269	551	292	267	276	291	5.4%
Stock changes	-227	180	-313	-6	72	-24	-133.3%
Gross inland consumption	2 283	1 772	945	1 288	1 614	1 952	20.9%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-
Imports by product							
<i>among which:</i>							
Motor spirit	1 662	1 674	901	861	628	537	-14.5%
Kerosene and jet fuel	200	188	191	136	115	1	-99.1%
Gas/diesel oil	1 307	856	695	984	1 460	1 376	-5.8%
Residual fuel oil	136	32	113	185	127	32	-74.8%
Exports by product							
<i>among which:</i>							
Motor spirit	-	-	75	364	386	418	8.3%
Kerosene and jet fuel	34	12	191	392	278	361	29.9%
Gas/diesel oil	13	62	52	166	339	161	-52.5%
Residual fuel oil	1 529	1 566	1 367	1 206	1 017	640	-37.1%
<b>Consumption</b>							
Inputs to electricity plants	256	267	238	230	220	212	-3.6%
Inputs to heating plants	224	193	146	178	159	138	-13.2%
Non-energy use	2 090	2 020	2 439	2 029	2 244	2 194	-2.2%
Final energy consumption	14 755	15 673	14 961	14 944	14 569	15 583	7.0%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	586	543	516	589	554	568	2.5%
Residual fuel oil	853	778	662	503	500	482	-3.6%

 eurostat	POLSKA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	47	54	45	24	8	7	-12.5%	
Non-ferrous metals	19	18	21	19	15	12	-20.0%	
Chemical industry	934	883	911	821	810	806	-0.5%	
Non-met. mineral prod.	220	196	146	170	200	196	-2.0%	
Food, drink, tobacco	234	242	252	257	267	268	0.4%	
Pulp, paper and print	63	54	51	50	50	52	4.0%	
Engineering & metal	92	76	89	82	63	64	1.6%	
Other industries	274	233	231	202	209	219	4.8%	
<b>Transport</b>	8 788	9 777	8 480	8 461	8 274	9 410	13.7%	
<i>among which:</i>								
Motor spirit	4 952	5 713	4 963	4 604	4 217	4 072	-3.4%	
Jet fuel	250	222	359	338	412	279	-32.3%	
Diesel oil	3 236	3 375	2 733	2 933	2 816	3 989	41.7%	
<b>Services &amp; households etc.</b>	3 974	4 047	4 665	4 797	4 615	4 482	-2.9%	
<i>among which:</i>								
Gas oil	3 209	3 320	3 901	3 984	3 895	3 385	-13.1%	
Residual fuel oil	142	137	140	131	97	300	209.3%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	951	998	1 443	1 216	1 511	2 103	39.2%	
Petroleum products	1 178	998	1 311	1 317	1 244	1 268	1.9%	


## 5. Natural gas

 eurostat	POLSKA							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		151 125	144 314	154 138	162 449	166 037	167 997	1.2%
Total imports		301 795	291 046	308 917	335 498	312 390	350 607	12.2%
Total exports		1 542	1 539	1 562	1 573	1 605	1 767	10.1%
Stock changes		-8 773	-2 896	1 832	-13 655	-6 356	7 010	210.3%
Gross inland consumption		442 605	430 925	463 325	482 719	470 466	523 847	11.3%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		4 538	9 053	13 914	18 859	29 327	36 626	24.9%
Inputs to heat plants		7 427	8 958	10 115	12 521	13 673	13 924	1.8%
Consumption of energy branch		53 533	50 598	54 180	47 046	48 841	46 382	-5.0%
Distribution losses		18 258	12 379	15 823	14 078	7 708	10 196	32.3%
Non-energy use		82 650	70 201	85 355	79 538	60 675	86 969	43.3%
Industry		104 622	95 479	105 541	104 920	104 330	109 764	5.2%
<i>among which:</i>								
Iron&steel industry		25 688	22 999	23 869	19 179	16 280	16 263	-0.1%
Non-ferrous metals		6 265	6 289	6 460	6 333	6 210	6 520	5.0%
Chemical industry		10 453	10 046	10 516	9 423	7 999	7 174	-10.3%
Non-met. mineral prod.		30 108	26 574	31 085	35 398	36 926	39 538	7.1%
Food, drink, tobacco		11 882	10 283	11 660	12 626	13 878	16 750	20.7%
Pulp, paper and print		626	1 119	1 345	1 606	1 623	2 327	43.4%
Engineering & metal		10 800	10 647	11 872	11 487	11 580	12 218	5.5%
Other industries		4 608	4 555	5 352	5 446	6 235	5 493	-11.9%
Transport		-	-	-	-	-	-	-
Services & households etc.		196 006	183 520	179 061	197 415	204 009	217 579	6.7%
<i>among which:</i>								
Households		153 631	151 106	141 790	148 597	141 214	141 810	0.4%
Services		41 410	31 885	36 676	47 955	61 779	74 439	20.5%


## 6.1 Hard coal

 eurostat	POLSKA						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 t</i>							
<b>Primary production and supply</b>							
Primary production	115 145	109 322	102 219	103 280	102 723	101 659	-1.0%
Total imports	4 198	2 361	1 452	1 878	2 737	2 517	-8.0%
Total exports	28 055	24 102	23 245	23 029	22 623	20 119	-11.1%
Stock changes	1 538	557	1 833	1 303	-1 561	96	106.1%
Gross inland consumption	93 407	89 040	83 371	84 144	82 258	85 368	3.8%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
USA	-	-	-	-	-	-	-
POLSKA	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-
<b>Consumption</b>							
Inputs to electricity plants	43 746	43 413	44 514	44 242	43 175	45 631	5.7%
Inputs to heat plants	9 045	8 115	7 164	7 905	7 036	6 878	-2.2%
Consumption of energy branch	2 431	2 053	1 619	1 581	977	1 157	18.4%
Industry	12 659	10 517	9 713	8 292	7 379	6 247	-15.3%
<i>among which:</i>							
Iron&steel industry	905	813	790	546	340	351	3.2%
Non-ferrous metals	143	133	132	156	108	90	-16.7%
Chemical industry	2 361	2 156	2 168	2 076	1 940	1 190	-38.7%
Non-met. mineral prod.	2 860	2 558	2 307	1 761	1 450	1 291	-11.0%
Food, drink, tobacco	2 776	1 977	1 878	1 715	1 784	1 661	-6.9%
Pulp, paper and print	813	748	679	667	611	598	-2.1%
Engineering & metal	1 111	789	604	471	380	361	-5.0%
Other industries	781	630	545	541	480	479	-0.2%
Services & households etc.	12 008	12 877	9 604	10 820	10 184	9 443	-7.3%
<b>Structural data</b>							
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-


## 6.2 Coal derivatives and peat

	POLSKA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	9 747	8 368	8 972	8 946	8 723	10 112	15.9%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	62 820	60 839	59 484	59 552	58 210	60 920	4.7%
Brown coal briquettes	63	49	21	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	81 619	69 988	76 499	76 676	72 856	83 434	14.5%
Blast-furnace gas	34 289	28 179	37 053	31 904	28 752	31 031	7.9%
Gasworks gas	607	338	186	176	161	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	4 794	4 238	4 213	3 662	3 512	3 674	4.6%
<i>among which:</i>							
Iron & steel industry	2 642	2 272	2 745	2 400	2 273	2 441	7.4%
Services & households	1 373	1 259	820	684	685	688	0.4%
Patent Fuel	-	-	2	1	2	1	-50.0%
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	491	349	295	337	363	394	8.5%
<i>among which:</i>							
Industry	119	70	48	33	33	25	-24.2%
Services & households	372	279	247	304	330	369	11.8%
Brown coal briquettes	8	28	21	2	2	2	0.0%
<i>among which:</i>							
Industry	2	2	2	2	1	2	100.0%
Services & households	6	26	19	-	1	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	28 794	18 684	20 046	19 955	17 636	19 035	7.9%
Blast-furnace gas	29 534	24 046	31 896	24 636	19 390	19 524	0.7%
Gasworks gas	603	525	181	172	152	-	-
Inputs to electricity plants	16 842	19 884	22 064	22 697	22 161	24 612	11.1%
Inputs to heat plants	1 438	1 265	1 246	1 257	867	1 139	31.4%
Consumption of energy branch	39 163	34 029	37 123	39 078	40 436	49 331	22.0%
Consumption in industry	58 703	43 068	51 942	44 591	37 026	38 559	4.1%

## 7. Renewable energy sources


		POLSKA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	3 883	3 757	3 810	4 078	4 141	5 080	22.7%
Hydro (excl. pumping)		199	185	181	200	196	144	-26.6%
Wind		0	0	0	1	5	11	103.3%
Solar		-	-	-	-	-	-	-
Geothermal		-	-	3	3	6	7	18.3%
Biomass		3 684	3 572	3 626	3 874	3 933	4 918	25.0%
	<i>among which:</i>							
Wood, wood-waste		3 663	3 546	3 594	3 831	3 901	3 921	0.5%
Municipal solid waste		-	0	2	1	0	1	47.4%
Biogas		21	25	30	35	32	39	20.3%
Gross inland consumption		3 916	3 753	3 804	4 078	4 142	5 078	22.6%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		89	89	93	130	130	156	20.4%
	<i>among which:</i>							
Wood, wood-waste		88	81	83	117	115	139	20.6%
Municipal waste		-	-	-	-	-	-	-
Biogas		1	8	11	13	15	18	19.3%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	3 624	3 477	3 527	3 746	3 810	4 764	25.0%
	<i>by sector:</i>							
Industry		594	579	625	627	700	729	4.0%
Services & households etc.		3 031	2 898	2 902	3 112	3 110	3 078	-1.0%
Transport		-	-	-	7	-	957	-
	<i>by source:</i>							
Biomass		3 624	3 477	3 524	3 743	3 804	4 757	25.0%
	<i>among which:</i>							
Wood, wood-waste		3 609	3 461	3 504	3 714	3 787	3 780	-0.2%
Municipal waste		-	0	2	1	0	1	15.8%
Biogas		16	16	18	22	17	18	6.5%
Geothermal		-	-	3	3	6	7	18.3%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		216	208	298	239	262	243	-7.3%
Hydro with installed capacity > 1 & <10 MW		565	500	422	532	585	431	-26.3%
Hydro with installed capacity > 10 MW		1 528	1 446	1 386	1 554	1 432	998	-30.3%
Wood, Wood-waste		206	169	190	402	379	398	5.0%
Municipal waste		-	-	-	-	-	-	-
Biogas		:	:	31	42	48	56	16.7%



	POLSKA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	61	64	57	76	60	63	5.0%
Hydro with installed capacity > 1 & <10 MW	93	93	98	106	150	164	9.3%
Hydro with installed capacity > 10 MW	654	656	662	686	630	680	7.9%
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	5	7	9	12	14	18	28.6%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	9	-	1 179	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		PORTUGAL					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	3 036	2 656	3 109	3 895	3 643	4 300
Net energy imports		19 406	22 083	21 588	21 538	22 252	22 087
Net oil imports		15 482	16 467	15 556	16 298	15 888	15 931
Net gas imports		697	1 953	2 039	2 252	2 727	2 643
Gross inland energy consumption		22 246	23 892	24 108	24 760	25 966	25 331
Final energy consumption		15 421	15 982	16 937	18 069	18 342	18 301
Industry		5 240	5 263	5 518	6 311	5 812	5 654
Transport		5 704	6 043	6 517	6 548	7 126	7 086
Services and households etc.		4 477	4 676	4 903	5 210	5 404	5 561
Gross electricity generation	GWh	38 982	43 274	43 764	46 509	46 107	46 852
Final electricity consumption		33 845	36 120	38 373	39 937	41 473	43 164
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	93 023	96 559	99 821	101 534	101 957	100 792
Population	1000 per.	10 110	10 149	10 195	10 257	10 329	10 408
Industry added value	Mio EUR	26 402	26 849	27 704	28 288	27 817	27 069
Total imports (current prices)	Mio EUR	39 682	43 037	45 416	45 908	45 833	45 770
among which:							
All energy commodities		1 813	2 535	4 439	4 270	4 096	4 221
Oil products		1 460	2 024	3 557	3 367	3 172	3 251
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	239.1	247.4	241.5	243.9	254.7	251.3
Final energy consumption / GDP(95)		165.8	165.5	169.7	178.0	179.9	181.6
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		198.5	196.0	199.2	223.1	208.9	208.9
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		21.8	21.4	22.7	29.2	28.0	30.9
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 200	2 354	2 365	2 414	2 514	2 434
Final energy consumption / capita		1 525	1 575	1 661	1 762	1 776	1 758
Household consumption / capita		264	274	275	279	302	299
Electricity consumption / capita	kWh/cap.	2 583	3 416	3 218	3 131	3 813	3 180
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	85.8	90.2	87.2	85.4	84.1	85.3
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	69.3	66.9	70.3	73.0	70.6	72.2
Efficiency of thermal power stations		42.8	43.7	44.2	45.9	45.1	45.3

## 2. Energy balance

### Principal aggregates by product

 eurostat	PORTUGAL						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	3 036	2 656	3 109	3 895	3 643	4 300	18.0%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	1 116	625	974	1 207	671	1 352	101.6%
Biomass	1 844	1 933	2 053	2 583	2 838	2 806	-1.1%
<b>Imports</b>							
Total	21 706	23 912	23 371	23 194	23 909	24 028	0.5%
<i>among which:</i> Hard coal	3 257	3 790	3 968	2 967	3 461	3 263	-5.7%
Crude oil and feedstocks	13 824	13 754	12 022	13 089	11 948	13 325	11.5%
Petroleum products	3 586	4 102	4 938	4 564	5 302	4 280	-19.3%
Natural Gas	697	1 953	2 039	2 252	2 727	2 643	-3.1%
Electricity	342	312	404	322	458	507	10.7%
<b>Exports</b>							
Total	2 300	1 830	1 783	1 656	1 657	1 942	17.2%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	1 928	1 389	1 404	1 355	1 362	1 675	23.0%
Natural gas	-	-	-	-	-	-	-
Electricity	318	386	324	301	295	267	-9.5%
<b>Gross inland consumption</b>							
Total	22 246	23 892	24 108	24 760	25 966	25 331	-2.4%
<i>among which:</i> Solid fuels	3 171	3 790	3 803	3 192	3 476	3 281	-5.6%
Crude oil and petrol. prod.	15 319	15 574	15 083	15 396	15 955	14 874	-6.8%
Natural gas	697	1 945	2 034	2 255	2 729	2 636	-3.4%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	3 036	2 656	3 109	3 895	3 643	4 300	18.0%
<b>Transformation input</b>							
Total	19 924	21 209	19 207	19 425	20 119	19 566	-2.7%
<i>among which:</i> Crude oil and feedstocks	14 090	13 546	12 251	13 013	12 522	13 317	6.3%
Petroleum products	2 121	2 234	1 670	1 919	2 324	1 256	-46.0%
Hard coal	2 975	3 594	3 543	3 025	3 298	3 138	-4.9%
Lignite and peat	-	-	-	-	-	-	-
Renewables	157	242	356	178	374	369	-1.5%
<b>Transformation output</b>							
Total	16 667	17 001	15 523	15 970	15 909	16 104	1.2%
<i>among which:</i> Electricity	2 222	3 055	2 741	2 741	3 223	2 606	-19.2%
Heat	80	86	134	162	200	226	12.7%

**Final energy consumption**

Total	15 421	15 982	16 937	18 069	18 342	18 301	-0.2%
<i>among which:</i> Solid fuels	413	403	465	203	177	143	-19.2%
Petroleum products	9 973	10 089	10 469	10 797	10 731	10 556	-1.6%
Natural Gas	234	489	790	1 040	1 183	1 206	1.9%
Renewables	1 687	1 690	1 697	2 405	2 464	2 438	-1.0%
Electricity	2 910	3 106	3 299	3 434	3 566	3 711	4.1%

**Final energy consumption by sector**
**Industry**

Total	5 240	5 263	5 518	6 311	5 812	5 654	-2.7%
<i>among which:</i> Solid fuels	413	403	465	203	177	143	-19.2%
Petroleum Products	2 697	2 473	2 326	2 475	1 801	1 646	-8.6%
Natural Gas	220	435	659	831	917	918	0.1%
Renewables	537	540	547	1 255	1 314	1 288	-2.0%
Electricity	1 253	1 298	1 372	1 390	1 416	1 446	2.1%


**Transport**

Total	5 704	6 043	6 517	6 548	7 126	7 086	-0.6%
<i>among which:</i> Motor spirit	2 133	2 188	2 234	2 100	2 174	2 109	-3.0%
Diesel oil	2 893	3 059	3 439	3 636	4 147	4 129	-0.4%
Jet fuel	647	740	790	755	742	780	5.1%
Electricity	31	31	31	31	35	37	5.8%


**Services&households**

Total	4 477	4 676	4 903	5 210	5 404	5 561	2.9%
<i>among which:</i> Solid fuels	-	-	-	-	-	-	-
Gas oil	769	808	908	1 091	789	861	9.1%
Natural Gas	15	54	131	204	259	279	7.6%
Renewables	1 150	1 150	1 150	1 150	1 150	1 150	0.0%
Electricity	1 626	1 777	1 897	2 014	2 115	2 228	5.4%
Heat	3	6	7	9	13	13	-3.6%


### 3.1 Electricity balance

 eurostat	PORTUGAL						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	38 982	43 274	43 764	46 509	46 107	46 852	1.6%
<i>among which:</i>							
Hydro	13 054	7 619	11 715	14 375	8 257	16 054	94.4%
Wind	88	123	168	256	362	496	37.0%
Geothermal	58	80	80	105	96	90	-6.3%
Nuclear	-	-	-	-	-	-	-
Conventional thermal	25 782	35 452	31 801	31 773	37 392	30 212	-19.2%
<i>of which:</i>							
Hard coal	11 979	15 046	14 595	13 606	15 212	14 527	-4.5%
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	10 687	11 009	8 421	9 338	11 407	6 162	-46.0%
Natural gas	2 018	8 074	7 138	7 212	9 037	7 740	-14.4%
Derived gases	76	85	93	16	-	-	-
Biomass	1 022	1 238	1 553	1 600	1 734	1 777	2.5%
Industrial wastes	-	-	1	1	2	6	200.0%
Total net generation	37 477	41 739	42 215	44 844	44 390	45 375	2.2%
<b>Imports and exports</b>							
Total imports	3 974	3 628	4 698	3 741	5 329	5 898	10.7%
Total exports	3 700	4 488	3 767	3 502	3 430	3 104	-9.5%
<b>Consumption and losses</b>							
Consumption of the energy branch	2 101	2 302	2 281	2 413	2 574	2 270	-11.8%
<i>of which:</i>							
Consumption for pumped-storage	30	146	166	144	213	154	-27.7%
Network losses	3 240	3 648	3 649	4 057	3 502	3 881	10.8%
Final energy consumption	33 845	36 120	38 373	39 937	41 473	43 164	4.1%
<i>of which:</i>							
Industry	14 574	15 094	15 954	16 161	16 470	16 820	2.1%
<i>among which:</i>							
Iron&steel industry	728	777	818	749	863	1 088	26.1%
Non-ferrous metals	106	113	113	116	117	116	-0.9%
Chemical industry	2 074	2 135	2 310	2 303	2 331	2 480	6.4%
Non-met. mineral prod.	2 086	2 213	2 251	2 307	2 350	2 233	-5.0%
Food, drink, tobacco	1 432	1 477	1 564	1 576	1 603	1 644	2.6%
Pulp, paper and print	1 949	1 965	2 054	2 097	1 995	2 229	11.7%
Engineering & metal	1 337	1 410	1 508	1 571	1 547	1 613	4.3%
Other industries	2 121	2 245	2 585	2 740	2 892	2 884	-0.3%
Transport	366	365	360	358	411	435	5.8%
Services & households etc.	18 905	20 661	22 059	23 418	24 592	25 909	5.4%
<i>among which:</i>							
Households	8 784	9 523	10 056	10 625	11 382	11 835	4.0%


## 3.2 Electrical capacity, fuel inputs and heat

	PORTUGAL							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	9 786	10 750	10 898	10 990	11 239	11 619	3.4%
<i>by source:</i>								
Conventional thermal		5 227	6 156	6 275	6 291	6 448	6 749	4.7%
<i>of which:</i>								
Steam		4 055	4 009	4 071	4 061	4 146	4 129	-0.4%
Gas turbine		329	329	329	329	329	197	-40.1%
Combined cycle		225	990	990	990	990	1 382	39.6%
Internal combustion		618	828	885	911	983	1 041	5.9%
Nuclear		-	-	-	-	-	-	-
Hydro		4 501	4 527	4 526	4 560	4 587	4 588	0.0%
<i>among which:</i>								
Pumped storage		561	597	597	597	597	597	0.0%
Wind		48	57	83	125	190	268	41.1%
Geothermal		10	10	14	14	14	14	0.0%
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		8 986	9 787	9 800	9 879	10 020	10 397	3.8%
Autoproducers		800	963	1 099	1 112	1 220	1 224	0.3%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	5 378	7 195	6 507	6 324	7 596	6 249	-17.7%
<i>among which:</i>								
Hard coal		2 646	3 256	3 198	2 961	3 298	3 138	-4.9%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		2 112	2 234	1 670	1 919	2 324	1 256	-46.0%
Natural gas		377	1 354	1 171	1 189	1 517	1 409	-7.1%
Renewables		208	312	405	243	457	446	-2.4%
Heating plants		-	-	-	-	-	-	-
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	80	86	134	162	200	226	12.7%
<i>among which: in heating plants</i>								
		-	-	-	-	-	-	-
Heat consumption		80	86	134	162	200	226	12.7%
<i>of which: in industry</i>								
		78	80	127	152	187	213	13.9%
<i>in households and services</i>								
		3	6	7	9	13	13	-3.6%
<i>among which: in households</i>								
		3	3	4	4	7	8	6.4%


## 4.1 Crude oil and feedstocks

 eurostat	PORTUGAL							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		13 919	13 807	12 133	13 158	11 861	13 276	11.9%
Total exports		-	-	-	-	-	-	-
Stock changes		220	-346	138	-193	427	-73	-117.1%
Refinery intake		14 186	13 594	12 362	13 079	12 430	13 267	6.7%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		8 767	8 325	7 721	7 594	6 519	6 681	2.5%
Near and Middle East		6 796	5 645	4 522	2 788	3 120	2 025	-35.1%
Africa		2 598	3 000	3 958	5 112	3 867	5 835	50.9%
<i>by country of origin:</i>								
Algeria		-	-	-	319	555	-	-
Nigeria		2 137	2 293	3 277	3 637	2 579	2 988	15.9%
Saudi Arabia		2 704	1 971	1 954	1 965	1 822	1 694	-7.0%
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		589	1 275	868	799	518	640	23.6%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	14 400	14 400	14 400	:	:	:	
<i>among which:</i>								
Cracking and others		3 720	3 720	3 700	:	:	:	
Reforming		2 230	2 230	2 200	:	:	:	


## 4.2 Petroleum products

 eurostat	PORTUGAL						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	14 040	13 482	12 352	13 061	12 393	13 223	6.7%
<i>among which:</i>							
Motor spirit	2 792	2 654	2 296	2 615	2 518	2 732	8.5%
Kerosene and jet fuel	1 078	965	799	621	513	704	37.2%
Naphtha	904	1 007	996	986	1 084	1 130	4.2%
Gas/diesel oil	4 368	4 279	3 794	4 533	4 827	4 955	2.7%
Residual fuel oil	3 185	3 141	3 000	2 703	2 358	2 388	1.3%
Total imports	3 716	4 302	5 118	4 839	5 716	4 602	-19.5%
Total exports	1 901	1 389	1 424	1 355	1 373	1 675	22.0%
Bunkers	391	599	676	483	493	591	19.9%
Stock changes	-23	97	-6	-262	149	-404	-371.1%
Gross inland consumption	1 401	2 411	3 012	2 739	3 999	1 932	-51.7%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	224	486	597	451	411	481	17.0%
United Kingdom	1 011	951	650	792	1 050	613	-41.6%
Norway	56	36	63	71	112	65	-42.0%
OPEC	236	94	178	564	790	591	-25.2%
Imports by product							
<i>among which:</i>							
Motor spirit	3	14	157	12	63	57	-9.5%
Kerosene and jet fuel	-	1	77	156	193	109	-43.5%
Gas/diesel oil	143	268	1 271	943	620	949	53.1%
Residual fuel oil	1 578	1 795	1 226	1 313	2 111	1 010	-52.2%
Exports by product							
<i>among which:</i>							
Motor spirit	789	588	397	635	540	782	44.8%
Kerosene and jet fuel	368	221	99	13	-	20	-
Gas/diesel oil	290	78	152	90	6	51	750.0%
Residual fuel oil	164	164	483	195	319	352	10.3%
<b>Consumption</b>							
Inputs to electricity plants	2 215	2 338	1 747	2 007	2 431	1 313	-46.0%
Inputs to heating plants	-	-	-	-	-	-	-
Non-energy use	2 172	2 354	2 344	1 940	1 968	2 206	12.1%
Final energy consumption	9 884	10 001	10 348	10 712	10 660	10 488	-1.6%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	390	383	431	469	374	367	-1.9%
Residual fuel oil	1 635	1 375	1 266	1 292	770	649	-15.7%




 eurostat	PORTUGAL							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	42	37	36	31	29	29	0.0%	
Non-ferrous metals	42	17	17	14	1	1	0.0%	
Chemical industry	398	99	97	437	201	219	9.0%	
Non-met. mineral prod.	964	1 095	956	999	826	777	-5.9%	
Food, drink, tobacco	282	250	255	213	209	206	-1.4%	
Pulp, paper and print	346	350	325	248	165	123	-25.5%	
Engineering & metal	40	39	38	34	38	42	10.5%	
Other industries	395	394	392	389	318	284	-10.7%	
<b>Transport</b>	5 523	5 853	6 319	6 352	6 915	6 873	-0.6%	
<i>among which:</i>								
Motor spirit	2 030	2 082	2 126	1 998	2 069	2 007	-3.0%	
Jet fuel	630	721	769	735	722	759	5.1%	
Diesel oil	2 863	3 028	3 404	3 599	4 105	4 087	-0.4%	
<b>Services &amp; households etc.</b>	1 529	1 526	1 582	1 734	1 768	1 792	1.4%	
<i>among which:</i>								
Gas oil	761	800	899	1 080	781	852	9.1%	
Residual fuel oil	54	-	-	-	190	166	-12.6%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	853	1 199	1 061	1 255	828	838	1.2%	
Petroleum products	1 775	1 899	1 903	2 202	2 059	2 463	19.6%	


## 5. Natural gas

 eurostat	PORTUGAL								
	in TJ (GCV)		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		-	-	-	-	-	-	-	-
Total imports		32 434	90 866	94 864	104 769	126 847	122 968	-3.1%	
Total exports		-	-	-	-	-	-	-	
Stock changes		-	-362	-251	137	122	-328	-368.9%	
Gross inland consumption		32 434	90 504	94 613	104 906	126 969	122 640	-3.4%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		-	-	-	-	-	-	-	-
Algeria		32 434	90 866	82 351	93 143	109 956	100 816	-8.3%	
Norway		-	-	-	-	-	-	-	
<b>Consumption</b>									
Inputs to electricity plants		17 555	62 969	54 482	55 325	70 586	65 545	-7.1%	
Inputs to heat plants		-	-	-	-	-	-	-	
Consumption of energy branch		-	-	-	-	-	-	-	
Distribution losses		80	120	120	57	1 337	968	-27.6%	
Non-energy use		-	-	-	-	-	-	-	
Industry		10 222	20 239	30 648	38 653	42 652	42 709	0.1%	
<i>among which:</i>									
Iron&steel industry		732	908	976	1 050	1 301	1 585	21.8%	
Non-ferrous metals		20	40	438	263	307	309	0.7%	
Chemical industry		708	1 365	2 174	2 730	2 948	3 207	8.8%	
Non-met. mineral prod.		7 942	14 844	20 144	23 553	24 804	22 825	-8.0%	
Food, drink, tobacco		362	880	1 246	2 055	2 389	3 067	28.4%	
Pulp, paper and print		3	343	308	803	1 175	1 667	41.9%	
Engineering & metal		419	768	1 337	1 663	1 881	2 059	9.5%	
Other industries		13	187	373	741	1 040	1 364	31.2%	
Transport		-	-	51	207	320	413	29.1%	
Services & households etc.		675	2 524	6 073	9 507	12 068	12 982	7.6%	
<i>among which:</i>									
Households		358	1 681	3 404	5 448	6 816	7 351	7.8%	
Services		279	580	2 663	3 967	5 109	5 472	7.1%	


## 6.1 Hard coal


 eurostat	PORTUGAL						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 t</i>							
<b>Primary production and supply</b>							
Primary production	-	-	-	-	-	-	-
Total imports	5 113	6 080	6 367	4 807	5 667	5 344	-5.7%
Total exports	-	-	-	-	-	-	-
Stock changes	-14	46	-213	338	1	18	1700.0%
Gross inland consumption	5 099	6 126	6 154	5 145	5 668	5 362	-5.4%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
USA	667	782	541	529	114	354	210.5%
Poland	-	-	-	-	335	-	-
CIS	-	55	90	28	-	-	-
Australia	237	739	-	399	838	668	-20.3%
South Africa	1 816	1 570	2 426	1 462	2 120	2 079	-1.9%
Colombia	1 892	2 522	2 846	1 815	1 583	1 945	22.9%
<b>Consumption</b>							
Inputs to electricity plants	4 154	5 263	5 171	4 788	5 401	5 139	-4.9%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Industry	474	380	484	265	267	215	-19.5%
<i>among which:</i>							
Iron&steel industry	-	-	-	-	-	-	-
Non-ferrous metals	-	-	-	-	-	-	-
Chemical industry	-	-	-	-	-	12	-
Non-met. mineral prod.	474	380	484	265	267	203	-24.0%
Food, drink, tobacco	-	-	-	-	-	-	-
Pulp, paper and print	-	-	-	-	-	-	-
Engineering & metal	-	-	-	-	-	-	-
Other industries	-	-	-	-	-	-	-
Services & households etc.	-	-	-	-	-	-	-
<b>Structural data</b>							
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-

## 6.2 Coal derivatives and peat

 eurostat	PORTUGAL						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	352	363	371	67	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	3 059	2 803	2 930	548	-	-	-
Blast-furnace gas	1 687	1 788	1 926	435	-	-	-
Gasworks gas	3 419	3 468	2 073	219	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	179	257	257	64	21	10	-52.4%
<i>among which:</i>							
Iron & steel industry	160	171	179	41	-	-	-
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	452	501	503	75	-	-	-
Blast-furnace gas	1 286	936	390	134	-	-	-
Gasworks gas	3 085	3 145	1 990	211	-	-	-
Inputs to electricity plants	1 569	1 755	2 779	557	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	1 379	1 197	1 130	209	-	-	-
Consumption in industry	1 807	1 498	937	213	-	-	-


## 7. Renewable energy sources

		PORTUGAL						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	3 036	2 656	3 109	3 895	3 643	4 300	18.0%
Hydro (excl. pumping)		1 116	625	974	1 207	671	1 352	101.6%
Wind		8	11	14	22	31	43	37.0%
Solar		17	18	18	19	20	21	3.8%
Geothermal		51	70	49	64	84	78	-6.2%
Biomass		1 844	1 933	2 053	2 583	2 838	2 806	-1.1%
	<i>among which:</i>							
Wood, wood-waste		1 842	1 875	1 878	2 582	2 655	2 616	-1.4%
Municipal solid waste		-	57	174	175	182	189	3.8%
Biogas		2	1	1	1	1	1	-10.3%
Gross inland consumption		3 036	2 656	3 109	3 895	3 643	4 300	18.0%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		51	70	49	64	83	77	-6.3%
Biomass		157	242	356	178	374	369	-1.5%
	<i>among which:</i>							
Wood, wood-waste		155	184	180	177	191	178	-6.6%
Municipal waste		-	57	174	175	182	189	3.8%
Biogas		2	1	1	1	1	1	-10.3%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	1 703	1 708	1 716	2 424	2 484	2 459	-1.0%
	<i>by sector:</i>							
Industry		537	540	547	1 255	1 314	1 288	-2.0%
Services & households etc.		1 167	1 168	1 168	1 169	1 171	1 171	0.1%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		1 687	1 690	1 697	2 405	2 464	2 438	-1.0%
	<i>among which:</i>							
Wood, wood-waste		1 687	1 690	1 697	2 405	2 464	2 438	-1.0%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
Geothermal		-	-	-	-	1	1	0.0%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		1	1	1	1	2	3	50.0%
Hydro with installed capacity < 1 MW		43	58	73	71	66	84	27.3%
Hydro with installed capacity > 1 & <10 MW		523	531	805	911	851	1 078	26.7%
Hydro with installed capacity > 10 MW		12 417	6 697	10 445	13 052	6 883	14 561	111.6%
Wood, Wood-waste		1 022	1 080	1 037	1 086	1 208	1 223	1.2%
Municipal waste		-	157	514	511	523	551	5.4%
Biogas		1	1	2	3	3	3	0.0%

		PORTUGAL						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		1	1	1	1	2	2	0.0%
Hydro with installed capacity < 1 MW		19	22	27	27	28	30	7.1%
Hydro with installed capacity > 1 & <10 MW		228	235	280	290	316	315	-0.3%
Hydro with installed capacity > 10 MW		3 490	3 474	3 622	3 646	3 646	3 646	0.0%
Wood, Wood-waste		209	233	219	214	233	224	-3.9%
Municipal waste		-	81	64	64	71	71	0.0%
Biogas		1	1	1	1	1	1	0.0%
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	-	-	-	-
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	223	230	238	246	254	261	2.8%


# 1. Energy economy

## Key figures and energy indicators

		SLOVENIJA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	3 036	2 861	3 037	3 146	3 364	3 263
Net energy imports		3 325	3 553	3 403	3 447	3 459	3 713
Net oil imports		2 453	2 524	2 409	2 490	2 434	2 492
Net gas imports		812	849	863	845	815	902
Gross inland energy consumption		6 404	6 330	6 454	6 781	6 907	6 948
Final energy consumption		4 272	4 352	4 477	4 558	4 620	4 738
Industry		1 166	1 212	1 460	1 348	1 321	1 571
Transport		1 377	1 311	1 313	1 372	1 390	1 336
Services and households etc.		1 729	1 830	1 704	1 837	1 908	1 831
Gross electricity generation	GWh	13 728	13 262	13 624	14 466	14 690	14 019
Final electricity consumption		10 090	10 361	10 521	10 942	11 781	12 521
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	17 226	18 183	18 891	19 397	20 042	20 548
Population	1000 per.	1 985	1 978	1 988	1 990	1 994	1 995
Industry added value	Mio EUR	5 568	5 837	6 250	6 490	6 754	6 975
Total imports (current prices)	Mio EUR	10 322	11 152	11 999	12 362	12 963	13 841
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	371.8	348.1	341.6	349.6	344.6	338.1
Final energy consumption / GDP(95)		248.0	239.4	237.0	235.0	230.5	230.6
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		209.5	207.6	233.6	207.8	195.7	225.2
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		77.8	78.8	59.9	71.7	69.9	55.2
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 226	3 200	3 247	3 407	3 464	3 483
Final energy consumption / capita		2 152	2 200	2 252	2 290	2 317	2 375
Household consumption / capita		528	555	565	561	598	625
Electricity consumption / capita	kWh/cap.	4 212	4 136	4 260	4 471	5 091	5 527
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	51.9	56.1	52.7	50.8	50.1	53.4
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	66.7	68.8	69.4	67.2	66.9	68.2
Efficiency of thermal power stations		41.0	44.3	43.7	41.6	41.2	43.2

## 2. Energy balance

### Principal aggregates by product

 eurostat	SLOVENIJA						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	3 036	2 861	3 037	3 146	3 364	3 263	-3.0%
<i>among which:</i> Hard coal	7	3	-	-	-	-	-
Lignite and peat	1 193	1 087	1 062	1 008	1 175	1 184	0.7%
Crude oil	1	1	1	1	1	1	5.0%
Natural Gas	7	5	6	5	5	4	-9.5%
Nuclear heat	1 301	1 211	1 228	1 356	1 426	1 343	-5.8%
Hydro-electricity	297	322	330	326	293	271	-7.3%
Biomass	232	233	410	450	465	460	-1.1%
<b>Imports</b>							
Total	3 725	4 035	4 127	4 082	4 078	4 384	7.5%
<i>among which:</i> Hard coal	191	262	195	223	266	269	1.0%
Crude oil and feedstocks	240	295	156	121	107	109	2.1%
Petroleum products	2 385	2 544	2 499	2 579	2 523	2 550	1.1%
Natural Gas	812	849	863	845	815	902	10.7%
Electricity	61	51	364	271	326	514	57.5%
<b>Exports</b>							
Total	400	482	723	635	620	671	8.3%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	173	315	246	211	196	166	-14.9%
Natural gas	-	-	-	-	-	-	-
Electricity	226	166	477	424	424	500	17.9%
<b>Gross inland consumption</b>							
Total	6 404	6 330	6 454	6 781	6 907	6 948	0.6%
<i>among which:</i> Solid fuels	1 432	1 310	1 306	1 431	1 568	1 488	-5.1%
Crude oil and petrol. prod.	2 490	2 515	2 377	2 520	2 434	2 457	0.9%
Natural gas	819	854	869	850	820	907	10.6%
Nuclear Energy	1 301	1 211	1 228	1 356	1 426	1 343	-5.8%
Renewables	528	554	740	776	757	731	-3.5%
<b>Transformation input</b>							
Total	3 131	2 867	2 834	3 037	3 190	3 027	-5.1%
<i>among which:</i> Crude oil and feedstocks	257	298	174	116	124	110	-11.3%
Petroleum products	51	23	16	36	17	16	-5.7%
Hard coal	186	167	162	181	208	207	-0.4%
Lignite and peat	1 225	1 043	1 091	1 193	1 255	1 167	-7.0%
Renewables	11	11	14	25	33	36	8.7%
<b>Transformation output</b>							
Total	1 356	1 319	1 254	1 256	1 292	1 271	-1.6%
<i>among which:</i> Electricity	884	819	842	917	970	934	-3.7%
Heat	218	212	225	223	212	228	7.6%





in 1 000 toe

**SLOVENIJA**

**1998 1999 2000 2001 2002 2003 03/02**

**Final energy consumption**

Total	4 272	4 352	4 477	4 558	4 620	4 738	2.6%
<i>among which:</i> Solid fuels	65	88	97	86	103	86	-16.6%
Petroleum products	2 310	2 340	2 247	2 308	2 297	2 325	1.2%
Natural Gas	612	617	599	600	590	632	7.1%
Renewables	221	223	396	425	431	423	-1.8%
Electricity	868	891	905	941	1 013	1 077	6.3%

**Final energy consumption by sector**

**Industry**

Total	1 166	1 212	1 460	1 348	1 321	1 571	18.9%
<i>among which:</i> Solid fuels	46	69	86	85	97	82	-15.4%
Petroleum Products	137	183	285	213	165	263	59.2%
Natural Gas	503	474	512	498	488	499	2.2%
Renewables	21	19	36	64	70	97	38.8%
Electricity	432	440	475	489	501	567	13.1%


**Transport**

Total	1 377	1 311	1 313	1 372	1 390	1 336	-3.9%
<i>among which:</i> Motor spirit	840	813	849	840	807	783	-3.0%
Diesel oil	506	463	417	484	541	511	-5.4%
Jet fuel	17	21	24	27	28	27	-3.7%
Electricity	14	14	23	22	15	15	4.1%


**Services&households**

Total	1 729	1 830	1 704	1 837	1 908	1 831	-4.1%
<i>among which:</i> Solid fuels	19	19	11	1	6	4	-34.8%
Gas oil	726	763	578	642	654	674	3.1%
Natural Gas	109	142	87	102	102	133	30.6%
Renewables	199	204	360	361	361	326	-9.7%
Electricity	421	437	406	430	497	495	-0.5%
Heat	171	168	169	197	185	131	-28.9%


### 3.1 Electricity balance

 eurostat	SLOVENIJA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	13 728	13 262	13 624	14 466	14 690	14 019	-4.6%
<i>among which:</i>							
Hydro	3 449	3 741	3 834	3 796	3 404	3 156	-7.3%
Wind	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Nuclear	5 042	4 696	4 761	5 257	5 528	5 207	-5.8%
Conventional thermal	5 237	4 825	5 029	5 413	5 758	5 656	-1.8%
<i>of which:</i>							
Hard coal	1 199	1 019	307	352	494	508	2.8%
Lignite and peat	3 789	3 461	4 304	4 567	4 808	4 600	-4.3%
Petroleum products	140	142	55	126	66	50	-24.2%
Natural gas	109	172	293	296	288	370	28.5%
Derived gases	-	-	-	-	-	-	-
Biomass	-	31	29	69	102	121	18.6%
Industrial wastes	-	-	41	3	-	7	-
Total net generation	12 891	12 457	12 795	13 591	13 783	13 092	-5.0%
<b>Imports and exports</b>							
Total imports	711	596	4 232	3 154	3 794	5 975	57.5%
Total exports	2 630	1 934	5 553	4 926	4 928	5 811	17.9%
<b>Consumption and losses</b>							
Consumption of the energy branch	957	894	971	1 023	1 040	1 083	4.1%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	762	669	811	729	735	579	-21.2%
Final energy consumption	10 090	10 361	10 521	10 942	11 781	12 521	6.3%
<i>of which:</i>							
Industry	5 029	5 121	5 529	5 685	5 827	6 589	13.1%
<i>among which:</i>							
Iron&steel industry	771	778	873	929	860	644	-25.1%
Non-ferrous metals	1 155	1 158	1 186	1 182	1 494	1 758	17.7%
Chemical industry	417	405	418	430	479	897	87.3%
Non-met. mineral prod.	443	448	445	457	412	470	14.1%
Food, drink, tobacco	239	252	258	264	254	300	18.1%
Pulp, paper and print	535	557	670	679	669	684	2.2%
Engineering & metal	703	735	777	775	764	889	16.4%
Other industries	459	482	579	629	603	626	3.8%
Transport	160	160	265	255	172	179	4.1%
Services & households etc.	4 901	5 080	4 727	5 002	5 782	5 753	-0.5%
<i>among which:</i>							
Households	2 690	2 386	2 601	2 675	2 704	3 008	11.2%

## 3.2 Electrical capacity, fuel inputs and heat


	SLOVENIJA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	2 571	2 549	2 631	2 899	2 953	2 979	0.9%
<i>by source:</i>								
Conventional thermal		1 097	1 097	1 115	1 337	1 338	1 340	0.1%
<i>of which:</i>								
Steam		1 003	1 003	1 085	1 003	1 027	1 001	-2.5%
Gas turbine		10	10	17	319	298	319	7.0%
Combined cycle		-	-	-	-	-	-	-
Internal combustion		-	-	-	-	-	-	-
Nuclear		664	664	656	656	656	656	0.0%
Hydro		810	788	860	906	959	983	2.5%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		2 460	2 465	2 428	2 691	2 757	2 784	1.0%
Autoproducers		111	111	186	208	196	195	-0.5%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	1 512	1 301	1 345	1 486	1 561	1 488	-4.6%
<i>among which:</i>								
Hard coal		186	167	162	181	208	207	-0.4%
Lignite and peat		1 225	1 043	1 091	1 193	1 255	1 167	-7.0%
Petroleum products		49	20	12	32	14	11	-21.5%
Natural gas		50	63	65	64	59	75	26.7%
Renewables		2	8	6	16	25	27	9.2%
Heating plants		61	57	87	79	79	86	8.5%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		2	3	4	4	3	5	64.9%
Natural gas		50	51	75	67	68	72	6.3%
Renewables		9	3	8	8	8	9	7.3%
<b>Heat production and consumption</b>								
Total heat production	TJ	218	212	225	223	212	228	7.6%
<i>among which: in heating plants</i>								
		49	50	71	71	65	72	11.1%
Heat consumption		196	194	195	197	185	189	2.4%
<i>of which: in industry</i>								
		26	26	26	-	-	58	-
<i>in households and services</i>								
		171	168	169	197	185	131	-28.9%
<i>among which: in households</i>								
		117	157	94	104	97	100	3.1%

## 4.1 Crude oil and feedstocks


 eurostat	SLOVENIJA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		1	1	1	1	1	1	0.0%
Total imports		239	291	154	160	148	146	-1.4%
Total exports		-	-	-	-	-	-	-
Stock changes		16	-3	17	-18	16	-5	-131.3%
Refinery intake		256	294	172	155	165	147	-10.9%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/yea	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


eurostat	SLOVENIJA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	253	284	184	154	143	146	2.1%	
<i>among which:</i>								
Motor spirit	14	42	35	-	-	-	-	
Kerosene and jet fuel	1	1	-	-	-	-	-	
Naphtha	53	68	34	-	-	-	-	
Gas/diesel oil	95	99	56	-	-	-	-	
Residual fuel oil	78	65	42	-	-	-	-	
Total imports	2 338	2 504	2 448	2 528	2 471	2 504	1.3%	
Total exports	168	307	239	224	218	191	-12.4%	
Bunkers	-	-	-	-	-	-	-	
Stock changes	20	-8	-49	46	-17	-31	-82.4%	
Gross inland consumption	2 190	2 189	2 160	2 350	2 236	2 282	2.1%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	-	-	-	-	-	-	-	
United Kingdom	-	-	-	-	-	-	-	
Norway	-	-	-	-	-	-	-	
OPEC	-	-	-	-	-	-	-	
Imports by product								
<i>among which:</i>								
Motor spirit	841	782	868	807	779	783	0.5%	
Kerosene and jet fuel	20	20	23	30	35	30	-14.3%	
Gas/diesel oil	1 193	1 372	1 257	1 369	1 377	1 394	1.2%	
Residual fuel oil	99	96	88	110	82	63	-23.2%	
Exports by product								
<i>among which:</i>								
Motor spirit	43	65	70	30	18	27	50.0%	
Kerosene and jet fuel	2	-	-	1	6	2	-66.7%	
Gas/diesel oil	62	163	129	120	87	55	-36.8%	
Residual fuel oil	1	1	3	1	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	51	21	12	32	14	11	-21.4%	
Inputs to heating plants	2	3	4	4	3	5	66.7%	
Non-energy use	112	119	134	205	113	123	8.8%	
Final energy consumption	2 253	2 291	2 189	2 250	2 249	2 284	1.6%	
Industry								
<i>among which by product:</i>								
Gas/diesel oil	36	42	162	120	80	133	66.3%	
Residual fuel oil	93	117	110	83	51	53	3.9%	

 eurostat	SLOVENIJA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	1	1	2	1	1	1	0.0%	
Non-ferrous metals	4	30	5	5	4	5	25.0%	
Chemical industry	10	7	7	6	5	11	120.0%	
Non-met. mineral prod.	30	38	57	55	22	49	122.7%	
Food, drink, tobacco	34	35	33	35	32	32	0.0%	
Pulp, paper and print	1	27	3	1	1	13	1200.0%	
Engineering & metal	20	20	29	21	16	43	168.8%	
Other industries	16	20	122	67	45	51	13.3%	
<b>Transport</b>	1 317	1 252	1 244	1 304	1 330	1 277	-4.0%	
<i>among which:</i>								
Motor spirit	799	774	808	799	768	745	-3.0%	
Jet fuel	17	20	23	26	27	26	-3.7%	
Diesel oil	501	458	413	479	535	506	-5.4%	
<b>Services &amp; households etc.</b>	796	846	658	732	744	729	-2.0%	
<i>among which:</i>								
Gas oil	719	755	572	635	647	667	3.1%	
Residual fuel oil	13	15	7	19	21	-	-	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	11	3	-	-	2	7	250.0%	
Petroleum products	156	95	143	100	116	147	26.7%	

## 5. Natural gas


 eurostat	SLOVENIJA							
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		319	227	270	244	220	199	-9.5%
Total imports		37 797	39 489	40 133	39 301	37 914	41 982	10.7%
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Gross inland consumption		38 116	39 716	40 403	39 545	38 134	42 181	10.6%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		2 325	2 928	3 047	2 979	2 751	3 486	26.7%
Inputs to heat plants		2 329	2 358	3 486	3 106	3 169	3 368	6.3%
Consumption of energy branch		16	19	270	257	214	197	-7.9%
Distribution losses		-	-	-	-	-	-	-
Non-energy use		4 890	5 719	5 747	5 297	4 540	5 729	26.2%
Industry		23 418	22 065	23 815	23 166	22 723	23 212	2.2%
<i>among which:</i>								
Iron&steel industry		3 072	2 930	3 318	3 149	3 086	3 067	-0.6%
Non-ferrous metals		489	541	656	665	691	790	14.3%
Chemical industry		4 052	2 966	2 979	2 818	2 781	2 813	1.2%
Non-met. mineral prod.		4 904	4 712	4 807	4 548	4 352	3 935	-9.6%
Food, drink, tobacco		1 559	1 607	1 750	1 637	1 677	2 445	45.8%
Pulp, paper and print		3 529	3 617	4 367	4 519	4 185	4 422	5.7%
Engineering & metal		2 442	2 180	2 299	2 144	2 403	2 515	4.7%
Other industries		1 718	1 521	1 660	1 723	1 914	1 580	-17.5%
Transport		-	-	-	-	-	-	-
Services & households etc.		5 069	6 627	4 038	4 740	4 736	6 186	30.6%
<i>among which:</i>								
Households		2 318	3 149	2 870	2 876	3 181	4 013	26.2%
Services		2 751	3 478	1 168	1 864	1 555	2 173	39.7%

## 6.1 Hard coal


 eurostat	SLOVENIJA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	16	6	-	-	-	-	-	-
Total imports	437	596	448	447	572	568	-0.7%	
Total exports	1	1	-	-	-	11	-	
Stock changes	25	-124	-2	38	-	42	-	
Gross inland consumption	477	477	446	485	572	599	4.7%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants	437	381	362	402	463	477	3.0%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	3	0	-	-	-	-	-	
Industry								
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	-
Non-ferrous metals	2	1	-	-	-	-	-	-
Chemical industry	-	-	-	-	11	-	-	-
Non-met. mineral prod.	11	10	-	-	22	41	86.4%	
Food, drink, tobacco	-	0	-	-	-	-	-	
Pulp, paper and print	-	62	64	65	69	65	-5.8%	
Engineering & metal	-	0	3	5	-	-	-	
Other industries	-	0	7	11	2	2	0.0%	
Services & households etc.	23	22	8	2	3	1	-66.7%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	-




## 6.2 Coal derivates and peat

	SLOVENIJA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	4 875	4 556	4 480	4 133	4 686	4 830	3.1%
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	49	47	72	60	53	34	-35.8%
<i>among which:</i>							
Iron & steel industry	28	25	38	4	5	6	20.0%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	44	46	37	8	22	15	-31.8%
<i>among which:</i>							
Industry	6	5	7	6	2	-	-
Services & households	38	41	30	2	20	15	-25.0%
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-


## 7. Renewable energy sources

		SLOVENIJA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	528	554	740	776	757	731	-3.5%
Hydro (excl. pumping)		297	322	330	326	293	271	-7.3%
Wind		-	-	-	-	-	-	-
Solar		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Biomass		232	233	410	450	465	460	-1.1%
	<i>among which:</i>							
Wood, wood-waste		230	229	407	446	460	454	-1.3%
Municipal solid waste		-	-	-	-	-	-	-
Biogas		2	4	4	4	5	6	14.3%
Gross inland consumption		528	554	740	776	757	731	-3.5%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		11	11	14	25	33	36	8.7%
	<i>among which:</i>							
Wood, wood-waste		9	8	11	21	30	32	7.0%
Municipal waste		-	-	-	-	-	-	-
Biogas		2	3	3	3	4	5	22.2%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	221	223	396	425	431	423	-1.8%
	<i>by sector:</i>							
Industry		21	19	36	64	70	97	38.8%
Services & households etc.		199	204	360	361	361	326	-9.7%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		221	223	396	425	431	423	-1.8%
	<i>among which:</i>							
Wood, wood-waste		221	222	395	424	430	422	-1.8%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	1	1	1	1	1	-9.6%
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		:	:	169	197	256	339	32.4%
Hydro with installed capacity > 1 & <10 MW		:	:	172	174	161	127	-21.1%
Hydro with installed capacity > 10 MW		:	:	3 495	3 425	2 986	2 690	-9.9%
Wood, Wood-waste		:	19	18	54	84	98	16.7%
Municipal waste		-	-	-	-	-	-	-
Biogas		:	12	12	15	18	23	27.8%

	SLOVENIJA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	:	12	95	107	116	115	-0.9%
Hydro with installed capacity > 1 & <10 MW	:	28	32	40	40	36	-10.0%
Hydro with installed capacity > 10 MW	:	748	733	759	803	831	3.5%
Wood, Wood-waste	-	2	2	15	15	13	-13.3%
Municipal waste	-	-	-	-	-	-	-
Biogas	-	2	2	3	3	3	0.0%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		SLOVENSKO					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	4 701	5 093	5 966	6 357	6 477	6 287
Net energy imports		12 121	11 411	11 139	11 682	12 114	12 200
Net oil imports		3 148	2 764	2 234	2 885	3 311	3 240
Net gas imports		5 356	5 244	5 707	5 666	5 871	5 501
Gross inland energy consumption		17 124	17 007	16 988	18 735	18 833	18 894
Final energy consumption		9 991	9 739	9 499	10 883	11 092	10 776
Industry		3 243	3 363	4 207	4 284	4 270	4 946
Transport		1 594	1 602	1 549	1 409	1 791	1 710
Services and households etc.		5 154	4 775	3 743	5 190	5 031	4 120
Gross electricity generation	GWh	25 465	27 743	30 685	32 046	32 427	31 176
Final electricity consumption		21 020	22 747	22 010	23 452	22 712	22 952
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	17 165	17 417	17 772	18 445	19 296	20 157
Population	1000 per.	5 388	5 393	5 399	5 379	5 379	5 379
Industry added value	Mio EUR	5 467	5 443	5 442	5 546	5 533	6 020
Total imports (current prices)	Mio EUR	13 180	12 302	13 597	15 098	15 923	18 081
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	997.6	976.4	955.9	1 015.8	976.0	937.3
Final energy consumption / GDP(95)		582.1	559.2	534.5	590.1	574.9	534.6
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		593.2	617.8	773.1	772.4	771.7	821.6
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		276.4	229.3	136.2	176.2	172.5	96.8
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 178	3 153	3 147	3 483	3 501	3 512
Final energy consumption / capita		1 854	1 806	1 760	2 023	2 062	2 003
Household consumption / capita		458	465	429	569	549	514
Electricity consumption / capita	kWh/cap.	4 297	4 284	4 263	4 323	4 236	4 694
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	70.8	67.1	65.6	62.4	64.3	64.6
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	58.3	57.3	55.9	58.1	58.9	57.0
Efficiency of thermal power stations		79.9	73.4	41.1	52.9	56.5	52.6

## 2. Energy balance

### Principal aggregates by product

 eurostat	SLOVENSKO						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	4 701	5 093	5 966	6 357	6 477	6 287	-2.9%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	1 064	1 022	1 018	980	934	819	-12.3%
Crude oil	55	61	54	55	53	49	-7.5%
Natural Gas	200	164	133	151	145	180	23.9%
Nuclear heat	2 939	3 384	4 255	4 412	4 631	4 608	-0.5%
Hydro-electricity	370	390	406	424	453	299	-33.9%
Biomass	74	73	100	328	260	331	27.1%
<b>Imports</b>							
Total	14 762	14 626	14 820	15 925	16 420	16 524	0.6%
<i>among which:</i> Hard coal	2 890	2 909	3 153	3 246	3 064	3 258	6.3%
Crude oil and feedstocks	4 955	4 945	4 857	5 572	5 695	5 741	0.8%
Petroleum products	547	594	274	552	878	810	-7.7%
Natural Gas	5 356	5 244	5 707	5 666	5 871	5 505	-6.2%
Electricity	459	434	512	521	577	741	28.5%
<b>Exports</b>							
Total	2 640	3 215	3 681	4 244	4 306	4 324	0.4%
<i>among which:</i> Crude oil and feedstocks	-	-	14	17	14	17	21.7%
Petroleum products	2 354	2 775	2 883	3 222	3 248	3 294	1.4%
Natural gas	-	-	-	-	-	3	-
Electricity	266	422	744	838	934	935	0.1%
<b>Gross inland consumption</b>							
Total	17 124	17 007	16 988	18 735	18 833	18 894	0.3%
<i>among which:</i> Solid fuels	4 696	4 563	4 254	4 421	4 254	4 576	7.6%
Crude oil and petrol. prod.	3 183	2 849	2 437	3 257	3 674	3 577	-2.7%
Natural gas	5 670	5 738	5 776	6 168	5 867	5 682	-3.2%
Nuclear Energy	2 939	3 384	4 255	4 412	4 631	4 608	-0.5%
Renewables	442	461	498	758	716	626	-12.6%
<b>Transformation input</b>							
Total	14 150	14 783	15 392	16 474	16 225	16 818	3.7%
<i>among which:</i> Crude oil and feedstocks	4 982	5 022	4 960	6 405	6 394	6 409	0.2%
Petroleum products	447	250	107	89	89	120	35.5%
Hard coal	2 460	2 602	2 627	2 499	2 429	2 616	7.7%
Lignite and peat	1 216	1 101	1 002	920	675	992	46.9%
Renewables	-	-	-	46	47	59	27.0%
<b>Transformation output</b>							
Total	10 621	10 648	11 168	11 959	11 854	12 120	2.2%
<i>among which:</i> Electricity	1 797	1 975	2 211	2 315	2 317	2 365	2.1%
Heat	923	743	720	1 398	1 221	1 326	8.6%

**Final energy consumption**

Total	9 991	9 739	9 499	10 883	11 092	10 776	-2.9%
<i>among which:</i> Solid fuels	1 332	1 209	1 152	1 321	1 495	1 393	-6.9%
Petroleum products	1 847	1 818	1 872	2 078	2 342	2 231	-4.8%
Natural Gas	3 862	3 788	3 700	3 770	3 657	3 443	-5.9%
Renewables	6	3	1	250	212	265	24.7%
Electricity	1 807	1 956	1 893	2 017	1 953	1 974	1.1%

**Final energy consumption by sector**
**Industry**

Total	3 243	3 363	4 207	4 284	4 270	4 946	15.8%
<i>among which:</i> Solid fuels	870	876	916	1 072	1 098	1 273	15.9%
Petroleum Products	250	230	362	498	465	456	-1.8%
Natural Gas	902	1 022	1 743	1 243	1 287	1 379	7.2%
Renewables	0	0	0	229	209	262	25.2%
Electricity	812	819	838	832	775	976	25.8%


**Transport**

Total	1 594	1 602	1 549	1 409	1 791	1 710	-4.5%
<i>among which:</i> Motor spirit	643	670	633	640	752	731	-2.8%
Diesel oil	864	854	834	735	928	882	-5.0%
Jet fuel	-	-	-	32	48	34	-29.8%
Electricity	87	78	83	3	62	62	0.8%


**Services&households**

Total	5 154	4 775	3 743	5 190	5 031	4 120	-18.1%
<i>among which:</i> Solid fuels	463	333	236	248	397	119	-70.0%
Gas oil	-	-	-	121	84	74	-12.0%
Natural Gas	2 959	2 767	1 958	2 527	2 370	2 064	-12.9%
Renewables	5	2	1	21	3	3	-5.7%
Electricity	909	1 059	972	1 182	1 115	936	-16.1%
Heat	728	549	532	1 037	995	871	-12.5%

### 3.1 Electricity balance


 eurostat	SLOVENSKO							
	in GWh	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>								
Total gross generation	25 465	27 743	30 685	32 046	32 427	31 176	-3.9%	
<i>among which:</i>								
Hydro	4 566	4 776	4 975	5 117	5 483	3 672	-33.0%	
Wind	-	-	-	-	-	-	-	
Geothermal	-	-	-	-	-	-	-	
Nuclear	11 394	13 117	16 494	17 103	17 953	17 864	-0.5%	
Conventional thermal	9 505	9 850	9 216	9 826	8 991	9 640	7.2%	
<i>of which:</i>								
Hard coal	3 013	3 657	3 369	3 184	3 141	3 553	13.1%	
Lignite and peat	2 848	2 716	2 215	2 638	2 014	2 413	19.8%	
Petroleum products	1 231	338	202	690	704	708	0.6%	
Natural gas	2 363	3 085	3 376	2 699	2 512	2 396	-4.6%	
Derived gases	50	54	54	402	420	429	2.1%	
Biomass	-	-	-	-	-	-	-	
Industrial wastes	-	-	-	213	200	141	-29.5%	
Total net generation	22 502	24 816	27 323	29 609	29 980	28 713	-4.2%	
<b>Imports and exports</b>								
Total imports	5 342	5 050	5 951	6 065	6 710	8 623	28.5%	
Total exports	3 091	4 912	8 647	9 743	10 867	10 878	0.1%	
<b>Consumption and losses</b>								
Consumption of the energy branch	4 392	3 064	3 903	3 400	4 235	3 840	-9.3%	
<i>of which:</i>								
Consumption for pumped-storage	42	54	50	72	63	70	11.1%	
Network losses	2 039	1 828	1 827	1 326	1 108	1 939	75.0%	
Final energy consumption	21 020	22 747	22 010	23 452	22 712	22 952	1.1%	
<i>of which:</i>								
Industry	9 441	9 525	9 741	9 680	9 019	11 346	25.8%	
<i>among which:</i>								
Iron&steel industry	3 149	3 177	3 251	2 461	1 541	2 415	56.7%	
Non-ferrous metals	-	-	-	1 665	1 683	2 022	20.1%	
Chemical industry	1 401	1 413	1 446	1 057	1 415	1 460	3.2%	
Non-met. mineral prod.	983	992	1 015	695	855	1 013	18.5%	
Food, drink, tobacco	1 085	1 095	1 121	967	1 080	529	-51.0%	
Pulp, paper and print	661	667	683	732	801	911	13.7%	
Engineering & metal	1 053	1 062	1 087	1 196	650	919	41.4%	
Other industries	665	671	680	627	686	923	34.5%	
Transport	1 012	903	965	30	720	726	0.8%	
Services & households etc.	10 567	12 319	11 304	13 742	12 973	10 880	-16.1%	
<i>among which:</i>								
Households	5 619	5 672	5 419	5 222	4 907	5 039	2.7%	

## 3.2 Electrical capacity, fuel inputs and heat


		SLOVENSKO						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	7 777	7 752	7 454	8 320	8 074	8 302	2.8%
<i>by source:</i>								
Conventional thermal		3 160	3 133	2 394	3 178	2 929	3 152	7.6%
<i>of which:</i>								
Steam		-	-	-	-	-	-	-
Gas turbine		-	-	-	-	-	-	-
Combined cycle		-	-	-	-	-	-	-
Internal combustion		-	-	-	-	-	-	-
Nuclear		2 200	2 200	2 640	2 640	2 640	2 640	0.0%
Hydro		2 417	2 419	2 420	2 502	2 505	2 507	0.1%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		-	-	-	-	-	3	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		7 777	7 752	7 454	7 611	7 460	7 620	2.1%
Autoproducers		-	-	-	722	624	692	10.9%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	2 126	2 127	1 930	2 991	2 426	2 856	17.7%
<i>among which:</i>								
Hard coal		801	794	726	973	805	920	14.3%
Lignite and peat		734	702	622	908	668	971	45.4%
Petroleum products		219	86	37	86	85	114	33.7%
Natural gas		309	478	475	941	781	743	-4.8%
Renewables		-	-	-	28	25	47	87.0%
Heating plants		2 421	2 401	2 331	656	633	670	5.9%
<i>among which:</i>								
Hard coal		345	335	347	1	-	3	-
Lignite and peat		482	399	380	13	7	21	185.2%
Petroleum products		228	164	70	3	4	7	75.0%
Natural gas		1 215	1 289	1 317	615	576	622	7.9%
Renewables		-	-	-	19	22	12	-43.4%
<b>Heat production and consumption</b>								
Total heat production	TJ	923	743	720	1 398	1 221	1 326	8.6%
<i>among which: in heating plants</i>								
		43	29	720	609	579	604	4.5%
Heat consumption		747	567	550	1 057	1 021	1 026	0.5%
<i>of which: in industry</i>								
		19	18	18	21	25	155	515.0%
<i>in households and services</i>								
		728	549	532	1 037	995	871	-12.5%
<i>among which: in households</i>								
		383	370	358	868	782	634	-18.9%



## 4.1 Crude oil and feedstocks


 eurostat	SLOVENSKO							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		60	66	59	54	52	48	-7.7%
Total imports		5 421	5 346	5 329	5 495	5 633	5 666	0.6%
Total exports		-	-	15	17	14	17	21.4%
Stock changes		-31	41	69	59	32	35	9.4%
Refinery intake		5 450	5 429	5 442	6 316	6 322	6 324	0.0%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	SLOVENSKO						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	6 614	6 466	6 679	6 233	6 196	6 156	-0.6%
among which:							
Motor spirit	912	1 017	1 377	1 440	1 555	1 597	2.7%
Kerosene and jet fuel	84	41	47	50	44	64	45.5%
Naphtha	825	721	751	560	530	515	-2.8%
Gas/diesel oil	1 898	1 889	2 125	2 406	2 341	2 351	0.4%
Residual fuel oil	1 217	1 170	543	719	675	635	-5.9%
Total imports	542	580	270	552	884	820	-7.2%
Total exports	2 353	2 766	2 858	3 210	3 230	3 278	1.5%
Bunkers	-	-	-	-	-	-	-
Stock changes	11	-23	90	-41	2	-5	-350.0%
Gross inland consumption	-1 800	-2 209	-2 498	-2 699	-2 344	-2 463	-5.1%
<b>Imports and exports</b>							
Imports by origin							
among which:							
Netherlands	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-
Imports by product							
among which:							
Motor spirit	208	255	98	221	324	246	-24.1%
Kerosene and jet fuel	-	-	-	3	16	22	37.5%
Gas/diesel oil	137	233	99	118	285	233	-18.2%
Residual fuel oil	182	71	36	30	16	64	300.0%
Exports by product							
among which:							
Motor spirit	403	626	869	1 025	1 151	1 130	-1.8%
Kerosene and jet fuel	50	21	13	6	11	32	190.9%
Gas/diesel oil	1 129	1 286	1 422	1 569	1 567	1 587	1.3%
Residual fuel oil	756	822	450	363	260	274	5.4%
<b>Consumption</b>							
Inputs to electricity plants	229	90	39	90	89	119	33.7%
Inputs to heating plants	239	172	73	3	4	7	75.0%
Non-energy use	1 238	1 207	1 238	746	678	521	-23.2%
Final energy consumption	1 793	1 764	1 883	2 056	2 321	2 229	-4.0%
Industry							
among which <i>by product</i> :							
Gas/diesel oil	-	-	-	24	27	28	3.7%
Residual fuel oil	142	137	88	305	336	233	-30.7%

eurostat	SLOVENSKO							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		-	-	-	-	-	-	-
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		92	81	85	381	378	261	-31.0%
Non-met. mineral prod.		-	-	-	13	2	24	1100.0%
Food, drink, tobacco		-	-	-	4	-	3	-
Pulp, paper and print		-	-	-	14	6	8	33.3%
Engineering & metal		-	-	-	-	-	-	-
Other industries		142	137	88	47	46	4	-91.3%
<b>Transport</b>		1 467	1 483	1 427	1 367	1 682	1 602	-4.8%
<i>among which:</i>								
Motor spirit		612	638	602	609	716	696	-2.8%
Jet fuel		-	-	-	31	47	33	-29.8%
Diesel oil		855	845	825	727	919	873	-5.0%
<b>Services &amp; households etc.</b>		88	61	42	170	145	124	-14.5%
<i>among which:</i>								
Gas oil		-	-	-	120	83	73	-12.0%
Residual fuel oil		30	11	6	-	-	-	-
<b>Stocks at end of period</b>								
Crude oil and feedstocks		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-


## 5. Natural gas

 eurostat	SLOVENSKO								
	in TJ (GCV)		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		9 299	7 619	6 182	7 009	6 754	8 368	23.9%	
Total imports		249 140	243 945	265 484	263 569	273 122	256 076	-6.2%	
Total exports		-	-	-	-	-	151	-	
Stock changes		5 308	15 375	-2 947	16 374	-6 927	38	100.5%	
Gross inland consumption		263 747	266 939	268 719	286 952	272 949	264 331	-3.2%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		-	-	-	-	-	-	-	
Algeria		-	-	-	-	-	-	-	
Norway		-	-	-	-	-	-	-	
<b>Consumption</b>									
Inputs to electricity plants		14 384	22 257	22 114	43 789	36 324	34 569	-4.8%	
Inputs to heat plants		56 519	59 986	61 276	28 619	26 807	28 934	7.9%	
Consumption of energy branch		5 705	5 488	5 633	31 720	29 832	30 205	1.3%	
Distribution losses		5 370	270	3 045	940	3 736	5 384	44.1%	
Non-energy use		-	-	-	1 029	877	140	-84.0%	
Industry		41 965	47 521	81 068	57 836	59 871	64 169	7.2%	
<i>among which:</i>									
Iron&steel industry		-	-	-	6 041	9 133	7 155	-21.7%	
Non-ferrous metals		-	-	-	905	1 211	1 298	7.2%	
Chemical industry		-	-	-	10 166	9 026	19 040	110.9%	
Non-met. mineral prod.		-	-	-	13 107	12 633	9 641	-23.7%	
Food, drink, tobacco		-	-	-	4 913	9 010	6 516	-27.7%	
Pulp, paper and print		-	-	-	3 372	2 976	2 064	-30.6%	
Engineering & metal		-	-	-	5 281	7 335	10 574	44.2%	
Other industries		41 965	47 521	81 068	9 372	4 539	4 081	-10.1%	
Transport		-	-	-	-	-	-	-	
Services & households etc.		137 672	128 715	91 079	117 567	110 265	95 998	-12.9%	
<i>among which:</i>									
Households		67 521	72 596	66 396	77 075	74 580	74 864	0.4%	
Services		67 452	53 963	22 455	32 574	33 608	17 511	-47.9%	


## 6.1 Hard coal


 eurostat	SLOVENSKO							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	4 531	4 488	4 851	4 963	4 629	4 945	6.8%	
Total exports	-	-	-	-	-	-	-	
Stock changes	226	119	-195	-41	97	145	49.5%	
Gross inland consumption	4 757	4 607	4 656	4 922	4 726	5 090	7.7%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	
Poland	-	-	-	-	-	-	-	
CIS	-	-	-	-	-	-	-	
Australia	-	-	-	-	-	-	-	
South Africa	-	-	-	-	-	-	-	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	1 314	1 326	1 225	1 421	1 345	1 540	14.5%	
Inputs to heat plants	565	559	585	1	-	5	-	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	238	224	218	644	607	716	18.0%	
<i>among which:</i>								
Iron&steel industry	238	224	218	377	394	449	14.0%	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	-	-	-	-	-	-	-	
Non-met. mineral prod.	-	-	-	197	129	185	43.4%	
Food, drink, tobacco	-	-	-	-	-	-	-	
Pulp, paper and print	-	-	-	61	59	61	3.4%	
Engineering & metal	-	-	3	2	-	4	-	
Other industries	-	-	-	-	-	-	-	
Services & households etc.	356	61	28	156	88	-	-	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	SLOVENSKO						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	1 515	1 616	1 706	1 697	1 806	1 886	4.4%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	3 951	3 748	3 648	3 424	3 404	3 097	-9.0%
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	10 659	11 435	12 164	13 458	14 346	15 025	4.7%
Blast-furnace gas	14 565	16 299	17 123	20 555	22 028	24 632	11.8%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	1 134	1 166	1 198	915	1 013	1 203	18.8%
<i>among which:</i>							
Iron & steel industry	1 078	1 087	1 115	739	864	1 112	28.7%
Services & households	55	79	83	79	49	59	20.4%
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	786	891	636	721	1 368	546	-60.1%
<i>among which:</i>							
Industry	85	25	68	424	266	248	-6.8%
Services & households	701	866	568	297	1 102	298	-73.0%
Brown coal briquettes	1	2	4	3	1	1	0.0%
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	1	2	4	3	1	1	0.0%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	5 987	6 097	6 392	9 706	10 262	10 592	3.2%
Blast-furnace gas	7 254	6 927	7 262	6 579	7 351	8 516	15.8%
Gasworks gas	4 135	4 728	957	-	-	-	-
Inputs to electricity plants	2 756	2 938	3 106	2 254	2 399	2 601	8.4%
Inputs to heat plants	6 596	9 337	9 635	108	95	33	-65.3%
Consumption of energy branch	8 917	10 866	14 554	14 459	15 071	16 364	8.6%
Consumption in industry	17 369	17 751	14 599	16 285	17 613	19 108	8.5%

## 7. Renewable energy sources


		SLOVENSKO						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	444	463	506	760	715	632	-11.7%
Hydro (excl. pumping)		370	390	406	424	453	299	-33.9%
Wind		-	-	-	-	-	-	-
Solar		-	-	-	-	-	-	-
Geothermal		-	-	-	9	2	1	-23.2%
Biomass		74	73	100	328	260	331	27.1%
<i>among which:</i>								
Wood, wood-waste		74	73	100	267	251	300	19.7%
Municipal solid waste		-	-	-	25	4	26	520.8%
Biogas		-	-	-	5	3	4	15.4%
Gross inland consumption		442	461	498	758	716	626	-12.6%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		-	-	-	46	47	59	27.0%
<i>among which:</i>								
Wood, wood-waste		-	-	-	32	42	32	-24.2%
Municipal waste		:	:	:	14	4	26	520.8%
Biogas		-	-	-	0	1	2	290.5%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	6	3	1	251	214	266	24.3%
<i>by sector:</i>								
Industry		0	0	0	229	209	262	25.2%
Services & households etc.		5	2	1	22	5	4	-11.4%
Transport		-	-	-	-	-	-	-
<i>by source:</i>								
Biomass		6	3	1	250	212	265	24.7%
<i>among which:</i>								
Wood, wood-waste		6	3	1	235	210	263	25.3%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	5	3	2	-28.6%
Geothermal		-	-	-	1	2	1	-23.2%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		:	:	:	15	16	13	-18.8%
Hydro with installed capacity > 1 & <10 MW		:	:	:	11	13	15	15.4%
Hydro with installed capacity > 10 MW		:	:	:	4 901	5 239	3 451	-34.1%
Wood, Wood-waste		:	:	:	153	153	84	-45.1%
Municipal waste		-	-	-	-	-	-	-
Biogas		:	:	:	1	2	2	0.0%

		SLOVENSKO						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		:	:	:	5	4	5	25.0%
Hydro with installed capacity > 1 & <10 MW		:	:	:	3	3	5	66.7%
Hydro with installed capacity > 10 MW		:	:	:	1 578	1 579	2 497	58.1%
Wood, Wood-waste		-	-	-	5	1	1	0.0%
Municipal waste		-	-	-	-	-	6	-
Biogas		-	-	-	1	2	1	-50.0%
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	38	3	2	-33.3%
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	-	-	-	-	-	-	-




# 1. Energy economy

## Key figures and energy indicators

		SUOMI/FINLAND					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	13 125	15 153	14 809	15 065	15 666	15 570
Net energy imports		18 325	17 217	18 542	18 905	18 805	22 341
Net oil imports		11 037	10 292	10 566	10 137	10 139	11 217
Net gas imports		3 336	3 338	3 422	3 707	3 684	4 084
Gross inland energy consumption		33 229	32 807	32 508	33 315	35 136	37 101
Final energy consumption		24 188	24 637	24 543	24 739	25 541	25 676
Industry		11 476	12 055	12 144	11 627	12 118	12 244
Transport		4 296	4 398	4 391	4 482	4 548	4 631
Services and households etc.		8 416	8 184	8 008	8 630	8 875	8 801
Gross electricity generation	GWh	70 170	69 433	69 989	74 450	74 899	84 227
Final electricity consumption		72 806	74 200	75 446	77 296	79 681	80 843
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	115 005	118 883	124 969	126 300	129 077	132 172
Population	1000 per.	5 147	5 160	5 171	5 181	5 195	5 206
Industry added value	Mio EUR	35 286	36 773	40 116	40 070	40 948	41 349
Total imports (current prices)	Mio EUR	36 372	37 653	44 014	44 111	44 951	46 175
among which:							
All energy commodities		2 147	2 515	4 370	4 154	4 046	4 481
Oil products		1 350	1 873	3 532	3 008	2 978	3 145
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	288.9	276.0	260.1	263.8	272.2	280.7
Final energy consumption / GDP(95)		210.3	207.2	196.4	195.9	197.9	194.3
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		325.2	327.8	302.7	290.2	295.9	296.1
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		36.6	35.1	34.8	40.6	40.2	38.7
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	6 456	6 358	6 286	6 430	6 763	7 126
Final energy consumption / capita		4 699	4 775	4 746	4 775	4 917	4 932
Household consumption / capita		1 046	1 000	952	956	998	994
Electricity consumption / capita	kWh/cap.	12 512	13 127	12 981	13 730	14 627	15 250
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	54.3	51.6	55.9	55.8	52.6	59.2
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	72.8	75.1	75.5	74.3	72.7	69.2
Efficiency of thermal power stations		73.9	73.0	73.2	70.6	69.8	63.6

## 2. Energy balance

### Principal aggregates by product

 eurostat	SUOMI/FINLAND						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	13 125	15 153	14 809	15 065	15 666	15 570	-0.6%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	430	1 966	1 207	1 616	2 107	1 832	-13.0%
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	5 370	5 926	5 799	5 874	5 751	5 864	2.0%
Hydro-electricity	1 294	1 099	1 261	1 135	927	825	-11.0%
Biomass	5 960	6 158	6 536	6 433	6 876	7 041	2.4%
<b>Imports</b>							
Total	23 177	22 350	23 672	24 029	24 364	28 543	17.2%
<i>among which:</i> Hard coal	2 851	2 302	3 203	3 894	3 641	6 291	72.8%
Crude oil and feedstocks	12 269	11 700	12 146	11 377	12 153	12 427	2.3%
Petroleum products	3 580	3 692	3 507	3 711	3 405	4 384	28.7%
Natural Gas	3 336	3 338	3 422	3 707	3 684	4 084	10.9%
Electricity	824	976	1 050	1 012	1 158	1 022	-11.7%
<b>Exports</b>							
Total	4 852	5 133	5 130	5 123	5 559	6 202	11.6%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	4 812	5 100	5 087	4 951	5 419	5 594	3.2%
Natural gas	-	-	-	-	-	-	-
Electricity	24	20	28	156	132	604	356.8%
<b>Gross inland consumption</b>							
Total	33 229	32 807	32 508	33 315	35 136	37 101	5.6%
<i>among which:</i> Solid fuels	5 447	5 274	5 047	6 146	6 488	8 220	26.7%
Crude oil and petrol. prod.	10 856	9 920	9 209	8 943	10 164	10 358	1.9%
Natural gas	3 336	3 338	3 422	3 707	3 684	4 084	10.9%
Nuclear Energy	5 370	5 926	5 799	5 874	5 751	5 864	2.0%
Renewables	7 257	7 261	7 803	7 574	7 808	7 874	0.8%
<b>Transformation input</b>							
Total	27 840	28 315	28 083	28 661	30 504	33 636	10.3%
<i>among which:</i> Crude oil and feedstocks	13 729	13 499	13 231	12 414	13 590	13 501	-0.7%
Petroleum products	427	508	358	442	391	530	35.6%
Hard coal	3 039	3 035	3 033	3 523	3 955	5 383	36.1%
Lignite and peat	1 371	1 292	1 143	1 670	1 755	2 218	26.4%
Renewables	1 495	1 607	1 547	1 615	1 920	2 294	19.4%
<b>Transformation output</b>							
Total	22 309	22 362	22 065	21 933	23 631	25 037	6.0%
<i>among which:</i> Electricity	4 737	4 867	4 751	5 260	5 508	6 410	16.4%
Heat	2 764	3 000	2 990	3 268	3 457	4 043	17.0%

**Final energy consumption**

Total	24 188	24 637	24 543	24 739	25 541	25 676	0.5%
<i>among which:</i> Solid fuels	1 285	1 200	1 075	1 168	1 103	846	-23.3%
Petroleum products	7 693	7 783	7 822	7 669	8 042	8 153	1.4%
Natural Gas	1 487	1 463	952	1 007	973	749	-23.1%
Renewables	4 465	4 550	4 989	4 818	4 955	4 748	-4.2%
Electricity	6 260	6 380	6 487	6 646	6 851	6 951	1.5%

**Final energy consumption by sector**
**Industry**

Total	11 476	12 055	12 144	11 627	12 118	12 244	1.0%
<i>among which:</i> Solid fuels	1 258	1 174	1 050	1 142	1 077	820	-23.9%
Petroleum Products	1 138	1 352	1 464	1 074	1 347	1 598	18.6%
Natural Gas	1 427	1 398	889	938	899	676	-24.8%
Renewables	3 326	3 436	3 904	3 657	3 773	3 582	-5.1%
Electricity	3 506	3 570	3 669	3 644	3 755	3 809	1.4%


**Transport**

Total	4 296	4 398	4 391	4 482	4 548	4 631	1.8%
<i>among which:</i> Motor spirit	1 940	1 934	1 865	1 904	1 923	1 936	0.7%
Diesel oil	1 794	1 897	1 925	1 986	2 029	2 079	2.5%
Jet fuel	480	506	505	505	493	506	2.7%
Electricity	44	45	46	49	51	54	5.6%


**Services&households**

Total	8 416	8 184	8 008	8 630	8 875	8 801	-0.8%
<i>among which:</i> Solid fuels	27	26	25	26	25	26	4.6%
Gas oil	2 028	1 894	1 740	1 787	1 732	1 628	-6.0%
Natural Gas	60	65	62	67	72	70	-1.9%
Renewables	1 139	1 114	1 084	1 161	1 182	1 166	-1.4%
Electricity	2 710	2 765	2 772	2 953	3 045	3 089	1.4%
Heat	2 176	2 137	2 050	2 259	2 349	2 469	5.1%


### 3.1 Electricity balance

 eurostat	SUOMI/FINLAND							
	in GWh		1998	1999	2000	2001	2002	2003
<b>Generation</b>								
Total gross generation		70 170	69 433	69 989	74 450	74 899	84 227	12.5%
<i>among which:</i>								
Hydro		15 051	12 780	14 660	13 204	10 776	9 591	-11.0%
Wind		24	49	78	70	64	93	45.3%
Geothermal		-	-	-	-	-	-	-
Nuclear		21 853	22 974	22 479	22 773	22 295	22 731	2.0%
Conventional thermal		33 242	33 630	32 772	38 403	41 764	51 812	24.1%
<i>of which:</i>								
Hard coal		8 272	8 522	8 535	10 659	12 611	18 880	49.7%
Lignite and peat		5 442	4 871	3 962	6 210	6 448	7 320	13.5%
Petroleum products		1 567	773	610	652	601	934	55.4%
Natural gas		8 412	10 113	10 080	11 552	11 304	13 941	23.3%
Derived gases		655	655	704	643	670	566	-15.5%
Biomass		6 696	8 363	8 557	8 411	9 740	9 700	-0.4%
Industrial wastes		2 198	333	324	276	390	471	20.8%
Total net generation		67 325	66 655	67 292	71 230	71 617	80 377	12.2%
<b>Imports and exports</b>								
Total imports		9 582	11 356	12 206	11 769	13 464	11 882	-11.7%
Total exports		276	232	326	1 810	1 539	7 030	356.8%
<b>Consumption and losses</b>								
Consumption of the energy branch		3 705	3 668	3 671	4 086	4 202	4 789	14.0%
<i>of which:</i>								
Consumption for pumped-storage		-	-	-	-	-	-	-
Network losses		2 966	2 689	2 752	3 027	2 941	3 447	17.2%
Final energy consumption		72 806	74 200	75 446	77 296	79 681	80 843	1.5%
<i>of which:</i>								
Industry		40 773	41 520	42 674	42 384	43 668	44 296	1.4%
<i>among which:</i>								
Iron&steel industry		2 444	2 537	2 470	2 562	2 615	2 877	10.0%
Non-ferrous metals		1 936	2 033	1 957	2 029	2 072	2 279	10.0%
Chemical industry		4 318	4 385	5 019	5 143	5 369	5 376	0.1%
Non-met. mineral prod.		790	850	871	927	924	946	2.4%
Food, drink, tobacco		1 520	1 540	1 588	1 590	1 540	1 560	1.3%
Pulp, paper and print		24 410	24 640	25 205	24 239	24 958	25 129	0.7%
Engineering & metal		2 400	2 570	2 450	2 492	2 537	2 579	1.7%
Other industries		2 185	2 145	2 281	2 578	2 809	2 700	-3.9%
Transport		515	520	538	565	594	627	5.6%
Services & households etc.		31 518	32 160	32 234	34 347	35 419	35 920	1.4%
<i>among which:</i>								
Households		18 141	18 445	18 135	19 373	19 940	20 403	2.3%


## 3.2 Electrical capacity, fuel inputs and heat


		SUOMI/FINLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	16 143	16 164	16 258	16 474	16 566	16 614	0.3%
<i>by source:</i>								
Conventional thermal		10 605	10 605	10 698	10 868	10 888	10 925	0.3%
<i>of which:</i>								
Steam		6 578	6 635	7 215	7 385	7 405	7 442	0.5%
Gas turbine		1 700	1 700	1 847	1 847	1 847	1 847	0.0%
Combined cycle		-	-	1 586	1 586	1 586	1 586	0.0%
Internal combustion		-	-	50	50	50	50	0.0%
Nuclear		2 640	2 640	2 640	2 640	2 671	2 671	0.0%
Hydro		2 881	2 881	2 882	2 927	2 964	2 966	0.1%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		17	38	38	39	43	52	20.9%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		13 816	13 894	13 988	14 204	14 296	14 347	0.4%
Autoproducers		2 327	2 270	2 270	2 270	2 270	2 270	0.0%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	6 772	7 100	6 934	8 255	9 043	11 854	31.1%
<i>among which:</i>								
Hard coal		2 065	2 054	2 088	2 582	3 005	4 427	47.3%
Lignite and peat		1 294	1 249	1 081	1 611	1 692	2 125	25.6%
Petroleum products		236	508	131	132	127	226	78.1%
Natural gas		1 654	1 665	1 932	2 211	2 177	2 675	22.9%
Renewables		1 319	1 415	1 436	1 486	1 802	2 108	17.0%
Heating plants		655	478	792	834	806	1 102	36.7%
<i>among which:</i>								
Hard coal		57	74	46	37	32	59	85.7%
Lignite and peat		77	43	62	59	63	93	47.6%
Petroleum products		191	-	227	310	264	304	15.1%
Natural gas		145	161	239	183	212	319	50.4%
Renewables		176	192	111	129	119	186	56.7%
<b>Heat production and consumption</b>								
Total heat production	TJ	2 764	3 000	2 990	3 268	3 457	4 043	17.0%
<i>among which: in heating plants</i>		617	711	731	741	735	964	31.2%
Heat consumption		2 534	2 780	2 780	3 039	3 212	3 789	18.0%
<i>of which: in industry</i>		357	643	730	780	863	1 320	52.9%
<i>in households and services</i>		2 176	2 137	2 050	2 259	2 349	2 469	5.1%
<i>among which: in households</i>		1 340	1 323	1 276	1 382	1 433	1 493	4.2%

## 4.1 Crude oil and feedstocks

 eurostat	SUOMI/FINLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		11 931	11 378	11 834	11 095	11 896	12 167	2.3%
Total exports		-	-	-	-	-	-	-
Stock changes		134	-64	-329	-520	352	-77	-121.9%
Refinery intake		13 370	13 145	12 905	12 117	13 309	13 224	-0.6%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		46	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		3 185	2 764	2 587	1 804	1 799	1 066	-40.7%
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	12 800	12 500	12 500	:	:	:	
<i>among which:</i>								
Cracking and others		6 330	6 510	6 510	:	:	:	
Reforming		2 000	2 170	2 170	:	:	:	


## 4.2 Petroleum products

 eurostat	SUOMI/FINLAND						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	13 266	12 962	12 776	11 943	13 198	13 108	-0.7%
<i>among which:</i>							
Motor spirit	4 183	4 285	3 891	3 785	4 475	4 304	-3.8%
Kerosene and jet fuel	804	986	765	441	659	614	-6.8%
Naphtha	336	270	240	215	203	188	-7.4%
Gas/diesel oil	5 263	4 965	5 248	5 058	5 128	5 038	-1.8%
Residual fuel oil	1 297	1 292	1 407	1 306	1 403	1 267	-9.7%
Total imports	3 722	3 718	3 518	3 712	3 442	4 431	28.7%
Total exports	4 655	4 931	4 947	4 815	5 254	5 450	3.7%
Bunkers	529	567	682	584	658	654	-0.6%
Stock changes	105	216	-365	-104	260	-185	-171.2%
Gross inland consumption	-1 262	-1 564	-2 476	-1 791	-2 210	-1 858	15.9%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	89	62	115	145	121	119	-1.7%
United Kingdom	240	97	80	113	145	125	-13.8%
Norway	126	450	491	281	397	614	54.7%
OPEC	138	-	10	66	-	11	
Imports by product							
<i>among which:</i>							
Motor spirit	80	305	418	365	290	421	45.2%
Kerosene and jet fuel	747	474	235	182	47	15	-68.1%
Gas/diesel oil	1 102	1 232	1 476	1 670	1 682	2 082	23.8%
Residual fuel oil	953	978	674	654	806	983	22.0%
Exports by product							
<i>among which:</i>							
Motor spirit	2 248	2 505	2 221	2 200	2 751	2 561	-6.9%
Kerosene and jet fuel	284	492	294	123	174	79	-54.6%
Gas/diesel oil	1 722	1 577	1 947	2 054	1 933	2 243	16.0%
Residual fuel oil	-	-	123	79	28	23	-17.9%
<b>Consumption</b>							
Inputs to electricity plants	244	527	136	138	132	236	78.8%
Inputs to heating plants	200	-	236	323	275	316	14.9%
Non-energy use	1 442	948	921	1 019	863	947	9.7%
Final energy consumption	7 598	7 673	7 718	7 557	7 927	8 033	1.3%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	152	248	435	381	407	554	36.1%
Residual fuel oil	885	905	870	629	776	863	11.2%


 eurostat	SUOMI/FINLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		399	413	415	285	347	424	22.2%
Non-ferrous metals		26	25	17	13	7	17	142.9%
Chemical industry		127	280	84	40	146	138	-5.5%
Non-met. mineral prod.		98	98	76	61	87	91	4.6%
Food, drink, tobacco		125	127	61	47	55	61	10.9%
Pulp, paper and print		64	65	206	254	300	314	4.7%
Engineering & metal		94	89	86	27	35	35	0.0%
Other industries		139	205	520	342	351	502	43.0%
<b>Transport</b>		4 129	4 228	4 223	4 308	4 370	4 449	1.8%
<i>among which:</i>								
Motor spirit		1 846	1 840	1 775	1 812	1 830	1 842	0.7%
Jet fuel		467	493	492	492	480	493	2.7%
Diesel oil		1 776	1 878	1 905	1 966	2 008	2 058	2.5%
<b>Services &amp; households etc.</b>		2 293	2 063	1 999	2 154	2 187	1 961	-10.3%
<i>among which:</i>								
Gas oil		2 007	1 875	1 722	1 769	1 714	1 611	-6.0%
Residual fuel oil		268	166	203	335	350	218	-37.7%
<b>Stocks at end of period</b>								
Crude oil and feedstocks		1 094	858	1 035	1 415	1 063	1 140	7.2%
Petroleum products		2 163	1 284	2 293	2 368	2 119	2 304	8.7%




## 5. Natural gas

 eurostat	SUOMI/FINLAND								
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		-	-	-	-	-	-	-	-
Total imports		155 171	155 283	159 201	172 446	171 371	190 004	10.9%	
Total exports		-	-	-	-	-	-	-	
Stock changes		-	-	-	-	-	-	-	
Gross inland consumption		155 171	155 283	159 201	172 446	171 371	190 004	10.9%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		155 171	155 283	159 201	172 446	171 371	190 004	10.9%	
Algeria		-	-	-	-	-	-	-	
Norway		-	-	-	-	-	-	-	
<b>Consumption</b>									
Inputs to electricity plants		76 955	77 441	89 867	102 863	101 279	124 446	22.9%	
Inputs to heat plants		6 751	7 481	11 129	8 506	9 872	14 843	50.4%	
Consumption of energy branch		878	958	11 956	12 405	12 989	13 417	3.3%	
Distribution losses		-	-	-	-	-	-	-	
Non-energy use		1 436	1 277	1 558	1 516	1 875	1 995	6.4%	
Industry		66 398	65 023	41 366	43 646	41 822	31 432	-24.8%	
<i>among which:</i>									
Iron&steel industry		8 553	8 376	2 839	2 737	2 935	3 000	2.2%	
Non-ferrous metals		-	-	-	-	-	-	-	
Chemical industry		1 938	1 898	1 239	1 393	1 378	1 250	-9.3%	
Non-met. mineral prod.		6 878	6 736	3 073	2 406	2 394	2 200	-8.1%	
Food, drink, tobacco		2 061	2 019	1 800	2 265	1 898	1 800	-5.2%	
Pulp, paper and print		45 596	44 651	25 440	25 193	31 058	21 807	-29.8%	
Engineering & metal		-	-	128	343	287	275	-4.2%	
Other industries		1 372	1 343	5 144	8 072	372	300	-19.4%	
Transport		-	-	53	80	120	120	0.0%	
Services & households etc.		2 793	3 032	2 873	3 112	3 334	3 272	-1.9%	
<i>among which:</i>									
Households		900	1 024	971	1 044	1 211	1 166	-3.7%	
Services		1 175	1 330	1 264	1 430	1 483	1 507	1.6%	


## 6.1 Hard coal


 eurostat	SUOMI/FINLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	4 610	3 597	5 072	6 175	5 790	10 146	75.2%	
Total exports	-	-	-	-	-	-	-	
Stock changes	593	1 658	59	-53	827	-1 284	-255.3%	
Gross inland consumption	5 203	5 255	5 131	6 122	6 617	8 862	33.9%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	419	312	360	238	223	266	19.3%	
Poland	2 609	1 639	2 018	1 976	1 683	2 086	23.9%	
CIS	806	1 482	2 541	2 892	2 664	5 766	116.4%	
Australia	-	-	-	159	405	525	29.6%	
South Africa	99	131	-	-	66	412	524.2%	
Colombia	186	-	-	-	134	59	-56.0%	
<b>Consumption</b>								
Inputs to electricity plants	3 415	3 372	3 428	4 240	4 940	7 276	47.3%	
Inputs to heat plants	94	121	76	60	52	97	86.5%	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	412	491	342	401	359	260	-27.6%	
<i>among which:</i>								
Iron&steel industry	36	42	-	-	-	-	-	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	37	44	72	82	74	70	-5.4%	
Non-met. mineral prod.	264	318	168	220	199	170	-14.6%	
Food, drink, tobacco	-	-	9	9	-	-	-	
Pulp, paper and print	-	-	-	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	75	87	-	-	-	-	-	
Services & households etc.	4	4	4	4	4	4	0.0%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	SUOMI/FINLAND						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	912	900	910	909	912	895	-1.9%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	1 675	8 068	4 860	6 699	8 733	7 305	-16.4%
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	7 771	7 721	8 148	7 778	8 048	8 047	0.0%
Blast-furnace gas	16 633	16 869	17 953	15 916	16 528	17 541	6.1%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	777	788	813	814	786	811	3.2%
<i>among which:</i>							
Iron & steel industry	777	788	798	796	772	781	1.2%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	1 958	1 483	1 250	1 523	1 436	530	-63.1%
<i>among which:</i>							
Industry	1 861	1 387	1 161	1 426	1 342	435	-67.6%
Services & households	97	96	89	97	94	95	1.1%
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	4 832	7 321	7 452	7 118	7 361	7 797	5.9%
Blast-furnace gas	10 629	10 796	10 832	9 165	9 539	10 644	11.6%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	6 496	6 473	7 817	6 568	6 799	7 124	4.8%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	2 447	-	-	-	-	-	-
Consumption in industry	15 461	18 117	18 284	16 283	16 900	18 441	9.1%


## 7. Renewable energy sources

		SUOMI/FINLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	7 257	7 261	7 803	7 574	7 808	7 874	0.8%
Hydro (excl. pumping)		1 294	1 099	1 261	1 135	927	825	-11.0%
Wind		2	4	7	6	6	8	45.3%
Solar		0	0	0	0	0	0	-49.5%
Geothermal		-	-	-	-	-	-	-
Biomass		5 960	6 158	6 536	6 433	6 876	7 041	2.4%
	<i>among which:</i>							
Wood, wood-waste		5 929	6 125	6 473	6 338	6 784	6 903	1.8%
Municipal solid waste		15	15	45	77	74	118	59.5%
Biogas		16	18	18	18	17	20	14.4%
Gross inland consumption		7 257	7 261	7 803	7 574	7 808	7 874	0.8%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		1 495	1 607	1 547	1 615	1 920	2 294	19.4%
	<i>among which:</i>							
Wood, wood-waste		1 472	1 589	1 508	1 545	1 852	2 178	17.6%
Municipal waste		15	15	32	63	60	104	73.1%
Biogas		8	4	7	7	8	11	30.1%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	4 465	4 551	4 989	4 818	4 956	4 748	-4.2%
	<i>by sector:</i>							
Industry		3 326	3 436	3 904	3 657	3 773	3 582	-5.1%
Services & households etc.		1 140	1 114	1 085	1 161	1 183	1 166	-1.4%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		4 465	4 550	4 989	4 818	4 955	4 748	-4.2%
	<i>among which:</i>							
Wood, wood-waste		4 457	4 536	4 965	4 793	4 932	4 725	-4.2%
Municipal waste		-	-	13	14	14	14	0.0%
Biogas		8	14	11	10	9	9	0.0%
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		158	112	134	127	97	90	-7.2%
Hydro with installed capacity > 1 & <10 MW		1 170	885	1 058	1 031	756	663	-12.3%
Hydro with installed capacity > 10 MW		13 723	11 783	13 468	12 047	9 923	8 838	-10.9%
Wood, Wood-waste		7 492	8 341	8 476	8 189	9 496	9 385	-1.2%
Municipal waste		7	-	59	200	215	291	35.3%
Biogas		30	22	22	22	29	24	-17.2%

		SUOMI/FINLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		-	-	-	3	3	3	0.0%
Hydro with installed capacity < 1 MW		30	30	29	29	29	:	
Hydro with installed capacity > 1 & <10 MW		274	274	279	280	280	:	
Hydro with installed capacity > 10 MW		2 577	2 577	2 574	2 586	2 655	:	
Wood, Wood-waste		1 100	1 200	1 300	1 500	1 500	:	
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	-	-	-	-
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	8	8	8	8	8	8	0.0%


# 1. Energy economy

## Key figures and energy indicators

		SVERIGE					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	33 178	33 257	30 144	33 685	31 849	31 124
Net energy imports		19 688	18 019	19 094	19 036	19 630	22 526
Net oil imports		17 614	15 749	15 654	16 500	16 085	18 131
Net gas imports		712	714	698	788	802	799
Gross inland energy consumption		50 699	50 812	47 863	51 474	51 435	50 878
Final energy consumption		34 204	34 076	34 532	33 132	33 668	33 841
Industry		13 027	13 048	13 610	12 534	12 683	12 662
Transport		7 783	8 000	8 127	8 565	7 968	8 102
Services and households etc.		13 395	13 029	12 795	12 033	13 017	13 077
Gross electricity generation	GWh	158 275	155 171	145 585	161 616	146 733	135 571
Final electricity consumption		126 439	126 580	128 725	132 673	131 279	129 773
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	204 007	213 347	222 578	224 908	229 352	232 716
Population	1000 per.	8 848	8 854	8 861	8 883	8 909	8 941
Industry added value	Mio EUR	58 417	62 734	67 343	66 799	69 419	70 680
Total imports (current prices)	Mio EUR	79 671	83 549	93 029	90 623	88 906	93 244
among which:							
All energy commodities		2 804	3 856	7 147	6 108	6 196	6 931
Oil products		2 480	3 408	6 436	5 407	5 215	5 658
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	248.5	238.2	215.0	228.9	224.3	218.6
Final energy consumption / GDP(95)		167.7	159.7	155.1	147.3	146.8	145.4
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		223.0	208.0	202.1	187.6	182.7	179.1
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		37.7	38.2	36.1	30.7	36.5	36.1
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	5 730	5 739	5 401	5 795	5 773	5 691
Final energy consumption / capita		3 866	3 849	3 897	3 730	3 779	3 785
Household consumption / capita		923	867	851	844	853	847
Electricity consumption / capita	kWh/cap.	8 247	8 539	8 033	8 416	9 550	10 569
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	37.7	34.4	38.8	36.0	37.3	42.9
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	67.5	67.1	72.1	64.4	65.5	66.5
Efficiency of thermal power stations		89.3	83.7	85.1	88.6	88.0	82.7

## 2. Energy balance

### Principal aggregates by product

 eurostat	SVERIGE						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	33 178	33 257	30 144	33 685	31 849	31 124	-2.3%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	342	249	231	272	343	356	3.9%
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	18 554	18 879	14 781	18 601	17 569	17 390	-1.0%
Hydro-electricity	6 391	6 164	6 757	6 798	5 706	4 576	-19.8%
Biomass	7 859	7 929	8 330	7 967	8 174	8 743	7.0%
<b>Imports</b>							
Total	30 404	29 182	31 241	30 391	30 233	33 589	11.1%
<i>among which:</i> Hard coal	2 079	2 019	2 137	2 117	1 911	2 202	15.3%
Crude oil and feedstocks	20 275	19 721	20 938	20 030	18 676	20 498	9.8%
Petroleum products	6 554	5 762	5 668	6 215	6 730	7 670	14.0%
Natural Gas	712	714	698	788	802	799	-0.3%
Electricity	525	727	1 574	960	1 729	2 088	20.8%
<b>Exports</b>							
Total	10 716	11 163	12 146	11 355	10 603	11 063	4.3%
<i>among which:</i> Crude oil and feedstocks	400	446	566	544	406	234	-42.2%
Petroleum products	8 815	9 289	10 386	9 200	8 915	9 803	10.0%
Natural gas	-	-	-	-	-	-	-
Electricity	1 444	1 370	1 172	1 587	1 269	985	-22.3%
<b>Gross inland consumption</b>							
Total	50 699	50 812	47 863	51 474	51 435	50 878	-1.1%
<i>among which:</i> Solid fuels	2 582	2 438	2 442	2 753	2 843	2 689	-5.4%
Crude oil and petrol. prod.	15 411	15 197	14 382	15 119	15 773	15 467	-1.9%
Natural gas	712	714	698	788	802	799	-0.3%
Nuclear Energy	18 554	18 879	14 781	18 601	17 569	17 390	-1.0%
Renewables	14 282	14 129	15 132	14 813	13 936	13 378	-4.0%
<b>Transformation input</b>							
Total	46 518	46 799	42 454	46 435	44 474	45 284	1.8%
<i>among which:</i> Crude oil and feedstocks	21 384	21 340	21 618	20 917	19 923	20 309	1.9%
Petroleum products	1 099	907	521	726	823	934	13.5%
Hard coal	1 682	1 700	1 632	1 690	1 627	1 709	5.0%
Lignite and peat	324	242	200	228	327	341	4.3%
Renewables	2 460	2 699	2 868	3 312	3 195	3 597	12.6%
<b>Transformation output</b>							
Total	33 606	33 770	32 301	32 564	30 971	31 528	1.8%
<i>among which:</i> Electricity	7 194	7 144	5 719	7 055	6 856	7 022	2.4%
Heat	3 949	3 982	3 777	4 157	4 146	4 217	1.7%

**Final energy consumption**

Total	34 204	34 076	34 532	33 132	33 668	33 841	0.5%
<i>among which:</i> Solid fuels	1 071	1 013	1 141	1 153	1 336	1 208	-9.6%
Petroleum products	12 541	12 507	12 655	11 202	11 370	11 525	1.4%
Natural Gas	406	429	421	468	436	471	7.8%
Renewables	5 399	5 230	5 462	4 655	4 979	5 146	3.4%
Electricity	10 872	10 884	11 068	11 408	11 288	11 158	-1.1%

**Final energy consumption by sector**
**Industry**

Total	13 027	13 048	13 610	12 534	12 683	12 662	-0.2%
<i>among which:</i> Solid fuels	1 070	1 013	1 141	1 153	1 336	1 208	-9.6%
Petroleum Products	2 066	1 980	1 909	1 479	1 506	1 573	4.4%
Natural Gas	274	292	288	323	300	314	4.5%
Renewables	4 424	4 386	4 833	4 061	4 014	4 172	3.9%
Electricity	4 675	4 813	4 896	4 911	4 925	4 782	-2.9%

**Transport**


Total	7 783	8 000	8 127	8 565	7 968	8 102	1.7%
<i>among which:</i> Motor spirit	4 226	4 246	4 185	4 167	4 300	4 318	0.4%
Diesel oil	2 398	2 519	2 692	3 155	2 647	2 754	4.0%
Jet fuel	879	939	928	946	721	700	-2.8%
Electricity	240	259	275	246	247	248	0.5%

**Services&households**


Total	13 395	13 029	12 795	12 033	13 017	13 077	0.5%
<i>among which:</i> Solid fuels	1	-	-	-	-	-	-
Gas oil	2 615	2 468	2 778	1 320	2 059	2 014	-2.2%
Natural Gas	128	134	124	135	125	140	12.4%
Renewables	975	844	629	594	965	973	0.9%
Electricity	5 956	5 812	5 898	6 250	6 117	6 129	0.2%
Heat	3 358	3 411	3 206	3 602	3 621	3 682	1.7%




### 3.1 Electricity balance

 eurostat	SVERIGE						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	158 275	155 171	145 585	161 616	146 733	135 571	-7.6%
<i>among which:</i>							
Hydro	74 378	71 713	78 619	79 082	66 395	53 273	-19.8%
Wind	316	371	457	482	608	631	3.8%
Geothermal	-	-	-	-	-	-	-
Nuclear	73 583	73 188	57 316	72 109	68 111	67 415	-1.0%
Conventional thermal	9 998	9 899	9 193	9 943	11 619	14 252	22.7%
<i>of which:</i>							
Hard coal	2 102	2 242	1 636	1 879	2 357	2 733	16.0%
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	3 264	3 094	1 729	2 475	3 089	3 863	25.1%
Natural gas	431	398	462	361	563	559	-0.7%
Derived gases	1 113	998	953	1 186	1 106	1 226	10.8%
Biomass	2 760	2 646	4 206	3 881	4 327	5 568	28.7%
Industrial wastes	328	521	207	161	177	303	71.2%
Total net generation	153 788	150 783	141 873	157 636	143 233	132 510	-7.5%
<b>Imports and exports</b>							
Total imports	6 102	8 456	18 308	11 164	20 110	24 287	20.8%
Total exports	16 799	15 938	13 630	18 454	14 754	11 457	-22.3%
<b>Consumption and losses</b>							
Consumption of the energy branch	10 912	10 504	10 409	9 828	8 892	8 112	-8.8%
<i>of which:</i>							
Consumption for pumped-storage	17	10	14	10	16	23	43.8%
Network losses	10 935	10 570	11 094	11 803	11 883	10 458	-12.0%
Final energy consumption	126 439	126 580	128 725	132 673	131 279	129 773	-1.1%
<i>of which:</i>							
Industry	54 369	55 971	56 938	57 119	57 273	55 615	-2.9%
<i>among which:</i>							
Iron&steel industry	4 997	4 963	5 365	4 959	4 873	4 719	-3.2%
Non-ferrous metals	2 700	2 664	2 799	2 931	2 972	2 915	-1.9%
Chemical industry	5 988	5 998	5 423	5 543	5 560	6 628	19.2%
Non-met. mineral prod.	1 115	1 127	1 174	1 441	1 177	1 052	-10.6%
Food, drink, tobacco	2 435	2 512	2 989	2 849	2 683	2 283	-14.9%
Pulp, paper and print	21 091	21 584	23 564	23 209	22 729	22 197	-2.3%
Engineering & metal	4 269	4 214	4 348	4 488	4 403	4 286	-2.7%
Other industries	8 929	10 122	8 375	8 730	9 929	8 869	-10.7%
Transport	2 796	3 016	3 194	2 862	2 867	2 880	0.5%
Services & households etc.	69 274	67 593	68 593	72 692	71 139	71 278	0.2%
<i>among which:</i>							
Households	42 496	40 163	42 020	42 180	41 473	41 046	-1.0%


## 3.2 Electrical capacity, fuel inputs and heat


		SVERIGE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	33 025	34 098	33 721	33 835	32 503	33 361	2.6%
<i>by source:</i>								
Conventional thermal		6 508	7 375	7 526	7 536	6 462	7 378	14.2%
<i>of which:</i>								
Steam		4 437	5 314	5 337	5 312	4 749	5 669	19.4%
Gas turbine		1 904	1 812	1 932	1 932	1 519	1 515	-0.3%
Combined cycle		95	146	175	175	88	88	0.0%
Internal combustion		72	103	82	117	106	106	0.0%
Nuclear		10 083	10 076	9 461	9 436	9 452	9 441	-0.1%
Hydro		16 260	16 451	16 525	16 568	16 232	16 143	-0.5%
<i>among which:</i>								
Pumped storage		91	19	19	45	45	45	0.0%
Wind		174	196	209	295	357	399	11.8%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		32 082	33 065	32 714	32 824	31 421	32 340	2.9%
Autoproducers		947	1 018	1 010	1 011	1 085	1 024	-5.6%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	3 453	3 423	3 165	3 493	3 823	4 464	16.8%
<i>among which:</i>								
Hard coal		442	432	361	306	390	464	19.1%
Lignite and peat		224	115	106	135	195	227	16.8%
Petroleum products		656	589	276	405	543	654	20.4%
Natural gas		255	221	204	193	249	233	-6.4%
Renewables		1 587	1 777	1 996	2 190	2 162	2 602	20.4%
Heating plants		1 407	1 410	1 186	1 542	1 446	1 392	-3.7%
<i>among which:</i>								
Hard coal		2	3	1	1	1	1	100.0%
Lignite and peat		100	126	95	93	132	113	-14.0%
Petroleum products		354	242	176	236	209	214	2.6%
Natural gas		75	75	38	88	67	51	-24.6%
Renewables		873	922	872	1 122	1 034	996	-3.7%
<b>Heat production and consumption</b>								
Total heat production	TJ	3 949	3 982	3 777	4 157	4 146	4 217	1.7%
<i>among which: in heating plants</i>								
		1 732	1 968	1 874	1 918	1 779	1 750	-1.6%
Heat consumption		3 667	3 767	3 550	3 987	4 012	4 063	1.3%
<i>of which: in industry</i>								
		309	356	344	385	391	381	-2.6%
<i>in households and services</i>								
		3 358	3 411	3 206	3 602	3 621	3 682	1.7%
<i>among which: in households</i>								
		2 195	2 233	2 081	2 362	2 371	2 408	1.6%

## 4.1 Crude oil and feedstocks


 eurostat	SVERIGE						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 t</i>							
<b>Primary production and supply</b>							
Primary production	-	-	-	-	-	-	-
Total imports	20 241	19 693	20 901	20 040	18 727	20 502	9.5%
Total exports	394	439	558	536	400	231	-42.3%
Stock changes	-125	30	-115	-177	396	-423	-206.8%
Refinery intake	21 335	21 294	21 569	20 918	19 968	20 312	1.7%
<b>Imports of Crude Oil by origin</b>							
<i>by region of origin:</i>							
OPEC	4 979	3 938	3 892	5 341	3 231	3 968	22.8%
Near and Middle East	3 523	3 019	2 596	4 227	1 979	3 151	59.2%
Africa	464	34	296	279	237	-	
<i>by country of origin:</i>							
Algeria	-	-	-	-	-	-	-
Nigeria	373	-	266	252	130	-	-
Saudi Arabia	1 648	1 065	832	1 146	-	-	-
Kuwait	-	-	-	-	-	-	-
United Arab Emirates	-	-	-	-	-	-	-
Norway	9 775	10 459	9 601	9 143	6 169	7 650	24.0%
<b>Refining capacity</b>							
Capacity at the end of year	<i>1 000 t/year</i>	19 200	19 200	19 200	:	:	:
<i>among which:</i>							
Cracking and others		6 540	6 540	6 540	:	:	:
Reforming		3 500	3 500	3 500	:	:	:

## 4.2 Petroleum products


 eurostat	SVERIGE						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	21 001	21 160	21 368	19 846	18 542	18 641	0.5%
among which:							
Motor spirit	4 336	4 303	4 394	4 020	3 987	4 309	8.1%
Kerosene and jet fuel	101	72	112	143	57	109	91.2%
Naphtha	1 613	1 847	1 320	1 026	1 027	315	-69.3%
Gas/diesel oil	7 510	7 452	7 765	7 677	6 964	6 942	-0.3%
Residual fuel oil	5 959	5 673	6 403	5 519	5 069	5 170	2.0%
Total imports	6 395	5 571	5 485	6 019	6 475	7 417	14.5%
Total exports	8 835	9 281	10 388	9 179	8 902	9 774	9.8%
Bunkers	1 609	1 553	1 396	1 429	1 239	1 660	34.0%
Stock changes	-556	951	190	175	463	-646	-239.5%
Gross inland consumption	-4 605	-4 312	-6 109	-4 414	-3 203	-4 663	-45.6%
<b>Imports and exports</b>							
Imports by origin							
among which:							
Netherlands	88	63	76	42	6	61	916.7%
United Kingdom	660	403	590	625	559	778	39.2%
Norway	838	837	442	963	2 076	2 426	16.9%
OPEC	109	110	101	33	115	102	-11.3%
Imports by product							
among which:							
Motor spirit	1 581	1 600	1 593	1 619	1 717	1 753	2.1%
Kerosene and jet fuel	673	694	754	839	518	596	15.1%
Gas/diesel oil	1 631	1 548	1 282	1 267	1 909	2 311	21.1%
Residual fuel oil	923	475	519	715	544	759	39.5%
Exports by product							
among which:							
Motor spirit	1 893	2 062	1 993	1 705	1 607	1 963	22.2%
Kerosene and jet fuel	17	22	45	-	17	15	-11.8%
Gas/diesel oil	3 198	3 651	3 859	3 771	3 574	3 810	6.6%
Residual fuel oil	2 993	2 752	3 538	3 041	2 617	2 860	9.3%
<b>Consumption</b>							
Inputs to electricity plants	678	609	285	419	560	675	20.5%
Inputs to heating plants	362	246	178	240	212	218	2.8%
Non-energy use	1 643	1 697	1 452	2 081	2 202	1 960	-11.0%
Final energy consumption	12 254	12 223	12 361	10 933	11 095	11 254	1.4%
Industry							
among which <i>by product</i> :							
Gas/diesel oil	418	425	429	273	270	277	2.6%
Residual fuel oil	900	899	858	893	875	936	7.0%

 eurostat	SVERIGE						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>							
<i>among which by sector:</i>							
Iron&steel industry	315	309	301	303	325	327	0.6%
Non-ferrous metals	27	28	36	23	16	21	31.3%
Chemical industry	366	311	308	84	27	29	7.4%
Non-met. mineral prod.	146	171	174	130	163	148	-9.2%
Food, drink, tobacco	184	180	133	150	158	181	14.6%
Pulp, paper and print	507	500	500	485	497	548	10.3%
Engineering & metal	200	181	152	149	155	168	8.4%
Other industries	192	185	224	65	79	68	-13.9%
<b>Transport</b>	7 288	7 483	7 590	8 052	7 458	7 585	1.7%
<i>among which:</i>							
Motor spirit	4 021	4 040	3 982	3 965	4 092	4 109	0.4%
Jet fuel	856	914	904	921	702	682	-2.8%
Diesel oil	2 374	2 493	2 665	3 123	2 620	2 726	4.0%
<b>Services &amp; households etc.</b>	2 919	2 773	2 874	1 396	2 130	2 093	-1.7%
<i>among which:</i>							
Gas oil	2 588	2 443	2 750	1 307	2 038	1 993	-2.2%
Residual fuel oil	298	289	83	35	46	60	30.4%
<b>Stocks at end of period</b>							
Crude oil and feedstocks	1 392	1 362	1 474	1 611	1 269	1 692	33.3%
Petroleum products	4 774	3 823	3 719	3 759	3 296	3 942	19.6%


## 5. Natural gas

 eurostat	SVERIGE								
	in TJ (GCV)		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		-	-	-	-	-	-	-	-
Total imports		33 143	33 215	32 483	36 648	37 295	37 189	-0.3%	
Total exports		-	-	-	-	-	-	-	
Stock changes		-	-	-	-	-	-	-	
Gross inland consumption		33 143	33 215	32 483	36 648	37 295	37 189	-0.3%	
<b>Imports</b>									
Imports by origin									
<i>among which:</i>									
CIS		-	-	-	-	-	-	-	
Algeria		-	-	-	-	-	-	-	
Norway		-	-	-	-	-	-	-	
<b>Consumption</b>									
Inputs to electricity plants		11 859	10 276	9 467	8 974	11 587	10 849	-6.4%	
Inputs to heat plants		3 473	3 473	1 783	4 084	3 130	2 360	-24.6%	
Consumption of energy branch		-	3	158	73	174	152	-12.6%	
Distribution losses		-	-	-	-	-	-	-	
Non-energy use		-	-	-	-	-	-	-	
Industry		12 737	13 568	13 377	15 045	13 975	14 603	4.5%	
<i>among which:</i>									
Iron&steel industry		849	839	1 050	959	1 079	1 119	3.7%	
Non-ferrous metals		515	382	389	360	280	240	-14.3%	
Chemical industry		1 460	1 415	2 916	2 637	3 197	3 397	6.3%	
Non-met. mineral prod.		924	715	1 555	2 797	2 078	2 118	1.9%	
Food, drink, tobacco		4 282	5 599	4 704	4 595	4 635	4 675	0.9%	
Pulp, paper and print		2 515	1 690	1 322	2 198	1 359	1 838	35.2%	
Engineering & metal		1 601	1 973	942	858	813	680	-16.4%	
Other industries		454	727	382	521	454	456	0.4%	
Transport		159	124	449	456	532	773	45.3%	
Services & households etc.		5 973	6 248	5 775	6 264	5 794	6 515	12.4%	
<i>among which:</i>									
Households		3 447	3 831	3 351	4 006	2 085	1 723	-17.4%	
Services		1 617	1 474	1 458	1 343	2 768	3 813	37.8%	

## 6.1 Hard coal


 eurostat	SVERIGE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	3 069	2 930	3 092	3 064	2 760	3 195	15.8%	
Total exports	2	2	2	2	2	2	0.0%	
Stock changes	-78	-69	-229	209	263	-270	-202.7%	
Gross inland consumption	2 989	2 859	2 861	3 271	3 021	2 923	-3.2%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	832	548	595	487	319	346	8.5%	
Poland	787	894	698	280	358	570	59.2%	
CIS	183	188	321	345	474	677	42.8%	
Australia	851	1 009	1 073	1 167	1 085	1 208	11.3%	
South Africa	-	-	-	-	-	-	-	
Colombia	-	115	120	166	83	-	-	
<b>Consumption</b>								
Inputs to electricity plants	702	600	501	506	588	698	18.7%	
Inputs to heat plants	4	5	1	2	1	2	100.0%	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	724	656	767	872	930	681	-26.8%	
<i>among which:</i>								
Iron&steel industry	288	307	313	483	507	291	-42.6%	
Non-ferrous metals	57	57	65	56	58	52	-10.3%	
Chemical industry	-	-	-	-	-	-	-	
Non-met. mineral prod.	244	179	252	252	240	197	-17.9%	
Food, drink, tobacco	19	21	19	-	-	-	-	
Pulp, paper and print	29	30	31	15	15	11	-26.7%	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	-	1	2	-	-	-	-	
Services & households etc.	2	-	-	-	-	-	-	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	


## 6.2 Coal derivatives and peat

	SVERIGE						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	1 148	1 145	1 146	1 148	1 074	1 288	19.9%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	1 145	835	773	910	1 148	1 193	3.9%
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	9 087	10 021	9 684	10 331	9 467	8 840	-6.6%
Blast-furnace gas	16 192	16 712	15 010	17 114	16 707	17 345	3.8%
Gasworks gas	2 077	2 003	1 875	1 948	1 914	1 962	2.5%
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	866	856	947	854	1 077	1 118	3.8%
<i>among which:</i>							
Iron & steel industry	796	784	873	788	1 008	1 055	4.7%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	22	26	10	33	26	39	50.0%
<i>among which:</i>							
Industry	22	26	10	33	26	39	50.0%
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	14	5	3	8	-	-	-
<i>among which:</i>							
Industry	14	5	3	8	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	4 066	4 524	4 395	4 309	4 382	3 914	-10.7%
Blast-furnace gas	4 855	4 417	4 207	5 175	4 702	6 041	28.5%
Gasworks gas	1 892	1 840	1 599	1 720	1 676	1 734	3.5%
Inputs to electricity plants	8 897	9 727	8 378	9 974	9 866	9 814	-0.5%
Inputs to heat plants	148	132	192	113	177	724	309.0%
Consumption of energy branch	4 484	4 995	4 794	4 933	4 390	4 302	-2.0%
Consumption in industry	9 172	9 226	8 801	9 688	9 261	10 129	9.4%




## 7. Renewable energy sources

		SVERIGE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	14 282	14 129	15 132	14 813	13 936	13 378	-4.0%
Hydro (excl. pumping)		6 391	6 164	6 757	6 798	5 706	4 576	-19.8%
Wind		27	31	39	41	52	54	3.8%
Solar		5	5	5	6	4	5	11.2%
Geothermal		-	-	-	-	-	-	-
Biomass		7 859	7 929	8 330	7 967	8 174	8 743	7.0%
	<i>among which:</i>							
Wood, wood-waste		7 340	7 406	7 733	7 347	7 575	8 049	6.3%
Municipal solid waste		416	421	498	495	480	582	21.1%
Biogas		103	102	99	125	119	112	-5.6%
Gross inland consumption		14 282	14 129	15 132	14 813	13 936	13 378	-4.0%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		2 460	2 699	2 868	3 312	3 195	3 597	12.6%
	<i>among which:</i>							
Wood, wood-waste		1 941	2 176	2 271	2 692	2 684	2 987	11.3%
Municipal waste		416	421	498	495	480	582	21.1%
Biogas		103	102	99	125	31	28	-8.9%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	5 404	5 235	5 467	4 661	4 983	5 150	3.4%
	<i>by sector:</i>							
Industry		4 424	4 386	4 833	4 061	4 014	4 172	3.9%
Services & households etc.		980	849	634	600	969	978	1.0%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		5 399	5 230	5 462	4 655	4 979	5 146	3.4%
	<i>among which:</i>							
Wood, wood-waste		5 399	5 230	5 462	4 655	4 891	5 062	3.5%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	87	84	-4.4%
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	1	-	-	-
Hydro with installed capacity < 1 MW		859	664	753	612	517	547	5.8%
Hydro with installed capacity > 1 & <10 MW		3 589	3 291	3 427	3 195	2 636	2 133	-19.1%
Hydro with installed capacity > 10 MW		69 894	67 735	74 404	75 338	63 204	50 343	-20.3%
Wood, Wood-waste		2 573	2 507	3 943	3 635	4 023	5 220	29.8%
Municipal waste		183	130	231	225	277	312	12.6%
Biogas		21	9	32	21	27	36	33.3%

		SVERIGE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		2	3	3	1	3	3	0.0%
Hydro with installed capacity < 1 MW		171	168	178	174	162	173	6.8%
Hydro with installed capacity > 1 & <10 MW		765	775	741	881	774	772	-0.3%
Hydro with installed capacity > 10 MW		15 483	15 470	15 587	15 468	15 251	15 153	-0.6%
Wood, Wood-waste		1 331	1 490	1 490	1 778	1 670	1 670	0.0%
Municipal waste		73	77	77	171	170	170	0.0%
Biogas		-	18	18	19	20	20	0.0%
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	-	-	-	-
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	181	185	207	229	250	185	-26.0%


# 1. Energy economy

## Key figures and energy indicators

		UNITED KINGDOM					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	268 787	276 823	268 299	257 986	254 287	242 757
Net energy imports		-36 385	-46 945	-39 031	-21 320	-27 558	-13 728
Net oil imports		-50 264	-55 324	-45 515	-35 630	-38 743	-26 930
Net gas imports		-1 627	-5 539	-9 310	-8 340	-6 983	-7 022
Gross inland energy consumption		230 304	228 717	230 416	231 962	226 374	229 822
Final energy consumption		148 443	150 917	150 821	152 833	148 294	150 058
Industry		35 207	36 136	35 319	36 244	33 909	35 254
Transport		50 045	51 822	52 066	51 087	51 614	52 205
Services and households etc.		63 191	62 959	63 436	65 502	62 771	62 598
Gross electricity generation	GWh	362 015	368 363	377 309	384 682	387 506	398 620
Final electricity consumption		315 644	322 770	329 533	332 995	333 337	337 443
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	948 881	975 996	1 013 666	1 036 999	1 055 336	1 078 495
Population	1000 per.	59 090	59 391	59 623	59 863	59 140	59 329
Industry added value	Mio EUR	257 619	260 317	264 980	262 280	258 503	260 488
Total imports (current prices)	Mio EUR	328 620	354 544	386 887	405 787	422 238	430 285
among which:							
All energy commodities		6 966	7 960	15 710	16 265	15 139	16 083
Oil products		5 218	6 295	13 467	13 540	12 815	14 029
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	242.7	234.3	227.3	223.7	214.5	213.1
Final energy consumption / GDP(95)		156.4	154.6	148.8	147.4	140.5	139.1
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		136.7	138.8	133.3	138.2	131.2	135.3
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		31.6	31.0	29.3	2.9	25.6	24.8
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	3 898	3 851	3 865	3 875	3 828	3 874
Final energy consumption / capita		2 512	2 541	2 530	2 553	2 508	2 529
Household consumption / capita		724	713	723	744	743	743
Electricity consumption / capita	kWh/cap.	6 207	6 289	6 420	6 477	6 548	6 633
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	-15.6	-20.3	-16.8	-9.1	-12.1	-5.9
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	64.5	66.0	65.5	65.9	65.5	65.3
Efficiency of thermal power stations		40.6	44.2	43.9	43.2	44.2	43.4

## 2. Energy balance

### Principal aggregates by product

 eurostat	UNITED KINGDOM						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	268 787	276 823	268 299	257 986	254 287	242 757	-4.5%
<i>among which:</i> Hard coal	25 155	21 533	18 221	18 708	17 547	16 490	-6.0%
Lignite and peat	-	-	-	-	-	-	-
Crude oil	134 373	139 150	127 882	118 245	117 858	107 642	-8.7%
Natural Gas	81 131	89 161	97 654	95 257	93 408	92 644	-0.8%
Nuclear heat	25 831	24 540	21 942	23 182	22 661	22 877	1.0%
Hydro-electricity	450	461	437	349	412	278	-32.6%
Biomass	1 763	1 897	2 069	2 148	2 276	2 695	18.4%
<b>Imports</b>							
Total	77 360	75 166	87 767	97 178	96 826	100 099	3.4%
<i>among which:</i> Hard coal	14 804	13 053	14 946	22 307	17 910	19 910	11.2%
Crude oil and feedstocks	48 683	45 563	55 104	54 278	57 902	54 980	-5.0%
Petroleum products	11 395	14 011	14 134	17 207	15 369	17 421	13.4%
Natural Gas	819	995	2 015	2 358	4 681	6 678	42.7%
Electricity	1 086	1 247	1 230	917	790	440	-44.2%
<b>Exports</b>							
Total	113 745	122 111	126 797	118 497	124 384	113 828	-8.5%
<i>among which:</i> Crude oil and feedstocks	85 894	93 171	94 129	88 089	88 580	76 007	-14.2%
Petroleum products	24 448	21 728	20 624	19 025	23 434	23 324	-0.5%
Natural gas	2 446	6 534	11 325	10 697	11 665	13 700	17.5%
Electricity	14	23	12	23	66	254	285.3%
<b>Gross inland consumption</b>							
Total	230 304	228 717	230 416	231 962	226 374	229 822	1.5%
<i>among which:</i> Solid fuels	41 169	34 216	35 722	39 059	35 660	38 391	7.7%
Crude oil and petrol. prod.	80 555	82 102	81 399	79 331	78 627	79 328	0.9%
Natural gas	79 342	84 160	87 500	86 866	85 855	85 893	0.0%
Nuclear Energy	25 831	24 540	21 942	23 182	22 661	22 877	1.0%
Renewables	2 296	2 438	2 599	2 594	2 813	3 105	10.4%
<b>Transformation input</b>							
Total	183 503	176 089	177 898	174 685	173 774	176 513	1.6%
<i>among which:</i> Crude oil and feedstocks	95 351	89 739	89 299	84 472	86 176	85 839	-0.4%
Petroleum products	1 067	646	1 471	1 604	936	769	-17.9%
Hard coal	36 966	30 673	33 886	36 031	33 186	35 856	8.0%
Lignite and peat	-	-	-	-	-	-	-
Renewables	972	1 273	1 515	1 587	1 708	2 119	24.1%
<b>Transformation output</b>							
Total	132 853	128 503	128 958	124 257	125 336	126 728	1.1%
<i>among which:</i> Electricity	30 462	30 890	31 692	32 443	32 572	33 652	3.3%
Heat	-	2 498	2 515	2 330	2 107	1 797	-14.7%

**Final energy consumption**

Total	148 443	150 917	150 821	152 833	148 294	150 058	1.2%
<i>among which:</i> Solid fuels	7 245	6 495	5 029	5 872	4 670	4 124	-11.7%
Petroleum products	61 690	63 107	62 480	62 408	61 943	62 917	1.6%
Natural Gas	50 270	49 633	51 115	52 224	49 698	51 072	2.8%
Renewables	791	624	553	559	568	577	1.5%
Electricity	27 140	27 753	28 335	28 632	28 662	29 015	1.2%

**Final energy consumption by sector**
**Industry**

Total	35 207	36 136	35 319	36 244	33 909	35 254	4.0%
<i>among which:</i> Solid fuels	4 639	4 367	3 400	4 072	3 175	3 236	1.9%
Petroleum Products	6 157	6 423	6 019	6 439	6 106	7 045	15.4%
Natural Gas	13 626	13 683	14 063	14 153	12 801	13 323	4.1%
Renewables	450	280	210	211	211	223	5.7%
Electricity	9 075	9 532	9 780	9 605	9 677	9 796	1.2%


**Transport**

Total	50 045	51 822	52 066	51 087	51 614	52 205	1.1%
<i>among which:</i> Motor spirit	22 996	23 792	22 757	22 060	21 919	20 980	-4.3%
Diesel oil	16 768	17 031	17 358	17 622	18 049	19 296	6.9%
Jet fuel	9 456	10 186	11 140	10 557	10 782	11 034	2.3%
Electricity	720	736	747	760	729	733	0.6%


**Services&households**

Total	63 191	62 959	63 436	65 502	62 771	62 598	-0.3%
<i>among which:</i> Solid fuels	2 606	2 127	1 628	1 799	1 495	887	-40.7%
Gas oil	2 603	2 290	2 136	1 845	1 615	957	-40.8%
Natural Gas	36 644	35 950	37 052	38 070	36 896	37 750	2.3%
Renewables	341	343	344	348	357	354	-1.0%
Electricity	17 345	17 485	17 808	18 268	18 255	18 486	1.3%
Heat	-	1 412	1 416	1 326	763	658	-13.8%


### 3.1 Electricity balance

 eurostat	UNITED KINGDOM							
	<i>in GWh</i>	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>								
Total gross generation	362 015	368 363	377 309	384 682	387 506	398 620	2.9%	
<i>among which:</i>								
Hydro	6 861	8 263	7 780	6 411	7 439	5 962	-19.9%	
Wind	877	850	946	965	1 256	1 285	2.3%	
Geothermal	-	-	-	-	-	-	-	
Nuclear	100 140	95 133	85 063	89 870	87 848	88 686	1.0%	
Conventional thermal	254 137	264 117	283 520	287 436	290 963	302 687	4.0%	
<i>of which:</i>								
Hard coal	122 862	106 112	119 960	131 466	124 297	138 242	11.2%	
Lignite and peat	-	-	-	-	-	-	-	
Petroleum products	6 489	5 685	8 548	7 232	7 108	7 017	-1.3%	
Natural gas	117 124	143 052	148 237	141 990	152 317	148 637	-2.4%	
Derived gases	4 423	5 289	2 352	1 692	1 614	2 070	28.3%	
Biomass	2 917	3 979	4 349	4 984	5 285	6 718	27.1%	
Industrial wastes	322	-	74	72	342	3	-99.1%	
Total net generation	344 329	351 670	360 975	367 567	370 335	380 381	2.7%	
<b>Imports and exports</b>								
Total imports	12 630	14 507	14 308	10 663	9 182	5 119	-44.2%	
Total exports	162	263	134	264	768	2 959	285.3%	
<b>Consumption and losses</b>								
Consumption of the energy branch	28 053	27 147	28 015	27 751	29 083	29 781	2.4%	
<i>of which:</i>								
Consumption for pumped-storage	970	872	805	854	811	812	0.1%	
Network losses	29 162	29 789	31 241	31 980	31 029	30 822	-0.7%	
Final energy consumption	315 644	322 770	329 533	332 995	333 337	337 443	1.2%	
<i>of which:</i>								
Industry	105 547	110 856	113 741	111 709	112 548	113 925	1.2%	
<i>among which:</i>								
Iron&steel industry	9 699	9 779	9 898	8 428	6 534	6 545	0.2%	
Non-ferrous metals	5 698	5 895	6 012	7 172	6 296	6 571	4.4%	
Chemical industry	19 493	21 348	22 947	20 830	22 613	21 750	-3.8%	
Non-met. mineral prod.	7 051	7 265	7 414	7 186	6 997	7 540	7.8%	
Food, drink, tobacco	11 765	12 617	12 003	11 120	11 979	11 820	-1.3%	
Pulp, paper and print	10 651	11 068	11 345	11 216	11 831	12 519	5.8%	
Engineering & metal	20 143	20 429	21 105	19 265	19 928	20 284	1.8%	
Other industries	17 381	18 704	19 108	23 286	22 951	23 478	2.3%	
Transport	8 372	8 558	8 684	8 834	8 479	8 528	0.6%	
Services & households etc.	201 725	203 356	207 108	212 452	212 310	214 990	1.3%	
<i>among which:</i>								
Households	109 610	110 308	111 842	115 336	114 534	115 761	1.1%	

## 3.2 Electrical capacity, fuel inputs and heat


		UNITED KINGDOM						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	73 345	75 611	78 569	79 729	76 985	78 538	2.0%
<i>by source:</i>								
Conventional thermal		55 795	58 033	61 398	62 520	59 933	61 872	3.2%
<i>of which:</i>								
Steam		38 327	37 990	37 273	37 218	32 192	32 921	2.3%
Gas turbine		1 492	2 017	2 026	2 010	2 435	2 170	-10.9%
Combined cycle		15 418	17 058	21 138	22 294	23 654	25 535	8.0%
Internal combustion		156	171	176	172	167	170	1.8%
Nuclear		12 956	12 956	12 486	12 486	12 486	12 098	-3.1%
Hydro		4 263	4 265	4 273	4 296	4 254	4 256	0.0%
<i>among which:</i>								
Pumped storage		2 788	2 788	2 788	2 788	2 788	2 788	0.0%
Wind		331	357	412	427	312	312	0.0%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		68 390	70 057	72 030	73 219	70 615	71 746	1.6%
Autoproducers		4 763	5 349	6 541	6 269	6 376	6 798	6.6%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	53 795	51 350	55 481	57 228	56 641	59 914	5.8%
<i>among which:</i>								
Hard coal		30 205	24 224	27 234	30 184	28 188	31 190	10.6%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		1 067	646	806	962	696	618	-11.3%
Natural gas		20 719	24 415	25 137	23 980	25 548	25 147	-1.6%
Renewables		972	1 169	1 410	1 516	1 637	2 060	25.8%
Heating plants		-	2 820	3 511	3 135	2 785	2 234	-19.8%
<i>among which:</i>								
Hard coal		-	459	505	456	615	361	-41.2%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	665	642	240	151	-37.1%
Natural gas		-	2 026	2 043	1 774	1 702	1 551	-8.8%
Renewables		-	104	105	71	71	59	-16.9%
<b>Heat production and consumption</b>								
Total heat production	TJ	-	2 498	2 515	2 330	2 107	1 797	-14.7%
<i>among which: in heating plants</i>								
		-	2 498	2 515	2 330	2 107	1 797	-14.7%
Heat consumption		-	2 498	2 515	2 328	2 101	1 794	-14.6%
<i>of which: in industry</i>								
		-	1 086	1 099	1 001	1 338	1 136	-15.1%
<i>in households and services</i>								
		-	1 412	1 416	1 326	763	658	-13.8%
<i>among which: in households</i>								
		-	44	44	32	33	11	-67.3%


## 4.1 Crude oil and feedstocks

 eurostat	UNITED KINGDOM								
	<i>in 1 000 t</i>		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>									
Primary production		132 367	137 099	126 245	116 679	115 944	106 073	-8.5%	
Total imports		47 957	44 891	54 387	53 551	56 968	54 177	-4.9%	
Total exports		84 612	91 797	92 918	86 918	87 144	74 898	-14.1%	
Stock changes		-593	-198	1 098	-614	142	468	229.6%	
Refinery intake		93 928	88 415	88 144	83 343	84 784	84 586	-0.2%	
<b>Imports of Crude Oil by origin</b>									
<i>by region of origin:</i>									
OPEC		7 079	4 145	4 050	3 672	4 490	4 994	11.2%	
Near and Middle East		4 872	1 587	2 365	2 022	2 991	2 751	-8.0%	
Africa		1 105	2 411	2 454	1 526	1 283	1 334	4.0%	
<i>by country of origin:</i>									
Algeria		527	878	564	888	1 027	1 072	4.4%	
Nigeria		538	460	-	116	-	130		
Saudi Arabia		3 173	698	2 053	1 531	2 041	2 668	30.7%	
Kuwait		898	-	-	-	-	-	-	
United Arab Emirates		65	-	-	-	-	-	-	
Norway		28 014	25 716	32 179	27 972	29 493	32 578	10.5%	
<b>Refining capacity</b>									
Capacity at the end of year	<i>1 000 t/year</i>	92 010	88 520	88 820	:	:	:		
<i>among which:</i>									
Cracking and others		42 380	40 820	45 470	:	:	:		
Reforming		14 410	13 080	12 910	:	:	:		




## 4.2 Petroleum products


 eurostat	UNITED KINGDOM						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	93 564	86 734	86 341	82 092	83 998	84 528	0.6%
<i>among which:</i>							
Motor spirit	27 392	25 246	23 470	21 556	22 972	22 653	-1.4%
Kerosene and jet fuel	11 413	10 802	9 562	8 998	8 871	8 798	-0.8%
Naphtha	2 352	2 451	3 099	3 463	3 174	3 516	10.8%
Gas/diesel oil	27 934	25 869	28 298	26 796	28 393	27 579	-2.9%
Residual fuel oil	13 476	12 195	11 621	11 912	10 551	11 517	9.2%
Total imports	11 373	13 896	14 212	16 978	15 269	17 287	13.2%
Total exports	24 332	21 655	20 677	19 088	23 444	23 323	-0.5%
Bunkers	3 080	2 330	2 079	2 218	1 913	1 764	-7.8%
Stock changes	-94	573	-336	-598	1 226	-262	-121.4%
Gross inland consumption	-16 133	-9 516	-8 880	-4 926	-8 862	-8 062	-9.0%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	885	1 167	1 666	1 338	533	532	-0.2%
United Kingdom	-	-	-	-	-	-	-
Norway	1 591	2 175	2 094	564	164	435	165.2%
OPEC	1 886	1 699	3 001	4 378	2 694	3 147	16.8%
Imports by product							
<i>among which:</i>							
Motor spirit	2 019	2 508	2 459	3 618	2 316	2 034	-12.2%
Kerosene and jet fuel	2 791	3 157	4 761	6 320	6 999	7 673	9.6%
Gas/diesel oil	3 467	5 425	3 815	4 098	3 219	3 503	8.8%
Residual fuel oil	791	655	596	1 011	927	1 208	30.3%
Exports by product							
<i>among which:</i>							
Motor spirit	7 959	6 330	4 708	4 453	5 538	5 608	1.3%
Kerosene and jet fuel	1 096	992	686	623	990	1 143	15.5%
Gas/diesel oil	6 199	6 668	6 416	5 287	6 352	5 528	-13.0%
Residual fuel oil	5 834	4 928	5 360	5 441	5 780	6 385	10.5%
<b>Consumption</b>							
Inputs to electricity plants	1 109	671	834	955	670	597	-10.9%
Inputs to heating plants	-	-	694	670	250	157	-37.2%
Non-energy use	10 723	10 734	10 064	8 844	9 588	10 478	9.3%
Final energy consumption	59 963	61 323	60 669	60 624	60 212	61 203	1.6%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	2 992	2 886	2 988	3 510	3 305	3 656	10.6%
Residual fuel oil	1 318	1 314	720	905	1 237	1 512	22.2%

 eurostat	UNITED KINGDOM							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	480	490	391	352	264	247	-6.4%	
Non-ferrous metals	39	38	38	74	80	59	-26.3%	
Chemical industry	464	310	272	316	314	360	14.6%	
Non-met. mineral prod.	224	212	242	268	244	243	-0.4%	
Food, drink, tobacco	393	371	205	257	308	307	-0.3%	
Pulp, paper and print	115	99	41	79	109	118	8.3%	
Engineering & metal	459	426	379	468	536	455	-15.1%	
Other industries	3 493	3 931	3 849	3 958	3 599	4 781	32.8%	
<b>Transport</b>	47 795	49 494	49 746	48 797	49 348	49 960	1.2%	
<i>among which:</i>								
Motor spirit	21 882	22 639	21 654	20 991	20 857	19 963	-4.3%	
Jet fuel	9 207	9 918	10 847	10 279	10 498	10 744	2.3%	
Diesel oil	16 597	16 857	17 181	17 442	17 865	19 099	6.9%	
<b>Services &amp; households etc.</b>	6 100	5 505	5 030	5 469	4 830	4 289	-11.2%	
<i>among which:</i>								
Gas oil	2 576	2 267	2 114	1 826	1 599	947	-40.8%	
Residual fuel oil	497	541	122	101	170	292	71.8%	
<b>Stocks at end of period</b>								
Crude oil and feedstocks	7 823	8 021	6 923	7 537	7 389	6 921	-6.3%	
Petroleum products	7 535	6 962	7 294	7 939	6 839	7 094	3.7%	


## 5. Natural gas

 eurostat	UNITED KINGDOM							
	<i>in TJ (GCV)</i>		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		3 774 202	4 147 772	4 542 870	4 431 339	4 345 336	4 309 812	-0.8%
Total imports		38 095	46 303	93 716	109 673	217 769	310 675	42.7%
Total exports		113 775	303 960	526 833	497 640	542 634	637 337	17.5%
Stock changes		-7 542	25 002	-39 265	-2 380	-26 482	12 571	147.5%
Gross inland consumption		3 690 980	3 915 117	4 070 488	4 040 992	3 993 989	3 995 721	0.0%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		33 748	21 038	40 623	45 841	136 380	258 317	89.4%
<b>Consumption</b>								
Inputs to electricity plants		963 839	1 135 775	1 169 383	1 115 546	1 188 482	1 169 820	-1.6%
Inputs to heat plants		-	94 267	95 021	82 505	79 178	72 173	-8.8%
Consumption of energy branch		273 575	277 103	283 648	329 236	328 536	318 988	-2.9%
Distribution losses		58 514	52 841	73 447	35 118	34 798	20 909	-39.9%
Non-energy use		43 117	46 598	51 415	39 200	38 380	38 380	0.0%
Industry		633 902	636 535	654 217	658 411	595 512	619 772	4.1%
<i>among which:</i>								
Iron&steel industry		72 378	77 839	76 025	75 488	70 279	68 836	-2.1%
Non-ferrous metals		19 915	19 976	20 765	18 781	17 953	18 313	2.0%
Chemical industry		166 990	168 451	174 899	174 629	152 107	162 554	6.9%
Non-met. mineral prod.		52 880	52 319	53 705	49 637	45 533	47 966	5.3%
Food, drink, tobacco		98 168	100 444	109 163	98 788	97 369	99 778	2.5%
Pulp, paper and print		51 268	45 115	40 594	56 560	52 204	56 120	7.5%
Engineering & metal		85 690	89 029	92 469	86 976	83 682	86 893	3.8%
Other industries		60 448	58 284	59 781	70 682	49 900	52 074	4.4%
Transport		-	-	-	-	-	-	-
Services & households etc.		1 704 669	1 672 391	1 723 640	1 771 032	1 716 419	1 756 115	2.3%
<i>among which:</i>								
Households		1 281 222	1 289 038	1 331 672	1 364 987	1 354 939	1 389 546	2.6%
Services		420 016	379 195	387 234	400 202	353 034	361 191	2.3%


## 6.1 Hard coal


 eurostat	UNITED KINGDOM							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	40 046	36 163	30 600	31 513	29 539	27 759	-6.0%	
Total imports	21 244	20 293	23 445	35 542	28 687	31 891	11.2%	
Total exports	971	761	661	549	537	542	0.9%	
Stock changes	1 421	-1 164	4 681	-2 886	351	2 613	644.4%	
Gross inland consumption	62 871	55 445	58 663	64 037	58 490	62 221	6.4%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	6 746	3 016	2 773	2 610	1 566	1 154	-26.3%	
Poland	950	1 299	1 107	1 235	1 597	1 902	19.1%	
CIS	20	172	491	4 353	4 368	5 089	16.5%	
Australia	4 610	5 951	6 102	7 076	5 093	5 664	11.2%	
South Africa	2 464	2 921	4 756	10 259	9 876	12 193	23.5%	
Colombia	3 819	4 136	5 649	6 722	3 547	3 398	-4.2%	
<b>Consumption</b>								
Inputs to electricity plants	48 587	41 178	46 201	50 928	47 653	52 728	10.6%	
Inputs to heat plants	-	649	714	759	988	608	-38.5%	
Consumption of energy branch	5	10	12	10	9	6	-33.3%	
Industry								
<i>among which:</i>								
Iron&steel industry	568	506	458	765	726	882	21.5%	
Non-ferrous metals	208	346	82	219	146	89	-39.0%	
Chemical industry	643	434	83	408	67	54	-19.4%	
Non-met. mineral prod.	763	586	202	504	500	304	-39.2%	
Food, drink, tobacco	288	215	110	217	189	113	-40.2%	
Pulp, paper and print	108	121	54	168	58	35	-39.7%	
Engineering & metal	77	111	54	88	71	44	-38.0%	
Other industries	249	157	102	68	43	35	-18.6%	
Services & households etc.	2 782	2 788	1 989	2 434	1 842	973	-47.2%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	21	21	16	13	13	:		

## 6.2 Coal derivatives and peat

	UNITED KINGDOM						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	6 215	5 870	6 377	5 516	4 559	4 601	0.9%
Patent Fuel	616	635	537	487	430	392	-8.8%
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	47 254	45 425	47 236	41 702	34 376	34 845	1.4%
Blast-furnace gas	72 417	68 404	63 169	53 150	47 268	56 272	19.0%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	3 960	4 305	4 085	3 608	3 058	3 318	8.5%
<i>among which:</i>							
Iron & steel industry	3 449	3 782	3 548	3 219	2 626	3 089	17.6%
Services & households	115	121	145	67	178	99	-44.4%
Patent Fuel	631	572	521	483	413	358	-13.3%
<i>among which:</i>							
Services & households	599	554	496	446	391	341	-12.8%
Lignite and peat	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	20 848	8 586	9 054	6 390	3 085	2 909	-5.7%
Blast-furnace gas	33 998	24 308	23 141	26 119	22 327	18 145	-18.7%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	35 535	38 272	38 146	25 127	24 507	38 292	56.2%
Inputs to heat plants	-	10 288	8 744	8 748	7 107	5 047	-29.0%
Consumption of energy branch	24 386	27 378	28 059	24 127	20 992	21 734	3.5%
Consumption in industry	54 846	32 894	32 195	32 509	25 412	21 054	-17.1%


## 7. Renewable energy sources

		UNITED KINGDOM						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	2 296	2 438	2 599	2 594	2 813	3 105	10.4%
Hydro (excl. pumping)		450	461	437	349	412	278	-32.6%
Wind		75	73	81	83	108	110	2.3%
Solar		7	7	11	14	17	20	22.5%
Geothermal		1	1	1	1	1	1	0.0%
Biomass		1 763	1 897	2 069	2 148	2 276	2 695	18.4%
	<i>among which:</i>							
Wood, wood-waste		836	806	839	776	800	1 034	29.2%
Municipal solid waste		402	406	420	466	508	533	4.9%
Biogas		525	685	810	904	968	1 129	16.6%
Gross inland consumption		2 296	2 438	2 599	2 594	2 813	3 105	10.4%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		972	1 273	1 515	1 587	1 708	2 119	24.1%
	<i>among which:</i>							
Wood, wood-waste		123	266	369	306	329	551	67.5%
Municipal waste		385	383	392	434	471	499	6.1%
Biogas		464	624	754	847	908	1 068	17.7%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	798	631	565	573	585	597	2.0%
	<i>by sector:</i>							
Industry		450	280	210	211	211	223	5.7%
Services & households etc.		349	351	356	362	374	374	-0.1%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		791	624	553	559	568	577	1.5%
	<i>among which:</i>							
Wood, wood-waste		713	540	470	470	471	483	2.6%
Municipal waste		17	22	28	32	37	33	-9.9%
Biogas		61	61	56	57	60	60	0.0%
Geothermal		1	1	1	1	1	1	0.0%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	1	1	2	3	3	0.0%
Hydro with installed capacity < 1 MW		86	81	77	75	35	37	5.7%
Hydro with installed capacity > 1 & <10 MW		536	151	138	135	169	78	-53.8%
Hydro with installed capacity > 10 MW		4 604	5 129	4 871	3 845	4 581	3 113	-32.0%
Wood, Wood-waste		-	783	461	776	870	1 549	78.0%
Municipal waste		1 351	1 083	1 279	1 338	1 368	1 550	13.3%
Biogas		1 566	2 113	2 555	2 870	3 047	3 619	18.8%

		UNITED KINGDOM						03/02
		1998	1999	2000	2001	2002	2003	
<b>Electrical capacities of RES</b>								
	<i>in MW</i>							
Solar photovoltaics (peak)		1	1	2	3	4	6	50.0%
Hydro with installed capacity < 1 MW		21	25	26	27	33	33	0.0%
Hydro with installed capacity > 1 & <10 MW		41	39	40	41	161	170	5.6%
Hydro with installed capacity > 10 MW		1 413	1 413	1 419	1 440	1 396	1 407	0.8%
Wood, Wood-waste		84	157	157	157	166	184	10.8%
Municipal waste		162	161	253	260	279	299	7.2%
Biogas		311	400	510	550	569	720	26.5%
<b>Liquid biofuels</b>								
Production	<i>1000 t</i>	-	-	-	-	-	-	-
<b>Solar Panels</b>								
Solar panel surface	<i>1000 m<sup>2</sup></i>	287	298	312	396	446	583	30.7%

# 1. Energy economy


## Key figures and energy indicators

		BULGARIA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	10 178	8 968	9 834	10 290	10 530	10 091
Net energy imports		10 034	8 875	8 681	8 973	8 896	9 044
Net oil imports		4 767	4 220	4 081	4 240	4 444	4 538
Net gas imports		3 120	2 757	2 742	2 731	2 498	2 356
Gross inland energy consumption		20 086	18 145	18 589	19 336	18 960	19 279
Final energy consumption		9 904	8 798	8 578	8 611	8 695	9 356
Industry		4 675	3 675	3 637	3 635	3 484	3 769
Transport		1 912	1 942	1 817	1 918	2 020	2 283
Services and households etc.		3 318	3 180	3 124	3 058	3 191	3 305
Gross electricity generation	GWh	41 711	38 248	40 924	43 968	42 679	42 533
Final electricity consumption		25 860	23 728	24 132	24 530	24 041	25 043
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	8 925	9 134	9 626	10 019	10 510	10 978
Population	1000 per.	8 283	8 230	8 191	7 929	7 892	7 846
Industry added value	Mio EUR	:	:	:	:	:	:
Total imports (current prices)	Mio EUR	5 655	6 179	7 331	8 415	8 829	10 181
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	2 250.7	1 986.6	1 931.1	1 930.0	1 804.0	1 756.2
Final energy consumption / GDP(95)		1 109.8	963.2	891.2	859.5	827.3	852.3
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	2 425	2 205	2 269	2 439	2 402	2 457
Final energy consumption / capita		1 196	1 069	1 047	1 086	1 102	1 193
Household consumption / capita		290	268	264	254	275	289
Electricity consumption / capita	kWh/cap.	4 194	4 047	4 072	4 398	4 268	4 309
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	49.8	48.9	46.5	46.2	46.7	46.6
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	49.3	48.5	46.1	44.5	45.9	48.5
Efficiency of thermal power stations		41.2	42.9	41.4	41.0	41.0	41.7



## 2. Energy balance

### Principal aggregates by product

 eurostat	BULGARIA						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	10 178	8 968	9 834	10 290	10 530	10 091	-4.2%
among which:							
Hard coal	48	62	60	44	38	21	-45.9%
Lignite and peat	5 037	4 123	4 250	4 454	4 390	4 625	5.3%
Crude oil	33	40	42	34	37	30	-19.9%
Natural Gas	23	21	12	18	16	13	-20.6%
Nuclear heat	4 359	4 079	4 689	5 044	5 216	4 457	-14.5%
Hydro-electricity	266	237	230	149	189	255	35.0%
Biomass	412	406	550	547	643	691	7.4%
<b>Imports</b>							
Total	11 682	10 894	11 281	11 742	11 249	11 268	0.2%
among which:							
Hard coal	2 330	1 927	2 245	2 458	2 419	2 455	1.5%
Crude oil and feedstocks	5 544	5 651	5 346	5 650	5 292	5 189	-1.9%
Petroleum products	499	255	728	663	758	982	29.5%
Natural Gas	3 120	2 757	2 742	2 731	2 498	2 356	-5.7%
Electricity	48	144	83	94	175	110	-37.1%
<b>Exports</b>							
Total	1 648	2 018	2 600	2 769	2 353	2 223	-5.5%
among which:							
Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	1 276	1 686	1 993	2 073	1 606	1 633	1.7%
Natural gas	-	-	-	-	-	-	-
Electricity	362	312	480	689	717	582	-18.8%
<b>Gross inland consumption</b>							
Total	20 086	18 145	18 589	19 336	18 960	19 279	1.7%
among which:							
Solid fuels	7 463	6 444	6 417	7 246	6 658	7 329	10.1%
Crude oil and petrol. prod.	4 771	4 460	4 160	4 210	4 387	4 500	2.6%
Natural gas	3 129	2 686	2 932	2 739	2 404	2 501	4.0%
Nuclear Energy	4 359	4 079	4 689	5 044	5 216	4 457	-14.5%
Renewables	677	635	776	692	828	936	13.1%
<b>Transformation input</b>							
Total	19 419	18 423	18 593	19 753	19 017	19 108	0.5%
among which:							
Crude oil and feedstocks	5 572	5 719	5 406	5 660	5 416	5 305	-2.0%
Petroleum products	344	234	202	217	219	215	-1.5%
Hard coal	2 204	1 878	2 091	2 229	2 069	2 270	9.8%
Lignite and peat	5 256	4 678	4 482	4 960	4 585	5 244	14.4%
Renewables	-	-	-	-	-	-	-
<b>Transformation output</b>							
Total	11 835	11 596	11 297	11 679	11 140	11 389	2.2%
among which:							
Electricity	3 301	3 032	3 265	3 594	3 437	3 379	-1.7%
Heat	1 401	1 310	1 209	1 242	1 175	1 287	9.6%

**Final energy consumption**

Total	9 904	8 798	8 578	8 611	8 695	9 356	7.6%
<i>among which:</i> Solid fuels	1 241	947	860	938	1 031	1 132	9.9%
Petroleum products	3 381	3 282	2 980	3 071	3 139	3 382	7.8%
Natural Gas	1 327	880	937	779	741	814	9.8%
Renewables	409	421	547	540	639	682	6.6%
Electricity	2 224	2 040	2 075	2 109	2 067	2 153	4.2%

**Final energy consumption by sector**
**Industry**

Total	4 675	3 675	3 637	3 635	3 484	3 769	8.2%
<i>among which:</i> Solid fuels	699	562	565	751	699	764	9.3%
Petroleum Products	1 147	978	827	763	789	806	2.1%
Natural Gas	1 306	859	912	747	706	767	8.5%
Renewables	25	23	20	43	44	58	33.3%
Electricity	919	728	738	777	729	791	8.5%


**Transport**

Total	1 912	1 942	1 817	1 918	2 020	2 283	13.0%
<i>among which:</i> Motor spirit	842	827	693	597	642	617	-3.9%
Diesel oil	811	853	768	849	859	1 093	27.3%
Jet fuel	150	120	101	148	150	182	21.2%
Electricity	43	46	39	38	39	37	-2.9%


**Services&households**

Total	3 318	3 180	3 124	3 058	3 191	3 305	3.6%
<i>among which:</i> Solid fuels	543	386	295	187	331	368	11.0%
Gas oil	325	342	325	384	326	282	-13.6%
Natural Gas	22	22	25	33	35	48	36.2%
Renewables	383	399	527	497	595	623	4.7%
Electricity	1 262	1 266	1 298	1 295	1 299	1 325	2.0%
Heat	743	701	605	618	561	610	8.7%


### 3.1 Electricity balance

 eurostat	BULGARIA							
	in GWh		1998	1999	2000	2001	2002	2003
<b>Generation</b>								
Total gross generation		41 711	38 248	40 924	43 968	42 679	42 533	-0.3%
<i>among which:</i>								
Hydro		3 325	2 982	2 951	2 171	2 704	3 234	19.6%
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Nuclear		16 899	15 814	18 178	19 553	20 222	17 280	-14.5%
Conventional thermal		21 487	19 452	19 795	22 244	19 753	22 019	11.5%
<i>of which:</i>								
Hard coal		3 663	3 074	2 972	4 446	3 863	4 525	17.1%
Lignite and peat		14 636	13 205	13 969	15 051	13 319	14 712	10.5%
Petroleum products		905	927	661	579	830	789	-4.9%
Natural gas		2 013	2 010	1 912	1 908	1 539	1 762	14.5%
Derived gases		268	207	266	260	191	225	17.8%
Biomass		2	29	15	-	-	-	-
Industrial wastes		-	-	-	-	11	6	-45.5%
Total net generation		37 324	34 322	36 884	39 617	38 598	38 407	-0.5%
<b>Imports and exports</b>								
Total imports		564	1 670	964	1 092	2 040	1 283	-37.1%
Total exports		4 211	3 627	5 584	8 017	8 335	6 772	-18.8%
<b>Consumption and losses</b>								
Consumption of the energy branch		6 381	5 712	5 551	5 945	5 652	5 701	0.9%
<i>of which:</i>								
Consumption for pumped-storage		65	123	205	214	205	209	2.0%
Network losses		5 595	6 469	6 290	6 126	6 178	6 026	-2.5%
Final energy consumption		25 860	23 728	24 132	24 530	24 041	25 043	4.2%
<i>of which:</i>								
Industry		10 688	8 465	8 584	9 035	8 479	9 197	8.5%
<i>among which:</i>								
Iron&steel industry		1 933	1 369	1 702	1 862	1 644	1 959	19.2%
Non-ferrous metals		784	718	753	782	608	753	23.8%
Chemical industry		2 432	1 865	1 821	1 843	1 583	1 536	-3.0%
Non-met. mineral prod.		736	649	624	631	606	638	5.3%
Food, drink, tobacco		855	898	815	893	854	869	1.8%
Pulp, paper and print		315	255	262	240	392	464	18.4%
Engineering & metal		1 299	832	814	837	929	903	-2.8%
Other industries		839	620	527	582	521	691	32.6%
Transport		499	538	453	437	449	436	-2.9%
Services & households etc.		14 673	14 725	15 095	15 058	15 113	15 410	2.0%
<i>among which:</i>								
Households		10 540	10 115	9 858	9 751	9 306	9 311	0.1%


## 3.2 Electrical capacity, fuel inputs and heat


		BULGARIA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	11 678	11 458	12 017	13 854	10 972	11 997	9.3%
<i>by source:</i>								
Conventional thermal		5 873	5 564	5 673	7 458	6 878	6 759	-1.7%
<i>of which:</i>								
Steam		5 873	5 564	5 673	7 458	6 878	6 759	-1.7%
Gas turbine		-	-	-	-	-	-	-
Combined cycle		-	-	-	-	-	-	-
Internal combustion		-	-	-	-	-	-	-
Nuclear		3 446	3 500	3 480	3 532	2 146	2 723	26.9%
Hydro		2 359	2 394	2 864	2 864	1 948	2 515	29.1%
<i>among which:</i>								
Pumped storage		403	432	864	864	864	864	0.0%
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		10 782	11 066	10 488	12 280	10 513	11 657	10.9%
Autoproducers		896	392	545	415	459	340	-25.9%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	6 946	6 129	6 292	6 936	6 332	6 905	9.0%
<i>among which:</i>								
Hard coal		1 266	1 028	1 057	1 408	1 288	1 440	11.8%
Lignite and peat		4 345	3 629	3 904	4 201	3 781	4 183	10.6%
Petroleum products		267	231	160	179	187	175	-6.4%
Natural gas		936	920	824	772	718	742	3.3%
Renewables		-	-	-	-	-	-	-
Heating plants		438	326	324	308	279	312	11.8%
<i>among which:</i>								
Hard coal		11	-	-	-	-	-	-
Lignite and peat		1	2	1	1	0	-	-
Petroleum products		77	3	42	37	32	40	27.4%
Natural gas		348	321	281	270	247	271	10.0%
Renewables		-	-	-	-	-	-	-
<b>Heat production and consumption</b>								
Total heat production	TJ	1 401	1 310	1 209	1 242	1 175	1 287	9.6%
<i>among which: in heating plants</i>								
		381	347	294	295	260	287	10.7%
Heat consumption		1 065	954	877	935	860	912	6.0%
<i>of which: in industry</i>								
		322	253	272	317	299	302	1.0%
<i>in households and services</i>								
		743	701	605	618	561	610	8.7%
<i>among which: in households</i>								
		591	584	508	489	440	473	7.5%

## 4.1 Crude oil and feedstocks


 eurostat	BULGARIA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		33	40	42	34	37	30	-18.9%
Total imports		5 549	5 613	5 306	5 628	5 280	5 237	-0.8%
Total exports		-	-	-	-	-	-	-
Stock changes		18	40	29	-74	-19	-32	-68.4%
Refinery intake		5 578	5 681	5 365	5 638	5 402	5 351	-0.9%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products

 eurostat	BULGARIA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	5 565	5 673	5 181	5 411	5 032	5 175	2.8%
<i>among which:</i>							
Motor spirit	925	1 065	1 017	1 151	1 030	967	-6.1%
Kerosene and jet fuel	165	159	116	154	123	145	17.9%
Naphtha	624	503	455	469	432	663	53.5%
Gas/diesel oil	1 957	2 055	1 934	1 978	1 817	1 878	3.4%
Residual fuel oil	1 327	1 269	1 127	1 095	1 203	718	-40.3%
Total imports	491	251	741	676	797	1 023	28.4%
Total exports	1 259	1 662	1 981	2 055	1 608	1 623	0.9%
Bunkers	70	8	64	96	105	137	30.5%
Stock changes	26	166	68	101	36	105	191.7%
Gross inland consumption	-812	-1 253	-1 236	-1 374	-880	-632	28.2%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-
Imports by product							
<i>among which:</i>							
Motor spirit	75	45	197	112	26	63	142.3%
Kerosene and jet fuel	1	-	28	53	52	50	-3.8%
Gas/diesel oil	313	156	184	101	114	183	60.5%
Residual fuel oil	31	16	21	57	79	131	65.8%
Exports by product							
<i>among which:</i>							
Motor spirit	262	345	559	717	447	443	-0.9%
Kerosene and jet fuel	2	37	65	65	32	20	-37.5%
Gas/diesel oil	870	1 029	850	727	522	512	-1.9%
Residual fuel oil	125	194	456	518	584	503	-13.9%
<b>Consumption</b>							
Inputs to electricity plants	293	254	177	203	206	229	11.2%
Inputs to heating plants	81	3	44	39	33	42	27.3%
Non-energy use	795	662	619	663	384	514	33.9%
Final energy consumption	3 406	3 258	2 964	3 054	3 143	3 420	8.8%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	90	105	105	87	81	81	0.0%
Residual fuel oil	899	725	501	429	409	243	-40.6%


 eurostat	BULGARIA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>							
<i>among which by sector:</i>							
Iron&steel industry	35	25	12	3	-	-	-
Non-ferrous metals	58	53	42	44	40	37	-7.5%
Chemical industry	477	394	281	307	275	348	26.5%
Non-met. mineral prod.	183	144	173	172	280	285	1.8%
Food, drink, tobacco	163	141	144	112	89	78	-12.4%
Pulp, paper and print	50	40	39	21	34	30	-11.8%
Engineering & metal	67	45	39	26	26	22	-15.4%
Other industries	99	82	77	70	72	79	9.7%
<b>Transport</b>	1 810	1 836	1 715	1 813	1 908	2 168	13.6%
<i>among which:</i>							
Motor spirit	801	787	659	568	611	587	-3.9%
Jet fuel	146	117	98	144	146	177	21.2%
Diesel oil	803	844	760	840	850	1 082	27.3%
<b>Services &amp; households etc.</b>	363	405	372	424	364	327	-10.2%
<i>among which:</i>							
Gas oil	322	339	322	380	323	279	-13.6%
Residual fuel oil	33	53	37	26	24	25	4.2%
<b>Stocks at end of period</b>							
Crude oil and feedstocks	197	157	128	202	221	253	14.5%
Petroleum products	1 007	841	753	652	616	511	-17.0%

## 5. Natural gas


 eurostat	BULGARIA							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		1 088	990	573	853	752	597	-20.6%
Total imports		145 145	128 240	127 563	127 044	116 222	109 593	-5.7%
Total exports		-	-	-	-	-	-	-
Stock changes		-668	-4 270	8 267	-482	-5 132	6 136	219.6%
Gross inland consumption		145 565	124 960	136 403	127 415	111 842	116 326	4.0%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		43 564	42 795	38 327	35 891	33 401	34 497	3.3%
Inputs to heat plants		16 178	14 950	13 065	12 555	11 477	12 621	10.0%
Consumption of energy branch		5 975	7 361	11 243	9 986	9 520	7 334	-23.0%
Distribution losses		1 099	2 024	1 767	4 169	3 292	3 764	14.3%
Non-energy use		15 851	17 024	28 268	27 978	18 914	19 656	3.9%
Industry		60 737	39 944	42 424	34 729	32 860	35 663	8.5%
<i>among which:</i>								
Iron&steel industry		14 411	12 462	12 941	11 725	10 991	13 871	26.2%
Non-ferrous metals		410	306	417	408	310	349	12.6%
Chemical industry		23 642	9 470	12 433	8 534	7 333	6 283	-14.3%
Non-met. mineral prod.		15 046	11 334	8 958	6 939	7 203	5 862	-18.6%
Food, drink, tobacco		1 898	2 197	2 143	2 375	2 891	3 317	14.7%
Pulp, paper and print		2 242	1 459	1 871	1 484	979	2 202	124.9%
Engineering & metal		1 804	1 642	1 398	1 521	1 125	1 194	6.1%
Other industries		413	440	517	519	505	560	10.9%
Transport		-	-	-	-	-	-	-
Services & households etc.		1 002	1 016	1 179	1 521	1 631	2 221	36.2%
<i>among which:</i>								
Households		-	-	9	37	59	144	144.1%
Services		972	750	570	816	874	1 304	49.2%




## 6.1 Hard coal


 eurostat	BULGARIA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	92	122	118	110	94	51	-45.7%	
Total imports	3 549	2 781	3 433	3 839	3 854	3 930	2.0%	
Total exports	-	-	-	-	-	-	-	
Stock changes	-52	308	-172	76	-347	187	153.9%	
Gross inland consumption	3 589	3 211	3 379	4 025	3 601	4 168	15.7%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	
Poland	-	-	-	-	-	-	-	
CIS	-	-	-	-	-	-	-	
Australia	-	-	-	-	-	-	-	
South Africa	-	-	-	-	-	-	-	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	2 100	1 745	1 747	2 371	2 147	2 444	13.8%	
Inputs to heat plants	20	-	-	-	-	-	-	
Consumption of energy branch	4	4	2	1	1	-	-	
Industry								
<i>among which:</i>								
Iron&steel industry	1	18	3	51	30	38	26.7%	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	109	106	106	104	29	44	51.7%	
Non-met. mineral prod.	59	103	159	262	174	246	41.4%	
Food, drink, tobacco	30	52	41	37	45	31	-31.1%	
Pulp, paper and print	-	-	-	-	83	32	-61.4%	
Engineering & metal	2	-	1	-	-	-	-	
Other industries	38	6	1	2	5	1	-80.0%	
Services & households etc.	3	2	1	2	45	172	282.2%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	BULGARIA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	868	749	898	797	761	846	11.2%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	30 019	25 176	26 314	26 501	25 924	27 248	5.1%
Brown coal briquettes	1 152	1 261	1 124	1 045	1 285	1 303	1.4%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	6 813	6 716	8 033	5 934	5 966	6 577	10.2%
Blast-furnace gas	10 561	10 681	11 280	9 134	7 734	9 636	24.6%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	731	522	534	655	638	730	14.4%
<i>among which:</i>							
Iron & steel industry	566	375	365	477	496	599	20.8%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	385	372	240	167	272	229	-15.8%
<i>among which:</i>							
Industry	56	38	27	21	62	32	-48.4%
Services & households	329	334	213	146	210	197	-6.2%
Brown coal briquettes	1 024	699	550	345	589	561	-4.8%
<i>among which:</i>							
Industry	7	8	6	7	8	7	-12.5%
Services & households	1 017	691	544	338	581	554	-4.6%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	2 266	2 427	2 999	2 139	2 217	2 453	10.6%
Blast-furnace gas	8 553	9 088	9 581	7 814	6 741	8 373	24.2%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	2 876	2 175	2 586	1 913	1 476	1 702	15.3%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	3 679	3 708	4 147	3 202	3 267	3 685	12.8%
Consumption in industry	10 819	11 515	12 580	9 953	8 958	10 826	20.9%


## 7. Renewable energy sources

	BULGARIA							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	678	642	780	696	832	946	13.7%	
Hydro (excl. pumping)	266	237	230	149	189	255	35.0%	
Wind	-	-	-	-	-	-	-	
Solar	-	-	-	-	-	-	-	
Geothermal	-	-	-	-	-	-	-	
Biomass	412	406	550	547	643	691	7.4%	
<i>among which:</i>								
Wood, wood-waste	412	406	550	547	643	691	7.4%	
Municipal solid waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	
Gross inland consumption	677	635	776	692	828	936	13.1%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	-	-	-	-	-	-	-	
Biomass	-	-	-	-	-	-	-	
<i>among which:</i>								
Wood, wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	409	421	547	540	639	682	6.6%	
<i>by sector:</i>								
Industry	25	23	20	43	44	58	33.3%	
Services & households etc.	383	399	527	497	595	623	4.7%	
Transport	-	-	-	-	-	-	-	
<i>by source:</i>								
Biomass	409	421	547	540	639	682	6.6%	
<i>among which:</i>								
Wood, wood-waste	409	421	547	540	639	682	6.6%	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	
Geothermal	-	-	-	-	-	-	-	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	-	-	-	-	-	-	-	
Hydro with installed capacity < 1 MW	:	:	40	6	5	6	20.0%	
Hydro with installed capacity > 1 & <10 MW	:	:	240	19	12	37	208.3%	
Hydro with installed capacity > 10 MW	:	:	2 393	1 712	2 177	2 919	34.1%	
Wood, Wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	

	BULGARIA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	:	:	8	8	8	8	0.0%
Hydro with installed capacity > 1 & <10 MW	:	:	125	125	125	125	0.0%
Hydro with installed capacity > 10 MW	:	:	1 867	1 867	1 867	1 867	0.0%
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		HRVATSKA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	3 983	3 570	3 562	3 730	3 689	3 727
Net energy imports		3 991	4 354	4 174	4 166	4 967	4 985
Net oil imports		2 611	2 992	2 441	2 763	3 484	3 347
Net gas imports		902	906	905	684	590	651
Gross inland energy consumption		7 973	8 180	7 526	7 998	8 247	8 828
Final energy consumption		5 195	5 354	5 340	5 460	5 591	5 948
Industry		1 438	1 370	1 390	1 439	1 392	1 441
Transport		1 458	1 534	1 530	1 546	1 642	1 768
Services and households etc.		2 300	2 451	2 419	2 475	2 557	2 739
Gross electricity generation	GWh	10 898	12 241	10 702	12 175	12 286	12 670
Final electricity consumption		11 064	11 678	11 796	11 958	12 654	12 922
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	:	:	:	:	:	:
Population	1000 per.	:	:	:	:	:	:
Industry added value	Mio EUR	:	:	:	:	:	:
Total imports (current prices)	Mio EUR	:	:	:	:	:	:
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	:	:	:	:	:	:
Final energy consumption / GDP(95)		:	:	:	:	:	:
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		:	:	:	:	:	:
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	:	:	:	:	:	:
Final energy consumption / capita		:	:	:	:	:	:
Household consumption / capita		:	:	:	:	:	:
Electricity consumption / capita	kWh/cap.	:	:	:	:	:	:
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	49.9	53.1	55.3	51.9	60.1	56.3
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	65.2	65.5	71.0	68.3	67.8	67.4
Efficiency of thermal power stations		48.8	50.1	49.9	48.1	47.5	49.0

## 2. Energy balance

### Principal aggregates by product

 eurostat	HRVATSKA						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	3 983	3 570	3 562	3 730	3 689	3 727	1.0%
among which:							
Hard coal	31	9	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	1 825	1 394	1 328	1 232	1 200	1 138	-5.1%
Natural Gas	1 282	1 267	1 355	1 642	1 732	1 789	3.3%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	469	567	505	563	461	419	-9.1%
Biomass	376	333	374	292	296	381	28.8%
<b>Imports</b>							
Total	5 859	6 391	5 970	6 096	6 962	7 079	1.7%
among which:							
Hard coal	142	211	444	402	542	606	11.7%
Crude oil and feedstocks	3 779	4 560	4 001	4 041	4 319	4 355	0.8%
Petroleum products	662	419	202	401	828	756	-8.7%
Natural Gas	902	906	905	885	886	930	5.0%
Electricity	325	254	377	322	338	385	14.1%
<b>Exports</b>							
Total	1 868	2 037	1 797	1 930	1 995	2 095	5.0%
among which:							
Crude oil and feedstocks	40	131	35	-	-	-	-
Petroleum products	1 790	1 855	1 727	1 679	1 663	1 764	6.1%
Natural gas	-	-	-	201	296	279	-5.6%
Electricity	37	51	33	51	35	50	44.3%
<b>Gross inland consumption</b>							
Total	7 973	8 180	7 526	7 998	8 247	8 828	7.1%
among which:							
Solid fuels	231	209	438	481	584	654	12.0%
Crude oil and petrol. prod.	4 455	4 679	3 655	4 075	4 233	4 683	10.6%
Natural gas	2 153	2 190	2 209	2 315	2 370	2 356	-0.6%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	845	900	879	855	757	800	5.7%
<b>Transformation input</b>							
Total	6 777	7 122	6 659	6 598	6 985	7 404	6.0%
among which:							
Crude oil and feedstocks	5 235	5 563	5 316	5 022	5 189	5 465	5.3%
Petroleum products	945	983	446	566	548	775	41.4%
Hard coal	139	128	356	392	489	529	8.1%
Lignite and peat	2	2	1	4	3	3	-22.3%
Renewables	2	2	0	-	-	-	-
<b>Transformation output</b>							
Total	5 924	6 327	5 973	5 775	6 036	6 415	6.3%
among which:							
Electricity	467	486	414	481	589	665	12.8%
Heat	299	311	274	304	289	313	8.4%

**Final energy consumption**

Total	5 195	5 354	5 340	5 460	5 591	5 948	6.4%
<i>among which:</i> Solid fuels	88	76	75	85	92	118	28.9%
Petroleum products	2 478	2 616	2 656	2 703	2 820	2 943	4.4%
Natural Gas	1 068	1 082	1 001	1 104	1 051	1 130	7.5%
Renewables	373	331	373	292	296	381	28.8%
Electricity	951	1 004	1 014	1 028	1 088	1 111	2.1%

**Final energy consumption by sector**
**Industry**

Total	1 438	1 370	1 390	1 439	1 392	1 441	3.5%
<i>among which:</i> Solid fuels	72	61	60	77	80	103	28.7%
Petroleum Products	440	416	451	470	456	440	-3.6%
Natural Gas	519	507	503	517	482	491	1.8%
Renewables	69	53	53	47	48	60	23.7%
Electricity	263	259	261	266	268	294	9.4%


**Transport**

Total	1 458	1 534	1 530	1 546	1 642	1 768	7.7%
<i>among which:</i> Motor spirit	758	800	804	772	781	778	-0.4%
Diesel oil	577	614	617	662	747	877	17.5%
Jet fuel	90	87	74	74	71	70	-1.4%
Electricity	18	20	23	21	22	23	2.3%

**Services&households**


Total	2 300	2 451	2 419	2 475	2 557	2 739	7.1%
<i>among which:</i> Solid fuels	16	15	14	8	12	15	29.9%
Gas oil	501	558	595	608	625	641	2.4%
Natural Gas	549	575	498	587	569	640	12.3%
Renewables	304	278	320	245	248	321	29.8%
Electricity	671	725	730	740	797	795	-0.3%
Heat	156	165	155	180	180	202	12.2%

### 3.1 Electricity balance


 eurostat	HRVATSKA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	10 898	12 241	10 702	12 175	12 286	12 670	3.1%
<i>among which:</i>							
Hydro	5 466	6 592	5 892	6 585	5 432	4 936	-9.1%
Wind	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	5 432	5 649	4 810	5 590	6 854	7 734	12.8%
<i>of which:</i>							
Hard coal	527	508	1 546	1 625	2 096	2 393	14.2%
Lignite and peat	11	8	5	13	13	10	-23.1%
Petroleum products	3 547	3 896	1 687	2 133	2 218	3 158	42.4%
Natural gas	1 342	1 235	1 571	1 819	2 527	2 173	-14.0%
Derived gases	-	-	-	-	-	-	-
Biomass	5	2	1	-	-	-	-
Industrial wastes	-	-	-	-	-	-	-
Total net generation	10 444	11 787	10 270	11 734	11 750	12 115	3.1%
<b>Imports and exports</b>							
Total imports	3 782	2 956	4 386	3 744	3 927	4 479	14.1%
Total exports	428	595	386	588	406	586	44.3%
<b>Consumption and losses</b>							
Consumption of the energy branch	866	863	852	874	1 009	1 038	2.9%
<i>of which:</i>							
Consumption for pumped-storage	4	1	8	16	28	26	-7.1%
Network losses	2 314	2 059	2 036	2 461	2 077	2 543	22.4%
Final energy consumption	11 064	11 678	11 796	11 958	12 654	12 922	2.1%
<i>of which:</i>							
Industry	3 054	3 007	3 038	3 098	3 121	3 414	9.4%
<i>among which:</i>							
Iron&steel industry	233	156	216	148	122	137	12.3%
Non-ferrous metals	68	71	66	76	92	80	-13.0%
Chemical industry	508	535	530	504	494	528	6.9%
Non-met. mineral prod.	519	555	564	607	621	698	12.4%
Food, drink, tobacco	422	428	413	434	454	527	16.1%
Pulp, paper and print	242	249	280	291	307	321	4.6%
Engineering & metal	304	299	295	338	356	379	6.5%
Other industries	532	503	472	483	470	543	15.5%
Transport	205	238	270	250	261	267	2.3%
Services & households etc.	7 805	8 433	8 488	8 610	9 272	9 241	-0.3%
<i>among which:</i>							
Households	5 267	5 742	5 729	5 559	5 954	5 694	-4.4%




## 3.2 Electrical capacity, fuel inputs and heat


		HRVATSKA							
		1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>									
Total installed capacity	MW	:	3 754	3 754	3 754	3 931	3 919	-0.3%	
<i>by source:</i>									
Conventional thermal		:	1 675	1 675	1 675	1 865	1 843	-1.2%	
<i>of which:</i>									
Steam		:	1 401	1 401	1 401	1 409	1 387	-1.6%	
Gas turbine		:	210	210	210	196	196	0.0%	
Combined cycle		:	6	6	6	208	208	0.0%	
Internal combustion		:	58	58	58	52	52	0.0%	
Nuclear		:	-	-	-	-	-	-	
Hydro		:	2 079	2 079	2 079	2 066	2 076	0.5%	
<i>among which:</i>									
Pumped storage		:	291	291	291	291	293	0.7%	
Wind		:	-	-	-	-	-	-	
Geothermal		:	-	-	-	-	-	-	
Other		:	-	-	-	-	-	-	
<i>by producer type:</i>									
Public system		:	3 504	3 504	3 504	3 681	3 690	0.2%	
Autoproducers		:	250	250	250	250	229	-8.4%	
<b>Fuel consumption in electricity and heat production</b>									
Conventional thermal power plants	1 000 toe		1 469	1 447	1 248	1 465	1 688	1 827	8.2%
<i>among which:</i>									
Hard coal			139	128	356	392	489	529	8.1%
Lignite and peat			2	2	1	4	3	3	-22.3%
Petroleum products			890	918	395	513	495	720	45.5%
Natural gas			436	398	496	556	701	575	-17.9%
Renewables			2	2	0	-	-	-	-
Heating plants			59	97	83	98	94	98	4.1%
<i>among which:</i>									
Hard coal			-	-	-	-	-	-	-
Lignite and peat			-	-	-	-	-	-	-
Petroleum products			41	51	39	40	38	40	5.0%
Natural gas			18	46	43	57	55	57	3.6%
Renewables			-	-	-	-	-	-	-
<b>Heat production and consumption</b>									
Total heat production	TJ		299	311	274	304	289	313	8.4%
<i>among which: in heating plants</i>			49	72	65	80	76	83	9.4%
Heat consumption			228	236	213	239	232	254	9.2%
<i>of which: in industry</i>			72	71	58	59	53	52	-1.2%
<i>in households and services</i>			156	165	155	180	180	202	12.2%
<i>among which: in households</i>			135	145	129	151	147	161	9.7%

## 4.1 Crude oil and feedstocks


 eurostat	in 1 000 t	HRVATSKA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		1 815	1 385	1 313	1 217	1 185	1 125	-5.1%
Total imports		3 759	4 529	3 954	3 991	4 265	4 302	0.9%
Total exports		40	130	35	-	-	-	-
Stock changes		-49	171	-68	-34	-156	138	188.5%
Refinery intake		5 207	5 526	5 254	4 960	5 124	5 399	5.4%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	HRVATSKA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	5 121	5 481	5 214	4 919	5 080	5 358	5.5%	
<i>among which:</i>								
Motor spirit	1 158	1 209	1 330	1 210	1 209	1 261	4.3%	
Kerosene and jet fuel	90	71	89	75	69	76	10.1%	
Naphtha	171	133	103	166	169	165	-2.4%	
Gas/diesel oil	1 522	1 671	1 666	1 650	1 640	1 873	14.2%	
Residual fuel oil	1 395	1 593	1 111	1 021	1 062	1 036	-2.4%	
Total imports	696	420	209	409	844	773	-8.4%	
Total exports	1 770	1 817	1 703	1 641	1 626	1 726	6.2%	
Bunkers	26	22	18	29	24	22	-8.3%	
Stock changes	110	138	-24	141	-274	85	131.0%	
Gross inland consumption	-990	-1 281	-1 536	-1 120	-1 080	-890	17.6%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	-	-	-	-	-	-	-	
United Kingdom	-	-	-	-	-	-	-	
Norway	-	-	-	-	-	-	-	
OPEC	-	-	-	-	-	-	-	
Imports by product								
<i>among which:</i>								
Motor spirit	70	57	9	41	77	89	15.6%	
Kerosene and jet fuel	30	54	36	13	14	3	-78.6%	
Gas/diesel oil	208	215	68	165	321	234	-27.1%	
Residual fuel oil	226	43	47	137	331	326	-1.5%	
Exports by product								
<i>among which:</i>								
Motor spirit	456	533	526	555	468	631	34.8%	
Kerosene and jet fuel	36	43	43	20	8	13	62.5%	
Gas/diesel oil	519	613	357	439	401	454	13.2%	
Residual fuel oil	201	61	193	72	85	4	-95.3%	
<b>Consumption</b>								
Inputs to electricity plants	931	959	413	537	518	753	45.4%	
Inputs to heating plants	42	53	41	42	40	42	5.0%	
Non-energy use	174	245	229	211	248	327	31.9%	
Final energy consumption	2 434	2 570	2 610	2 658	2 773	2 891	4.3%	
Industry	453	429	465	484	469	449	-4.3%	
<i>among which by product:</i>								
Gas/diesel oil	129	119	132	131	119	145	21.8%	
Residual fuel oil	275	263	284	309	309	268	-13.3%	

 eurostat	HRVATSKA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>							
<i>among which by sector:</i>							
Iron&steel industry	8	4	4	4	2	2	0.0%
Non-ferrous metals	3	2	3	3	4	5	25.0%
Chemical industry	117	63	93	99	74	81	9.5%
Non-met. mineral prod.	109	151	184	196	194	151	-22.2%
Food, drink, tobacco	70	77	58	51	59	51	-13.6%
Pulp, paper and print	5	5	3	3	4	6	50.0%
Engineering & metal	12	10	11	9	11	9	-18.2%
Other industries	96	88	83	85	86	107	24.4%
<b>Transport</b>	1 394	1 465	1 459	1 477	1 571	1 696	8.0%
<i>among which:</i>							
Motor spirit	721	761	765	735	743	740	-0.4%
Jet fuel	88	85	72	72	69	68	-1.4%
Diesel oil	571	608	611	655	739	868	17.5%
<b>Services &amp; households etc.</b>	587	676	686	697	733	746	1.8%
<i>among which:</i>							
Gas oil	496	552	589	602	619	634	2.4%
Residual fuel oil	19	49	26	21	40	36	-10.0%
<b>Stocks at end of period</b>							
Crude oil and feedstocks	444	493	271	344	500	362	-27.6%
Petroleum products	-	-	-	-	-	-	-


## 5. Natural gas

 eurostat	HRVATSKA						
	in TJ (GCV)						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>							
Primary production	59 660	58 919	63 023	76 395	80 572	83 205	3.3%
Total imports	41 952	42 142	42 104	41 162	41 207	43 274	5.0%
Total exports	-	-	-	9 329	13 764	12 996	-5.6%
Stock changes	-1 440	809	-2 345	-528	2 253	-3 876	-272.0%
Gross inland consumption	100 172	101 870	102 782	107 700	110 268	109 607	-0.6%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
CIS	41 952	42 142	42 104	41 162	41 207	43 274	5.0%
Algeria	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
<b>Consumption</b>							
Inputs to electricity plants	20 292	18 494	23 081	25 882	32 590	26 760	-17.9%
Inputs to heat plants	836	2 117	2 014	2 664	2 554	2 645	3.6%
Consumption of energy branch	8 265	7 102	7 661	7 129	6 718	6 254	-6.9%
Distribution losses	3 914	2 974	2 698	3 705	4 102	3 819	-6.9%
Non-energy use	17 480	20 854	20 782	16 982	15 398	17 552	14.0%
Industry	24 130	23 584	23 393	24 050	22 416	22 827	1.8%
<i>among which:</i>							
Iron&steel industry	1 330	840	851	855	490	669	36.5%
Non-ferrous metals	171	148	182	171	122	49	-59.8%
Chemical industry	4 560	5 415	5 438	4 727	3 830	4 636	21.0%
Non-met. mineral prod.	7 981	7 676	8 086	8 930	8 402	7 706	-8.3%
Food, drink, tobacco	5 548	5 001	4 207	4 849	5 054	5 024	-0.6%
Pulp, paper and print	1 710	1 999	1 957	2 018	2 158	2 109	-2.3%
Engineering & metal	581	707	715	638	543	726	33.7%
Other industries	752	331	345	342	282	342	21.3%
Transport	-	-	-	-	-	-	-
Services & households etc.	25 555	26 745	23 153	27 288	26 490	29 750	12.3%
<i>among which:</i>							
Households	19 285	21 630	18 871	21 337	20 851	24 058	15.4%
Services	5 548	4 632	3 731	5 054	4 716	4 936	4.7%


## 6.1 Hard coal

 eurostat	HRVATSKA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	51	15	-	-	-	-	-	-
Total imports	230	342	711	643	879	1 035	17.7%	
Total exports	-	-	-	-	-	-	-	
Stock changes	12	-91	-80	57	-7	2	128.6%	
Gross inland consumption	293	266	631	700	872	1 037	18.9%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants	229	211	570	627	794	904	13.9%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	63	55	53	69	78	126	61.5%	
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	-	-	-	-	-	-	-	
Non-met. mineral prod.	60	55	53	69	78	126	61.5%	
Food, drink, tobacco	3	-	-	-	-	-	-	
Pulp, paper and print	-	-	-	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	-	-	-	-	-	-	-	
Services & households etc.	-	-	-	-	-	-	-	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	


## 6.2 Coal derivatives and peat

	HRVATSKA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	418	513	440	452	615	591	-3.9%
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	24	18	18	19	17	17	0.0%
<i>among which:</i>							
Iron & steel industry	11	5	12	5	6	3	-50.0%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	94	76	77	75	84	86	2.4%
<i>among which:</i>							
Industry	48	36	39	53	52	46	-11.5%
Services & households	46	40	38	22	32	40	25.0%
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	413	457	390	394	548	500	-8.8%
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	2	27	24	30	32	33	3.1%
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	144	158	146	148	237	108	-54.4%

## 7. Renewable energy sources


	HRVATSKA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total primary production <i>in 1000 toe</i>	845	900	879	855	757	800	5.7%
Hydro (excl. pumping)	469	567	505	563	461	419	-9.1%
Wind	-	-	-	-	-	-	-
Solar	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Biomass	376	333	374	292	296	381	28.8%
<i>among which:</i>							
Wood, wood-waste	376	333	374	292	296	381	28.8%
Municipal solid waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
Gross inland consumption	845	900	879	855	757	800	5.7%
<b>Inputs to electricity and heat production</b>							
<i>in 1000 toe</i>							
Geothermal	-	-	-	-	-	-	-
Biomass	2	2	0	-	-	-	-
<i>among which:</i>							
Wood, wood-waste	2	2	0	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Final consumption of RES (excl. electricity)</b>							
Total <i>in 1000 toe</i>	373	331	373	292	296	381	28.8%
<i>by sector:</i>							
Industry	69	53	53	47	48	60	23.7%
Services & households etc.	304	278	320	245	248	321	29.8%
Transport	-	-	-	-	-	-	-
<i>by source:</i>							
Biomass	373	331	373	292	296	381	28.8%
<i>among which:</i>							
Wood, wood-waste	373	331	373	292	296	381	28.8%
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
<b>Electricity generation from RES</b>							
<i>in GWh</i>							
Solar photovoltaics	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	:	:	:	:	:	2	-
Hydro with installed capacity > 1 & <10 MW	:	:	79	91	96	72	-25.0%
Hydro with installed capacity > 10 MW	:	:	5425	6142	5241	4 802	-8.4%
Wood, Wood-waste	5	2	1	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-



	HRVATSKA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	-	-	-	-	-	1	-
Hydro with installed capacity > 1 & <10 MW	-	-	38	38	38	33	-13.2%
Hydro with installed capacity > 10 MW	-	-	1 750	1 750	1 737	1 749	0.7%
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		ROMÂNIA					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	29 115	28 010	28 628	27 574	26 738	28 211
Net energy imports		11 640	7 982	8 098	9 457	9 119	10 579
Net oil imports		5 379	3 809	3 542	4 991	3 486	3 283
Net gas imports		3 835	2 539	2 712	2 308	3 130	4 676
Gross inland energy consumption		41 268	36 889	37 065	36 812	37 163	40 504
Final energy consumption		25 577	21 855	22 076	22 851	22 910	24 475
Industry		10 133	8 363	8 703	9 511	10 190	10 301
Transport		3 886	3 136	3 381	4 074	4 337	4 255
Services and households etc.		11 558	10 356	9 992	9 265	8 382	9 919
Gross electricity generation	GWh	53 496	50 710	51 934	53 866	54 935	56 645
Final electricity consumption		36 550	33 888	33 912	36 265	35 575	37 465
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	25 190	24 900	25 436	26 897	28 229	29 598
Population	1000 per.	22 526	22 489	22 456	22 431	21 834	21 773
Industry added value	Mio EUR	:	9 530	10 101	10 642	11 300	11 856
Total imports (current prices)	Mio EUR	11 709	11 532	14 653	17 351	19 441	22 606
among which:							
All energy commodities		-	-	-	-	-	-
Oil products		-	-	-	-	-	-
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	1 638.3	1 481.5	1 457.2	1 368.6	1 316.5	1 368.4
Final energy consumption / GDP(95)		1 015.4	877.7	867.9	849.6	811.6	826.9
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		:	877.6	861.6	893.8	901.8	868.8
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		:	125.7	121.4	180.7	109.0	:
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	1 832	1 640	1 651	1 641	1 702	1 860
Final energy consumption / capita		1 135	972	983	1 019	1 049	1 124
Household consumption / capita		423	389	375	325	331	360
Electricity consumption / capita	kWh/cap.	1 557	1 405	1 624	1 678	1 650	1 897
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	28.2	21.6	21.8	25.7	24.5	26.1
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	62.0	59.2	59.6	62.1	61.6	60.4
Efficiency of thermal power stations		58.8	54.7	54.4	57.1	55.0	49.8

## 2. Energy balance

### Principal aggregates by product

 eurostat	ROMANIA						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	29 115	28 010	28 628	27 574	26 738	28 211	5.5%
<i>among which:</i> Hard coal	662	509	162	64	7	7	-12.1%
Lignite and peat	4 712	4 137	5 713	5 634	5 167	6 530	26.4%
Crude oil	6 582	6 430	6 337	6 272	6 113	5 919	-3.2%
Natural Gas	11 150	11 192	10 968	10 780	10 281	10 429	1.4%
Nuclear heat	1 369	1 341	1 407	1 405	1 422	1 266	-11.0%
Hydro-electricity	1 623	1 573	1 271	1 283	1 380	1 140	-17.4%
Biomass	3 017	2 820	2 763	2 130	2 351	2 903	23.5%
<b>Imports</b>							
Total	15 060	10 291	11 023	12 754	14 066	14 628	4.0%
<i>among which:</i> Hard coal	2 409	1 617	1 650	1 763	2 394	1 616	-32.5%
Crude oil and feedstocks	6 004	4 357	4 836	5 574	6 405	5 242	-18.2%
Petroleum products	2 644	1 537	1 492	2 532	1 745	1 828	4.7%
Natural Gas	3 835	2 539	2 712	2 308	3 130	4 676	49.4%
Electricity	102	95	67	66	37	83	120.6%
<b>Exports</b>							
Total	3 420	2 309	2 925	3 297	4 948	4 049	-18.2%
<i>among which:</i> Crude oil and feedstocks	2	3	-	-	-	-	-
Petroleum products	3 267	2 082	2 786	3 116	4 665	3 787	-18.8%
Natural gas	-	-	-	-	-	-	-
Electricity	61	166	126	179	283	262	-7.4%
<b>Gross inland consumption</b>							
Total	41 268	36 889	37 065	36 812	37 163	40 504	9.0%
<i>among which:</i> Solid fuels	8 044	6 888	7 752	7 609	7 855	9 513	21.1%
Crude oil and petrol. prod.	12 190	10 574	10 148	11 083	10 961	10 646	-2.9%
Natural gas	14 985	13 731	13 680	13 180	13 311	15 169	14.0%
Nuclear Energy	1 369	1 341	1 407	1 405	1 422	1 266	-11.0%
Renewables	4 640	4 400	4 041	3 423	3 749	4 002	6.8%
<b>Transformation input</b>							
Total	33 150	26 794	26 603	28 211	28 920	28 593	-1.1%
<i>among which:</i> Crude oil and feedstocks	13 298	10 634	11 318	12 536	13 668	12 252	-10.4%
Petroleum products	2 460	2 297	1 956	2 593	1 835	1 603	-12.6%
Hard coal	3 464	1 744	1 677	1 852	2 056	1 403	-31.8%
Lignite and peat	5 171	4 927	5 273	5 137	5 066	6 693	32.1%
Renewables	20	10	20	9	83	16	-80.6%
<b>Transformation output</b>							
Total	25 426	20 191	20 456	21 746	22 675	21 483	-5.3%
<i>among which:</i> Electricity	2 977	2 788	3 195	3 348	3 344	3 731	11.6%
Heat	6 388	5 157	4 557	4 581	3 737	3 615	-3.3%

**Final energy consumption**

Total	25 577	21 855	22 076	22 851	22 910	24 475	6.8%
<i>among which:</i> Solid fuels	1 426	987	698	977	1 140	1 507	32.2%
Petroleum products	6 559	4 886	5 295	6 167	6 363	5 899	-7.3%
Natural Gas	5 806	5 845	6 361	6 708	6 849	8 029	17.2%
Renewables	2 960	2 801	2 735	2 116	2 257	2 818	24.9%
Electricity	3 143	2 914	2 916	3 118	3 059	3 221	5.3%

**Final energy consumption by sector**
**Industry**

Total	10 133	8 363	8 703	9 511	10 190	10 301	1.1%
<i>among which:</i> Solid fuels	1 406	937	671	963	1 114	1 487	33.5%
Petroleum Products	1 608	1 137	1 228	1 527	1 446	962	-33.5%
Natural Gas	3 075	3 386	3 886	4 113	4 350	4 553	4.7%
Renewables	221	224	261	230	324	476	46.7%
Electricity	1 951	1 750	1 712	1 785	1 952	1 921	-1.6%


**Transport**

Total	3 886	3 136	3 381	4 074	4 337	4 255	-1.9%
<i>among which:</i> Motor spirit	1 497	1 272	1 301	1 662	1 831	1 619	-11.5%
Diesel oil	1 957	1 455	1 732	1 993	2 146	2 359	9.9%
Jet fuel	107	130	128	114	101	98	-3.1%
Electricity	168	125	158	151	166	154	-7.4%


**Services&households**

Total	11 558	10 356	9 992	9 265	8 382	9 919	18.3%
<i>among which:</i> Solid fuels	19	50	27	14	26	20	-23.5%
Gas oil	809	391	462	336	401	365	-9.1%
Natural Gas	2 730	2 459	2 473	2 528	2 476	3 459	39.7%
Renewables	2 739	2 577	2 474	1 886	1 932	2 342	21.2%
Electricity	1 024	1 039	1 047	1 183	940	1 147	22.0%
Heat	3 811	3 487	3 101	2 849	2 218	2 076	-6.4%


### 3.1 Electricity balance

 eurostat	ROMANIA						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	53 496	50 710	51 934	53 866	54 935	56 645	3.1%
<i>among which:</i>							
Hydro	18 879	18 290	14 778	14 923	16 046	13 259	-17.4%
Wind	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-
Nuclear	5 307	5 198	5 456	5 446	5 513	4 906	-11.0%
Conventional thermal	29 310	27 222	31 700	33 497	33 376	38 480	15.3%
<i>of which:</i>							
Hard coal	-	-	383	926	400	-	-
Lignite and peat	14 485	14 684	18 543	18 768	19 912	23 344	17.2%
Petroleum products	4 140	3 855	3 399	5 405	3 578	3 633	1.5%
Natural gas	10 165	8 437	9 001	8 073	9 166	11 201	22.2%
Derived gases	509	246	374	325	317	299	-5.7%
Biomass	11	-	-	-	3	3	0.0%
Industrial wastes	-	-	-	-	-	-	-
Total net generation	50 078	46 210	48 625	50 423	51 256	52 622	2.7%
<b>Imports and exports</b>							
Total imports	1 181	1 103	774	767	436	962	120.6%
Total exports	715	1 930	1 470	2 077	3 290	3 046	-7.4%
<b>Consumption and losses</b>							
Consumption of the energy branch	10 897	9 611	10 697	9 477	9 620	11 017	14.5%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	6 515	6 387	6 629	6 814	6 886	6 079	-11.7%
Final energy consumption	36 550	33 888	33 912	36 265	35 575	37 465	5.3%
<i>of which:</i>							
Industry	22 686	20 348	19 909	20 754	22 706	22 337	-1.6%
<i>among which:</i>							
Iron&steel industry	7 558	7 346	5 893	7 271	6 966	7 220	3.6%
Non-ferrous metals	-	-	-	-	-	-	-
Chemical industry	4 329	3 141	3 489	3 422	3 859	3 696	-4.2%
Non-met. mineral prod.	1 806	1 811	1 771	1 594	1 715	1 038	-39.5%
Food, drink, tobacco	1 032	1 192	1 302	1 370	1 536	2 570	67.3%
Pulp, paper and print	553	549	697	718	694	812	17.0%
Engineering & metal	4 109	2 876	2 896	2 721	3 148	2 827	-10.2%
Other industries	2 081	2 367	2 497	2 191	2 968	2 591	-12.7%
Transport	1 951	1 456	1 832	1 756	1 936	1 793	-7.4%
Services & households etc.	11 913	12 084	12 171	13 755	10 933	13 335	22.0%
<i>among which:</i>							
Households	7 917	7 883	7 652	7 724	7 771	8 243	6.1%


## 3.2 Electrical capacity, fuel inputs and heat

		ROMANIA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	22 558	22 237	21 904	20 864	19 588	19 369	-1.1%
<i>by source:</i>								
Conventional thermal		15 770	15 448	15 077	14 035	12 639	12 414	-1.8%
<i>of which:</i>								
Steam		15 392	15 137	14 901	13 883	12 558	12 347	-1.7%
Gas turbine		-	-	-	-	-	-	-
Combined cycle		-	-	-	-	-	-	-
Internal combustion		378	311	176	152	81	67	-17.3%
Nuclear		707	707	707	707	707	707	0.0%
Hydro		6 081	6 082	6 120	6 122	6 242	6 248	0.1%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		-	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		21 253	21 203	21 017	20 083	18 893	18 794	-0.5%
Autoproducers		1 305	1 033	887	781	695	575	-17.3%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	11 502	10 615	10 638	10 807	10 046	12 008	19.5%
<i>among which:</i>								
Hard coal		27	139	189	326	168	-	-
Lignite and peat		5 105	4 888	5 254	5 118	5 047	6 668	32.1%
Petroleum products		1 904	1 943	1 684	2 403	1 632	1 426	-12.6%
Natural gas		4 341	3 587	3 393	2 837	3 065	3 801	24.0%
Renewables		4	2	1	0	11	2	-78.9%
Heating plants		2 965	1 959	1 737	1 500	1 357	1 091	-19.6%
<i>among which:</i>								
Hard coal		437	17	15	14	6	-	-
Lignite and peat		66	39	20	19	19	25	30.0%
Petroleum products		556	355	272	190	203	178	-12.6%
Natural gas		1 866	1 521	1 407	1 250	1 050	875	-16.7%
Renewables		16	9	19	9	75	14	-81.0%
<b>Heat production and consumption</b>								
Total heat production	TJ	6 388	5 157	4 557	4 581	3 737	3 615	-3.3%
<i>among which: in heating plants</i>		2 139	1 690	1 492	1 294	1 078	941	-12.7%
Heat consumption		5 014	3 960	3 570	3 289	2 665	2 419	-9.2%
<i>of which: in industry</i>		1 203	473	468	440	447	343	-23.2%
in households and services		3 811	3 487	3 101	2 849	2 218	2 076	-6.4%
<i>among which: in households</i>		3 441	3 053	2 601	2 504	2 069	1 896	-8.4%


## 4.1 Crude oil and feedstocks

 eurostat	ROMANIA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		6 553	6 379	6 288	6 238	6 072	5 890	-3.0%
Total imports		5 977	4 322	4 798	5 544	6 362	5 217	-18.0%
Total exports		2	3	-	-	-	-	-
Stock changes		-37	-20	-112	37	-37	94	354.1%
Refinery intake		13 233	10 546	11 227	12 461	13 565	12 180	-10.2%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-


## 4.2 Petroleum products

 eurostat	ROMANIA						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	13 025	10 458	10 990	12 152	13 453	12 180	-9.5%
among which:							
Motor spirit	3 203	2 448	2 629	2 734	3 572	3 297	-7.7%
Kerosene and jet fuel	164	186	225	305	173	191	10.4%
Naphtha	424	569	591	639	670	460	-31.3%
Gas/diesel oil	4 685	3 519	3 839	4 199	4 689	3 988	-14.9%
Residual fuel oil	1 941	1 825	1 433	1 797	2 050	1 562	-23.8%
Total imports	2 745	1 592	1 562	2 679	1 844	1 894	2.7%
Total exports	3 232	2 027	2 750	3 096	4 576	3 696	-19.2%
Bunkers	-	-	-	-	-	-	-
Stock changes	78	292	348	-253	-1	76	-
Gross inland consumption	-409	-143	-840	-670	-2 733	-1 726	36.8%
<b>Imports and exports</b>							
Imports by origin							
among which:							
Netherlands	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-
OPEC	-	-	-	-	-	-	-
Imports by product							
among which:							
Motor spirit	110	66	8	18	28	74	164.3%
Kerosene and jet fuel	23	52	40	21	17	40	135.3%
Gas/diesel oil	137	28	15	67	222	450	102.7%
Residual fuel oil	2 368	1 304	1 305	2 186	1 204	947	-21.3%
Exports by product							
among which:							
Motor spirit	1 502	1 046	1 113	1 009	1 980	1 726	-12.8%
Kerosene and jet fuel	9	23	67	75	44	84	90.9%
Gas/diesel oil	1 441	823	1 177	1 494	2 122	1 496	-29.5%
Residual fuel oil	9	34	75	222	177	219	23.7%
<b>Consumption</b>							
Inputs to electricity plants	1 987	2 024	1 755	2 498	1 700	1 492	-12.2%
Inputs to heating plants	567	361	276	193	209	180	-13.9%
Non-energy use	1 130	1 157	1 335	1 464	1 575	1 259	-20.1%
Final energy consumption	6 424	4 813	5 197	6 025	6 199	5 717	-7.8%
Industry							
among which <i>by product</i> :							
Gas/diesel oil	535	335	394	534	494	382	-22.7%
Residual fuel oil	784	675	738	768	393	257	-34.6%




 eurostat	ROMANIA							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		211	211	222	187	149	125	-16.1%
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		291	138	231	432	424	253	-40.3%
Non-met. mineral prod.		261	183	228	241	84	15	-82.1%
Food, drink, tobacco		111	127	143	148	178	98	-44.9%
Pulp, paper and print		54	47	30	34	23	25	8.7%
Engineering & metal		94	95	84	120	112	115	2.7%
Other industries		321	202	207	248	265	235	-11.3%
<b>Transport</b>		3 628	2 938	3 140	3 756	4 039	3 979	-1.5%
<i>among which:</i>								
Motor spirit		1 424	1 210	1 238	1 581	1 742	1 541	-11.5%
Jet fuel		104	127	125	111	98	95	-3.1%
Diesel oil		1 937	1 440	1 714	1 973	2 124	2 335	9.9%
<b>Services &amp; households etc.</b>		1 198	707	811	747	733	812	10.8%
<i>among which:</i>								
Gas oil		801	387	457	333	397	361	-9.1%
Residual fuel oil		27	10	1	4	5	19	280.0%
<b>Stocks at end of period</b>								
Crude oil and feedstocks		565	606	706	497	673	579	-14.0%
Petroleum products		1 413	1 529	970	1 285	1 270	1 194	-6.0%


## 5. Natural gas

 eurostat	in TJ (GCV)	ROMANIA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		518 676	520 668	510 237	501 496	478 260	485 135	1.4%
Total imports		178 410	118 099	126 151	107 387	145 601	217 538	49.4%
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	4 242	-4 656	2 974	163.9%
Gross inland consumption		697 086	638 767	636 388	613 125	619 205	705 647	14.0%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		201 921	166 881	157 838	131 989	142 582	176 832	24.0%
Inputs to heat plants		86 815	70 759	65 451	58 161	48 864	40 694	-16.7%
Consumption of energy branch		66 883	48 916	61 485	52 820	73 150	64 283	-12.1%
Distribution losses		13 903	17 846	14 121	17 336	19 045	23 733	24.6%
Non-energy use		34 262	40 110	41 576	40 781	31 775	26 032	-18.1%
Industry		143 066	157 507	180 795	191 323	202 376	211 822	4.7%
<i>among which:</i>								
Iron&steel industry		50 177	43 186	40 024	36 210	31 699	31 231	-1.5%
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		34 114	38 650	60 219	69 400	78 882	100 307	27.2%
Non-met. mineral prod.		26 660	27 313	26 539	27 380	32 259	22 820	-29.3%
Food, drink, tobacco		12 019	14 063	13 415	20 881	13 027	14 913	14.5%
Pulp, paper and print		4 586	4 704	5 713	5 171	5 825	6 566	12.7%
Engineering & metal		23 149	32 014	20 485	23 138	22 485	16 171	-28.1%
Other industries		9 205	9 973	11 576	6 881	7 244	9 729	34.3%
Transport		1 487	1 003	1 245	1 088	1 490	1 024	-31.3%
Services & households etc.		126 988	114 388	115 034	117 595	115 197	160 903	39.7%
<i>among which:</i>								
Households		103 761	94 536	103 129	92 799	109 407	119 146	8.9%
Services		21 071	17 494	10 914	24 091	5 287	21 502	306.7%


## 6.1 Hard coal


 eurostat	ROMANIA						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 t</i>							
<b>Primary production and supply</b>							
Primary production	1 406	1 097	281	121	13	10	-23.1%
Total imports	3 668	2 467	2 522	2 725	3 673	2 462	-33.0%
Total exports	-	-	-	-	-	-	-
Stock changes	320	142	-154	65	-217	138	163.6%
Gross inland consumption	5 394	3 706	2 649	2 911	3 469	2 610	-24.8%
<b>Imports</b>							
Imports by origin							
<i>among which:</i>							
USA	-	-	-	-	-	-	-
Poland	-	-	-	-	-	-	-
CIS	-	-	-	-	-	-	-
Australia	-	-	-	-	-	-	-
South Africa	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-
<b>Consumption</b>							
Inputs to electricity plants	60	310	321	549	292	-	-
Inputs to heat plants	977	38	25	23	10	-	-
Consumption of energy branch	74	24	11	20	10	3	-70.0%
Industry	20	9	9	14	8	353	-
<i>among which:</i>							
Iron&steel industry	2	1	2	-	1	346	-
Non-ferrous metals	-	-	-	-	-	-	-
Chemical industry	6	1	1	7	-	-	-
Non-met. mineral prod.	7	5	5	5	7	7	0.0%
Food, drink, tobacco	-	-	-	-	-	-	-
Pulp, paper and print	-	-	-	1	-	-	-
Engineering & metal	2	1	1	-	-	-	-
Other industries	1	1	-	1	-	-	-
Services & households etc.	13	46	45	2	3	-	-
<b>Structural data</b>							
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-

## 6.2 Coal derivatives and peat

	ROMANIA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	3 132	1 716	1 613	1 413	1 866	1 638	-12.2%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	24 825	21 796	29 013	33 168	30 415	33 053	8.7%
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	18 881	9 799	9 238	9 590	12 775	10 161	-20.5%
Blast-furnace gas	24 715	17 126	17 002	20 423	24 624	24 972	1.4%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	2 094	1 292	911	1 328	1 595	1 756	10.1%
<i>among which:</i>							
Iron & steel industry	2 023	1 292	823	1 246	1 483	1 658	11.8%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	491	804	549	772	759	682	-10.1%
<i>among which:</i>							
Industry	422	652	545	697	614	579	-5.7%
Services & households	69	152	4	75	145	102	-29.7%
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	13 809	7 471	7 401	4 472	6 192	4 461	-28.0%
Blast-furnace gas	15 601	11 834	11 534	12 419	14 145	16 869	19.3%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	5 279	2 363	4 970	5 187	5 037	4 553	-9.6%
Inputs to heat plants	1 012	645	-	-	-	-	-
Consumption of energy branch	5 830	2 750	1 863	7 066	11 099	8 367	-24.6%
Consumption in industry	29 401	19 304	18 935	16 891	20 337	21 330	4.9%


## 7. Renewable energy sources

		ROMANIA						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	4 640	4 400	4 040	3 419	3 748	4 061	8.4%
Hydro (excl. pumping)		1 623	1 573	1 271	1 283	1 380	1 140	-17.4%
Wind		-	-	-	-	-	-	-
Solar		-	-	-	-	-	-	-
Geothermal		-	8	7	5	17	18	3.4%
Biomass		3 017	2 820	2 763	2 130	2 351	2 903	23.5%
	<i>among which:</i>							
Wood, wood-waste		3 017	2 820	2 763	2 130	2 351	2 903	23.5%
Municipal solid waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
Gross inland consumption		4 640	4 400	4 041	3 423	3 749	4 002	6.8%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	2	0	-87.7%
Biomass		20	10	20	9	83	16	-80.6%
	<i>among which:</i>							
Wood, wood-waste		20	10	20	9	83	16	-80.6%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	2 960	2 806	2 741	2 121	2 272	2 835	24.8%
	<i>by sector:</i>							
Industry		221	224	261	230	324	476	46.7%
Services & households etc.		2 739	2 582	2 480	1 891	1 947	2 359	21.1%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		2 960	2 801	2 735	2 116	2 257	2 818	24.9%
	<i>among which:</i>							
Wood, wood-waste		2 960	2 801	2 735	2 116	2 257	2 818	24.9%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
Geothermal		-	5	6	5	15	17	10.5%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		:	:	:	:	54	72	33.3%
Hydro with installed capacity > 1 & <10 MW		:	:	:	:	382	398	4.2%
Hydro with installed capacity > 10 MW		:	:	:	:	15 610	12 789	-18.1%
Wood, Wood-waste		-	-	-	-	-	-	-
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	3	-	-

	ROMANIA						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	:	:	:	:	70	74	5.7%
Hydro with installed capacity > 1 & <10 MW	:	:	:	:	276	274	-0.7%
Hydro with installed capacity > 10 MW	:	:	:	:	5 896	5 900	0.1%
Wood, Wood-waste	-	-	251	151	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	3	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-


# 1. Energy economy

## Key figures and energy indicators

		TÜRKIYE					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	29 108	27 526	26 715	25 820	24 501	23 650
Net energy imports		43 410	43 347	50 873	45 913	51 018	57 315
Net oil imports		26 844	26 418	29 285	26 846	28 526	29 111
Net gas imports		8 460	10 062	12 051	13 217	14 340	17 283
Gross inland energy consumption		72 310	71 026	77 358	71 881	75 221	79 721
Final energy consumption		49 795	49 163	54 142	49 399	52 973	56 485
Industry		17 766	16 464	20 184	15 813	19 341	21 033
Transport		11 074	11 558	12 167	11 667	12 550	12 570
Services and households etc.		20 956	21 141	21 791	21 919	21 082	22 882
Gross electricity generation	GWh	111 022	116 440	124 922	122 725	129 400	140 581
Final electricity consumption		85 763	89 205	95 873	95 315	101 532	110 364
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	153 688	146 451	157 229	145 444	156 995	166 092
Population	1000 per.	64 789	65 819	66 835	66 362	70 800	71 880
Industry added value	Mio EUR	49 089	46 030	48 699	45 191	48 411	51 083
Total imports (current prices)	Mio EUR	47 645	45 902	57 563	43 266	50 113	63 675
among which:							
All energy commodities		:	:	:	:	:	:
Oil products		:	:	:	:	:	:
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	470.5	485.0	492.0	494.2	479.1	480.0
Final energy consumption / GDP(95)		324.0	335.7	344.4	339.6	337.4	340.1
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		361.9	357.7	414.5	349.9	399.5	411.7
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		18.6	19.8	20.6	30.6	31.5	33.8
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	1 116	1 079	1 157	1 083	1 062	1 109
Final energy consumption / capita		769	747	810	744	748	786
Household consumption / capita		256	252	254	248	212	232
Electricity consumption / capita	kWh/cap.	1 108	1 273	1 457	1 549	1 396	1 471
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	59.9	60.8	65.4	63.7	67.4	71.3
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	68.9	69.2	70.0	68.7	70.4	70.9
Efficiency of thermal power stations		35.2	37.8	38.6	37.8	40.1	41.5

## 2. Energy balance

### Principal aggregates by product

 eurostat	TURKIYE						
	in 1 000 toe						
	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>							
Total	29 108	27 526	26 715	25 820	24 501	23 650	-3.5%
among which:							
Hard coal	1 152	1 042	1 168	1 268	1 171	1 083	-7.6%
Lignite and peat	12 791	12 240	12 125	12 362	10 528	9 721	-7.7%
Crude oil	3 219	2 937	2 746	2 508	2 414	2 349	-2.7%
Natural Gas	465	602	526	257	311	461	48.2%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	3 631	2 982	2 655	2 064	2 896	3 038	4.9%
Biomass	6 984	6 798	6 546	6 303	6 039	5 783	-4.2%
<b>Imports</b>							
Total	45 502	45 778	52 132	48 373	54 001	60 964	12.9%
among which:							
Hard coal	7 421	6 377	8 740	5 124	7 395	10 516	42.2%
Crude oil and feedstocks	23 705	22 950	21 458	23 129	23 599	24 078	2.0%
Petroleum products	5 205	5 873	9 049	6 139	7 873	8 632	9.6%
Natural Gas	8 460	10 062	12 051	13 217	14 340	17 283	20.5%
Electricity	284	200	326	394	309	100	-67.7%
<b>Exports</b>							
Total	2 091	2 430	1 259	2 460	2 983	3 650	22.4%
among which:							
Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	2 066	2 406	1 222	2 422	2 945	3 599	22.2%
Natural gas	-	-	-	-	-	-	-
Electricity	26	25	38	37	37	51	35.2%
<b>Gross inland consumption</b>							
Total	72 310	71 026	77 358	71 881	75 221	79 721	6.0%
among which:							
Solid fuels	21 976	20 078	23 278	19 745	19 477	21 307	9.4%
Crude oil and petrol. prod.	29 649	29 476	31 005	28 983	30 660	30 608	-0.2%
Natural gas	8 946	10 591	12 638	13 372	14 735	17 721	20.3%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	11 481	10 705	10 149	9 424	10 077	10 036	-0.4%
<b>Transformation input</b>							
Total	48 729	48 486	48 726	51 271	50 133	52 297	4.3%
among which:							
Crude oil and feedstocks	27 684	25 944	23 819	25 437	26 185	26 700	2.0%
Petroleum products	2 287	2 240	2 775	2 536	2 329	2 311	-0.8%
Hard coal	4 267	3 914	3 968	3 623	3 417	4 817	41.0%
Lignite and peat	8 475	8 641	8 890	9 463	7 348	6 072	-17.4%
Renewables	81	83	90	93	66	36	-45.7%
<b>Transformation output</b>							
Total	36 673	35 867	35 030	36 709	37 203	38 808	4.3%
among which:							
Electricity	5 915	7 029	8 083	8 483	8 226	9 045	10.0%
Heat	:	:	:	:	:	:	:





in 1 000 toe

**TURKIYE**

**1998**   **1999**   **2000**   **2001**   **2002**   **2003**   **03/02**

**Final energy consumption**

Total	49 795	49 163	54 142	49 399	52 973	56 485	6.6%
<i>among which:</i> Solid fuels	9 351	7 681	10 687	8 117	9 165	10 900	18.9%
Petroleum products	21 192	21 832	22 970	21 063	22 822	22 504	-1.4%
Natural Gas	3 617	3 891	4 364	4 328	4 769	6 218	30.4%
Renewables	6 903	6 715	6 456	6 210	5 973	5 747	-3.8%
Electricity	7 374	7 670	8 244	8 196	8 730	9 490	8.7%

**Final energy consumption by sector**

**Industry**

Total	17 766	16 464	20 184	15 813	19 341	21 033	8.7%
<i>among which:</i> Solid fuels	7 682	6 350	9 271	5 988	7 960	9 316	17.0%
Petroleum Products	4 196	4 173	4 645	3 938	4 987	4 636	-7.0%
Natural Gas	1 454	1 520	1 667	1 389	1 607	1 853	15.3%
Renewables	-	-	-	-	-	-	-
Electricity	3 800	3 825	3 963	3 869	4 203	4 617	9.9%


**Transport**

Total	11 074	11 558	12 167	11 667	12 550	12 570	0.2%
<i>among which:</i> Motor spirit	4 774	4 474	3 803	3 139	3 279	2 853	-13.0%
Diesel oil	3 980	4 992	5 511	5 706	6 270	6 585	5.0%
Jet fuel	1 562	1 182	1 261	1 241	1 632	1 740	6.6%
Electricity	28	36	66	57	66	61	-6.4%

**Services&households**

Total	20 956	21 141	21 791	21 919	21 082	22 882	8.5%
<i>among which:</i> Solid fuels	1 669	1 331	1 416	2 129	1 205	1 584	31.4%
Gas oil	2 562	2 634	2 634	2 624	2 865	2 584	-9.8%
Natural Gas	2 159	2 369	2 695	2 937	3 159	4 361	38.1%
Renewables	6 903	6 715	6 456	6 210	5 973	5 747	-3.8%
Electricity	3 546	3 809	4 215	4 270	4 462	4 811	7.8%
Heat	:	:	:	:	:	:	:


### 3.1 Electricity balance

 eurostat	TURKIYE						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	111 022	116 440	124 922	122 725	129 400	140 581	8.6%
<i>among which:</i>							
Hydro	42 229	34 677	30 879	24 010	33 684	35 330	4.9%
Wind	5	21	33	62	48	61	27.1%
Geothermal	85	81	76	90	105	89	-15.2%
Nuclear	-	-	-	-	-	-	-
Conventional thermal	68 703	81 661	93 934	98 563	95 563	105 101	10.0%
<i>of which:</i>							
Hard coal	2 318	2 312	2 964	3 368	3 370	7 830	132.3%
Lignite and peat	32 707	33 908	34 367	34 371	28 056	23 590	-15.9%
Petroleum products	7 923	8 079	10 461	10 417	10 744	9 197	-14.4%
Natural gas	24 838	36 347	45 067	49 550	52 496	63 535	21.0%
Derived gases	663	811	855	678	723	833	15.2%
Biomass	249	149	166	133	130	80	-38.5%
Industrial wastes	5	55	54	46	44	36	-18.2%
Total net generation	105 499	110 702	118 698	116 251	123 727	135 248	9.3%
<b>Imports and exports</b>							
Total imports	3 298	2 330	3 791	4 579	3 588	1 158	-67.7%
Total exports	298	285	437	433	435	588	35.2%
<b>Consumption and losses</b>							
Consumption of the energy branch	7 464	7 735	8 647	8 227	7 089	6 735	-5.0%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	20 795	21 545	23 756	23 329	23 932	24 052	0.5%
Final energy consumption	85 763	89 205	95 873	95 315	101 532	110 364	8.7%
<i>of which:</i>							
Industry	44 198	44 483	46 089	44 998	48 876	53 697	9.9%
<i>among which:</i>							
Iron&steel industry	8 703	7 735	8 395	8 062	8 074	9 582	18.7%
Non-ferrous metals	2 708	2 687	2 514	2 523	2 544	3 081	21.1%
Chemical industry	2 215	3 332	2 621	2 409	2 835	3 396	19.8%
Non-met. mineral prod.	5 917	6 506	5 870	5 484	4 929	5 602	13.7%
Food, drink, tobacco	3 611	3 335	3 091	3 150	3 194	4 142	29.7%
Pulp, paper and print	1 352	1 427	1 644	1 166	1 202	1 592	32.4%
Engineering & metal	1 971	2 074	2 483	2 161	2 291	2 737	19.5%
Other industries	8 996	9 167	9 730	10 348	12 987	11 051	-14.9%
Transport	330	423	765	660	762	713	-6.4%
Services & households etc.	41 235	44 299	49 019	49 657	51 894	55 954	7.8%
<i>among which:</i>							
Households	20 034	22 584	23 888	23 557	23 559	25 195	6.9%


## 3.2 Electrical capacity, fuel inputs and heat


eurostat	TURKIYE							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	23 354	26 120	27 264	28 332	31 846	35 587	11.7%
<i>by source:</i>								
Conventional thermal		13 020	15 556	16 052	16 622	19 568	22 974	17.4%
<i>of which:</i>								
Steam	:	8 826	9 142	8 601	8 610	8 485	8 485	-1.5%
Gas turbine	:	4 745	4 850	452	427	447	447	4.7%
Combined cycle	:	1 797	1 841	7 030	9 571	12 784	12 784	33.6%
Internal combustion	:	188	219	539	960	1 258	1 258	31.0%
Nuclear		-	-	-	-	-	-	-
Hydro		10 307	10 537	11 175	11 673	12 241	12 579	2.8%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		9	9	19	19	19	19	0.0%
Geothermal		18	18	18	18	18	15	-16.7%
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		21 047	23 465	24 268	24 958	28 110	31 045	10.4%
Autoproducers		2 307	2 655	2 996	3 374	3 736	4 542	21.6%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	16 790	18 591	20 962	22 428	20 535	21 772	6.0%
<i>among which:</i>								
Hard coal		843	772	867	996	823	1 834	122.8%
Lignite and peat		8 475	8 641	8 890	9 463	7 348	6 072	-17.4%
Petroleum products		2 287	2 240	2 775	2 536	2 329	2 311	-0.8%
Natural gas		4 622	6 332	7 823	8 835	9 422	10 962	16.3%
Renewables		154	153	155	171	156	112	-28.1%
Heating plants		:	:	:	:	:	:	:
<i>among which:</i>								
Hard coal		:	:	:	:	:	:	:
Lignite and peat		:	:	:	:	:	:	:
Petroleum products		:	:	:	:	:	:	:
Natural gas		:	:	:	:	:	:	:
Renewables		:	:	:	:	:	:	:
<b>Heat production and consumption</b>								
Total heat production	TJ	:	:	:	:	:	:	:
<i>among which: in heating plants</i>		:	:	:	:	:	:	:
Heat consumption		:	:	:	:	:	:	:
<i>of which: in industry</i>		:	:	:	:	:	:	:
in households and services		:	:	:	:	:	:	:
<i>among which: in households</i>		:	:	:	:	:	:	:

## 4.1 Crude oil and feedstocks


 eurostat	TURKIYE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		3 223	2 941	2 762	2 520	2 420	2 351	-2.9%
Total imports		23 734	22 985	21 583	23 242	23 662	24 095	1.8%
Total exports		-	-	-	-	-	-	-
Stock changes		619	-11	-310	-188	130	49	-62.3%
Refinery intake		27 717	25 979	23 957	25 560	26 252	26 717	1.8%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	TURKIYE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	27 346	25 653	23 745	25 374	26 037	26 461	1.6%	
<i>among which:</i>								
Motor spirit	3 677	3 300	2 744	2 968	3 718	3 837	3.2%	
Kerosene and jet fuel	1 675	1 144	1 050	1 230	1 650	1 762	6.8%	
Naphtha	1 874	1 882	1 852	2 026	1 453	1 354	-6.8%	
Gas/diesel oil	7 969	7 711	6 646	7 340	7 720	8 087	4.8%	
Residual fuel oil	8 213	8 379	8 022	8 456	7 970	8 038	0.9%	
Total imports	5 022	5 593	8 669	5 791	7 536	8 256	9.6%	
Total exports	2 075	2 459	1 310	2 557	3 016	3 577	18.6%	
Bunkers	161	283	405	237	535	622	16.3%	
Stock changes	-892	431	-353	91	106	-299	-382.1%	
Gross inland consumption	1 894	3 282	6 601	3 088	4 091	3 758	-8.1%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	-	-	-	-	-	-	-	
United Kingdom	-	-	-	-	-	-	-	
Norway	-	-	-	-	-	-	-	
OPEC	-	-	-	-	-	-	-	
Imports by product								
<i>among which:</i>								
Motor spirit	948	1 145	837	437	450	447	-0.7%	
Kerosene and jet fuel	3	85	166	-	17	152	794.1%	
Gas/diesel oil	205	1 111	2 470	1 596	2 409	2 715	12.7%	
Residual fuel oil	742	170	701	226	821	736	-10.4%	
Exports by product								
<i>among which:</i>								
Motor spirit	-	42	-	174	1 113	1 413	27.0%	
Kerosene and jet fuel	-	35	2	5	18	68	277.8%	
Gas/diesel oil	1 095	701	26	208	582	931	60.0%	
Residual fuel oil	563	1 109	575	1 007	423	525	24.1%	
<b>Consumption</b>								
Inputs to electricity plants	2 380	2 312	2 850	2 627	2 412	2 391	-0.9%	
Inputs to heating plants	-	-	-	-	-	-	-	
Non-energy use	4 417	3 626	3 561	3 458	3 567	3 379	-5.3%	
Final energy consumption	20 758	21 393	22 439	20 611	22 389	22 086	-1.4%	
Industry								
<i>among which by product:</i>								
Gas/diesel oil	107	266	260	142	172	227	32.0%	
Residual fuel oil	4 175	3 989	4 048	3 562	4 170	4 165	-0.1%	

 eurostat	TURKIYE						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>							
<i>among which by sector:</i>							
Iron&steel industry	486	436	463	429	404	374	-7.4%
Non-ferrous metals	298	299	277	276	276	276	0.0%
Chemical industry	785	822	891	790	885	884	-0.1%
Non-met. mineral prod.	57	60	67	63	57	55	-3.5%
Food, drink, tobacco	166	125	10	554	637	264	-58.6%
Pulp, paper and print	200	200	196	208	220	274	24.5%
Engineering & metal	-	-	-	-	-	-	-
Other industries	2 066	2 084	2 482	1 948	2 298	2 281	-0.7%
<b>Transport</b>	10 680	11 155	11 700	11 240	12 111	12 148	0.3%
<i>among which:</i>							
Motor spirit	4 543	4 257	3 619	2 987	3 120	2 715	-13.0%
Jet fuel	1 521	1 151	1 228	1 208	1 589	1 694	6.6%
Diesel oil	3 939	4 941	5 455	5 648	6 206	6 518	5.0%
<b>Services &amp; households etc.</b>	5 706	5 898	5 962	5 311	5 181	5 157	-0.5%
<i>among which:</i>							
Gas oil	2 536	2 607	2 607	2 597	2 836	2 558	-9.8%
Residual fuel oil	590	743	636	596	604	500	-17.2%
<b>Stocks at end of period</b>							
Crude oil and feedstocks	4 771	4 782	5 092	5 280	5 150	5 101	-1.0%
Petroleum products	2 367	1 936	2 289	2 233	2 092	2 391	14.3%

## 5. Natural gas


 eurostat	TURKIYE							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		21 638	27 997	24 474	11 950	14 477	21 448	48.2%
Total imports		393 563	468 106	560 616	614 878	667 112	803 993	20.5%
Total exports		-	-	-	-	-	-	-
Stock changes		963	-3 405	2 817	-4 771	3 903	-1 073	-127.5%
Gross inland consumption		416 164	492 698	587 907	622 057	685 492	824 368	20.3%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		214 994	294 576	363 948	411 000	438 324	509 954	16.3%
Inputs to heat plants		-	-	-	-	-	-	-
Consumption of energy branch		5 208	5 007	5 476	5 316	5 741	6 544	14.0%
Distribution losses		902	1 083	1 200	780	805	821	2.0%
Non-energy use		21 579	5 493	4 275	3 608	18 754	17 791	-5.1%
Industry		67 637	70 704	77 540	64 606	74 769	86 201	15.3%
<i>among which:</i>								
Iron&steel industry		9 706	10 461	11 423	10 400	12 866	14 793	15.0%
Non-ferrous metals		5 509	7 985	8 783	7 520	7 800	8 905	14.2%
Chemical industry		9 961	10 061	10 610	13 109	12 749	14 548	14.1%
Non-met. mineral prod.		16 628	16 530	18 561	13 494	15 628	17 348	11.0%
Food, drink, tobacco		3 768	3 873	4 139	4 034	2 496	3 516	40.9%
Pulp, paper and print		2 133	2 245	2 973	1 589	1 911	2 152	12.6%
Engineering & metal		1 800	1 900	1 904	1 443	2 120	2 070	-2.4%
Other industries		8 907	9 200	10 289	7 120	7 269	9 229	27.0%
Transport		159	119	120	130	146	165	13.0%
Services & households etc.		100 456	110 200	125 374	136 625	146 953	202 892	38.1%
<i>among which:</i>								
Households		100 456	110 200	125 374	107 945	112 408	156 399	39.1%
Services		:	:	:	28 680	34 545	46 493	34.6%

## 6.1 Hard coal


 eurostat	TURKIYE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	2 179	2 019	2 281	2 388	2 250	2 011	-10.6%	
Total imports	10 361	8 864	12 990	7 769	11 693	16 166	38.3%	
Total exports	-	-	-	-	-	-	-	
Stock changes	629	508	144	854	-182	-690	-279.1%	
Gross inland consumption	13 169	11 391	15 415	11 011	13 761	17 487	27.1%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	
Poland	-	-	-	-	-	-	-	
CIS	-	-	-	-	-	-	-	
Australia	-	-	-	-	-	-	-	
South Africa	-	-	-	-	-	-	-	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	1 885	1 729	1 980	2 214	1 995	3 668	83.9%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	6 005	4 879	8 461	4 410	7 339	8 753	19.3%	
<i>among which:</i>								
Iron&steel industry	-	-	-	-	-	-	-	
Non-ferrous metals	16	72	32	73	76	80	5.3%	
Chemical industry	-	-	-	-	-	-	-	
Non-met. mineral prod.	24	24	30	54	55	66	20.0%	
Food, drink, tobacco	255	193	167	154	144	113	-21.5%	
Pulp, paper and print	8	12	15	-	15	17	13.3%	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	5 672	4 553	8 182	4 129	7 013	8 432	20.2%	
Services & households etc.	824	691	782	836	921	1 034	12.3%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	




## 6.2 Coal derivatives and peat

 eurostat	TURKIYE						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	3 056	2 802	2 925	2 587	2 598	2 878	10.8%
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	65 204	65 019	60 854	63 445	51 048	46 168	-9.6%
Brown coal briquettes	2	2	2	2	2	47	2250.0%
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	22 865	21 710	21 728	18 826	18 070	21 497	19.0%
Blast-furnace gas	33 858	32 952	34 374	31 713	33 374	34 275	2.7%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	2 460	2 129	2 386	2 096	1 993	2 219	11.3%
<i>among which:</i>							
Iron & steel industry	1 734	1 810	1 936	1 818	1 599	1 834	14.7%
Services & households	109	27	47	22	43	159	269.8%
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	12 387	10 267	11 904	11 170	9 511	11 220	18.0%
<i>among which:</i>							
Industry	6 494	5 198	6 978	5 598	6 141	6 976	13.6%
Services & households	5 893	5 069	4 926	5 572	3 370	4 244	25.9%
Brown coal briquettes	2	2	2	2	2	47	2250.0%
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	2	2	2	2	2	47	2250.0%
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	12 775	11 506	12 073	10 605	8 550	9 483	10.9%
Blast-furnace gas	12 150	11 396	11 770	11 835	11 794	12 081	2.4%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	17 586	19 406	19 219	18 283	19 645	20 729	5.5%
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	14 212	12 256	12 427	9 816	10 511	10 558	0.4%
Consumption in industry	24 925	22 902	23 843	22 440	20 344	21 564	6.0%


## 7. Renewable energy sources

		TURKIYE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	11 481	10 705	10 149	9 424	10 077	10 036	-0.4%
Hydro (excl. pumping)		3 631	2 982	2 655	2 064	2 896	3 038	4.9%
Wind		0	2	3	5	4	5	27.1%
Solar		210	236	262	287	318	350	10.1%
Geothermal		656	688	684	764	820	860	4.9%
Biomass		6 984	6 798	6 546	6 303	6 039	5 783	-4.2%
	<i>among which:</i>							
Wood, wood-waste		6 982	6 794	6 541	6 297	6 032	5 775	-4.3%
Municipal solid waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
Gross inland consumption		11 481	10 705	10 149	9 424	10 077	10 036	-0.4%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		73	70	65	77	90	76	-15.3%
Biomass		81	83	90	93	66	36	-45.7%
	<i>among which:</i>							
Wood, wood-waste		79	79	85	87	59	28	-53.4%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	7 696	7 569	7 336	7 184	7 021	6 881	-2.0%
	<i>by sector:</i>							
Industry		69	76	97	118	119	119	0.0%
Services & households etc.		7 627	7 493	7 239	7 066	6 902	6 762	-2.0%
Transport		-	-	-	-	-	-	-
	<i>by source:</i>							
Biomass		6 903	6 715	6 456	6 210	5 973	5 747	-3.8%
	<i>among which:</i>							
Wood, wood-waste		6 903	6 715	6 456	6 210	5 973	5 747	-3.8%
Municipal waste		-	-	-	-	-	-	-
Biogas		-	-	-	-	-	-	-
Geothermal		582	618	618	687	730	784	7.4%
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		:	:	31	36	53	56	5.7%
Hydro with installed capacity > 1 & <10 MW		:	:	313	375	456	413	-9.4%
Hydro with installed capacity > 10 MW		:	:	30 533	23 599	33 174	34 861	5.1%
Wood, Wood-waste		:	:	145	109	103	48	-53.4%
Municipal waste		-	-	-	-	-	-	-
Biogas		:	:	21	24	27	32	18.5%

	TURKIYE						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	:	:	16	18	16	15	-6.3%
Hydro with installed capacity > 1 & <10 MW	:	:	136	183	142	142	0.0%
Hydro with installed capacity > 10 MW	:	:	11 023	11 472	12 083	12 422	2.8%
Wood, Wood-waste	-	-	72	72	72	72	0.0%
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	4	4	9	9	0.0%
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-

# 1. Energy economy

## Key figures and energy indicators

		ISLAND					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	1 814	2 191	2 306	2 451	2 462	2 457
Net energy imports		929	967	1 030	942	963	932
Net oil imports		862	908	931	847	865	839
Net gas imports		-	-	-	-	-	-
Gross inland energy consumption		2 685	3 074	3 230	3 349	3 382	3 373
Final energy consumption		1 819	1 953	2 057	2 071	2 152	2 158
Industry		527	584	668	700	736	725
Transport		317	329	345	329	316	319
Services and households etc.		975	1 039	1 045	1 042	1 100	1 115
Gross electricity generation	GWh	6 281	7 188	7 684	8 033	8 416	8 500
Final electricity consumption		5 501	6 383	6 911	7 212	7 519	7 516
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	6 050	6 317	6 676	6 849	6 706	6 990
Population	1000 per.	272	276	279	283	287	289
Industry added value	Mio EUR	1 560	1 623	1 700	1 750	1 678	:
Total imports (current prices)	Mio EUR	2 648	2 759	2 981	2 710	2 637	2 913
among which:							
All energy commodities		-	-	-	-	-	-
Oil products		-	-	-	-	-	-
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	443.8	486.7	483.8	489.0	504.4	482.6
Final energy consumption / GDP(95)		300.7	309.1	308.2	302.3	320.9	308.8
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		338.1	360.1	392.9	400.0	438.4	:
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		35.3	36.9	35.5	34.8	35.9	:
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	9 857	11 152	11 576	11 818	11 802	11 693
Final energy consumption / capita		6 678	7 083	7 374	7 306	7 507	7 480
Household consumption / capita		1 957	2 124	2 160	2 200	2 303	2 281
Electricity consumption / capita	kWh/cap.	2 423	4 139	4 760	5 134	5 021	4 894
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	33.9	30.9	31.2	27.7	27.9	27.1
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	67.8	63.5	63.7	61.8	63.6	64.0
Efficiency of thermal power stations		25.6	26.1	25.3	23.1	27.9	27.2

## 2. Energy balance

### Principal aggregates by product

eurostat	ISLAND						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	1 814	2 191	2 306	2 451	2 462	2 457	-0.2%
<i>among which:</i> Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Crude oil	-	-	-	-	-	-	-
Natural Gas	-	-	-	-	-	-	-
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	483	520	547	566	600	609	1.6%
Biomass	1	1	2	1	2	2	0.0%
<b>Imports</b>							
Total	929	967	1 030	942	963	932	-3.3%
<i>among which:</i> Hard coal	47	40	68	66	66	57	-13.3%
Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	862	908	931	847	865	839	-3.0%
Natural Gas	-	-	-	-	-	-	-
Electricity	-	-	-	-	-	-	-
<b>Exports</b>							
Total	-	-	-	-	-	-	-
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	-	-	-	-	-	-	-
Natural gas	-	-	-	-	-	-	-
Electricity	-	-	-	-	-	-	-
<b>Gross inland consumption</b>							
Total	2 685	3 074	3 230	3 349	3 382	3 373	-0.3%
<i>among which:</i> Solid fuels	67	59	100	94	98	93	-5.4%
Crude oil and petrol. prod.	804	825	824	804	822	823	0.1%
Natural gas	-	-	-	-	-	-	-
Nuclear Energy	-	-	-	-	-	-	-
Renewables	1 814	2 191	2 306	2 451	2 462	2 457	-0.2%
<b>Transformation input</b>							
Total	792	1 093	1 132	1 269	1 271	1 222	-3.9%
<i>among which:</i> Crude oil and feedstocks	-	-	-	-	-	-	-
Petroleum products	7	11	1	1	1	1	0.0%
Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Renewables	1	1	2	1	2	2	0.0%
<b>Transformation output</b>							
Total	220	308	307	313	376	353	-6.0%
<i>among which:</i> Electricity	57	98	114	125	124	121	-1.9%
Heat	164	210	192	188	252	232	-8.1%

**Final energy consumption**

Total	1 819	1 953	2 057	2 071	2 152	2 158	0.3%
<i>among which:</i> Solid fuels	67	59	100	94	98	93	-5.4%
Petroleum products	694	697	700	670	683	689	0.8%
Natural Gas	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
Electricity	473	549	594	620	647	646	0.0%

**Final energy consumption by sector**
**Industry**

Total	527	584	668	700	736	725	-1.5%
<i>among which:</i> Solid fuels	67	59	100	94	98	93	-5.4%
Petroleum Products	117	113	118	131	137	127	-6.9%
Natural Gas	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
Electricity	343	413	451	475	501	504	0.8%


**Transport**

Total	317	329	345	329	316	319	1.0%
<i>among which:</i> Motor spirit	151	153	151	152	153	153	0.0%
Diesel oil	43	48	52	53	54	55	1.9%
Jet fuel	119	127	141	121	107	109	1.9%
Electricity	-	-	-	-	-	-	-


**Services&households**

Total	975	1 039	1 045	1 042	1 100	1 115	1.3%
<i>among which:</i> Solid fuels	-	-	-	-	-	-	-
Gas oil	228	241	221	188	218	229	5.1%
Natural Gas	-	-	-	-	-	-	-
Renewables	-	-	-	-	-	-	-
Electricity	130	136	144	146	146	142	-2.8%
Heat	153	193	173	170	227	209	-7.7%

### 3.1 Electricity balance


 eurostat	ISLAND						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	6 281	7 188	7 684	8 033	8 416	8 500	1.0%
<i>among which:</i>							
Hydro	5 621	6 047	6 356	6 578	6 977	7 088	1.6%
Wind	-	-	-	-	-	-	-
Geothermal	655	1 136	1 323	1 451	1 433	1 406	-1.9%
Nuclear	-	-	-	-	-	-	-
Conventional thermal	5	5	5	4	6	6	0.0%
<i>of which:</i>							
Hard coal	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	5	5	5	4	6	6	0.0%
Natural gas	-	-	-	-	-	-	-
Derived gases	-	-	-	-	-	-	-
Biomass	-	-	-	-	-	-	-
Industrial wastes	-	-	-	-	-	-	-
Total net generation	6 197	7 071	7 554	7 892	8 272	8 356	1.0%
<b>Imports and exports</b>							
Total imports	-	-	-	-	-	-	-
Total exports	-	-	-	-	-	-	-
<b>Consumption and losses</b>							
Consumption of the energy branch	342	419	457	468	477	469	-1.7%
<i>of which:</i>							
Consumption for pumped-storage	-	-	-	-	-	-	-
Network losses	438	386	316	353	420	515	22.6%
Final energy consumption	5 501	6 383	6 911	7 212	7 519	7 516	0.0%
<i>of which:</i>							
Industry	3 991	4 798	5 240	5 519	5 822	5 867	0.8%
<i>among which:</i>							
Iron&steel industry	567	674	984	998	1 039	1 050	1.1%
Non-ferrous metals	2 795	3 490	3 605	3 887	4 170	4 180	0.2%
Chemical industry	123	137	108	87	29	20	-31.0%
Non-met. mineral prod.	39	42	45	44	32	31	-3.1%
Food, drink, tobacco	368	362	392	390	428	478	11.7%
Pulp, paper and print	20	20	19	18	16	15	-6.3%
Engineering & metal	14	13	14	14	17	14	-17.6%
Other industries	34	33	40	47	59	48	-18.6%
Transport	-	-	-	-	-	-	-
Services & households etc.	1 510	1 585	1 671	1 693	1 697	1 649	-2.8%
<i>among which:</i>							
Households	563	581	606	608	637	612	-3.9%

## 3.2 Electrical capacity, fuel inputs and heat


	ISLAND							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Net electrical capacity</b>								
Total installed capacity	MW	1 244	1 335	1 383	1 460	1 505	1 507	0.1%
<i>by source:</i>								
Conventional thermal		148	147	147	149	149	150	0.7%
<i>of which:</i>								
Steam		-	-	-	-	-	-	-
Gas turbine		35	35	35	35	35	35	0.0%
Combined cycle		-	-	-	-	-	-	-
Internal combustion		113	112	112	114	114	115	0.9%
Nuclear		-	-	-	-	-	-	-
Hydro		956	1 016	1 064	1 109	1 154	1 155	0.1%
<i>among which:</i>								
Pumped storage		-	-	-	-	-	-	-
Wind		-	-	-	-	-	-	-
Geothermal		140	172	172	202	202	202	0.0%
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		1 213	1 304	1 352	1 429	1 474	1 476	0.1%
Autoproducers		31	31	31	31	31	31	0.0%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	770	1 067	1 109	1 246	1 247	1 198	-3.9%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		1	1	1	1	1	1	0.0%
Natural gas		-	-	-	-	-	-	-
Renewables		769	1 066	1 108	1 245	1 246	1 197	-3.9%
Heating plants		23	27	23	22	24	24	0.0%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		6	10	-	-	-	-	-
Natural gas		-	-	-	-	-	-	-
Renewables		17	17	23	22	24	24	0.0%
<b>Heat production and consumption</b>								
Total heat production	TJ	164	210	192	188	252	232	-8.1%
<i>among which: in heating plants</i>		23	30	26	25	28	28	0.6%
Heat consumption		153	193	173	170	227	209	-7.7%
<i>of which: in industry</i>		-	-	-	-	-	-	-
in households and services		153	193	173	170	227	209	-7.7%
<i>among which: in households</i>		123	159	147	144	197	180	-8.5%




## 4.1 Crude oil and feedstocks


 eurostat	in 1 000 t	ISLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		-	-	-	-	-	-	-
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Refinery intake		-	-	-	-	-	-	-
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-

## 4.2 Petroleum products


 eurostat	ISLAND						
	in 1 000 t						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>							
Total refinery output	-	-	-	-	-	-	-
<i>among which:</i>							
Motor spirit	-	-	-	-	-	-	-
Kerosene and jet fuel	-	-	-	-	-	-	-
Naphtha	-	-	-	-	-	-	-
Gas/diesel oil	-	-	-	-	-	-	-
Residual fuel oil	-	-	-	-	-	-	-
Total imports	878	928	949	871	891	864	-3.0%
Total exports	-	-	-	-	-	-	-
Bunkers	56	51	68	46	66	67	1.5%
Stock changes	-2	-32	-37	3	24	52	116.7%
Gross inland consumption	820	845	844	828	849	849	0.0%
<b>Imports and exports</b>							
Imports by origin							
<i>among which:</i>							
Netherlands	82	79	271	161	104	90	-13.5%
United Kingdom	24	24	90	36	30	26	-13.3%
Norway	580	547	269	197	145	124	-14.5%
OPEC	-	-	-	-	-	-	-
Imports by product							
<i>among which:</i>							
Motor spirit	143	149	153	139	145	140	-3.4%
Kerosene and jet fuel	111	131	147	117	105	110	4.8%
Gas/diesel oil	387	406	428	369	387	384	-0.8%
Residual fuel oil	106	91	64	77	76	58	-23.7%
Exports by product							
<i>among which:</i>							
Motor spirit	-	-	-	-	-	-	-
Kerosene and jet fuel	-	-	-	-	-	-	-
Gas/diesel oil	-	-	-	-	-	-	-
Residual fuel oil	-	-	-	-	-	-	-
<b>Consumption</b>							
Inputs to electricity plants	1	1	1	1	1	1	0.0%
Inputs to heating plants	6	10	-	-	-	-	-
Non-energy use	129	149	155	167	176	170	-3.4%
Final energy consumption	684	685	688	660	673	678	0.7%
Industry							
<i>among which by product:</i>							
Gas/diesel oil	59	59	72	72	68	70	2.9%
Residual fuel oil	60	55	46	60	70	58	-17.1%

 eurostat	ISLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry	-	-	-	-	-	-	-	-
Non-ferrous metals	6	7	7	7	7	7	7	0.0%
Chemical industry	-	-	-	-	-	-	-	-
Non-met. mineral prod.	-	-	-	-	-	-	-	-
Food, drink, tobacco	60	57	50	65	75	62	62	-17.3%
Pulp, paper and print	-	-	-	-	-	-	-	-
Engineering & metal	-	-	-	-	-	-	-	-
Other industries	53	51	62	61	57	60	60	5.3%
<b>Transport</b>	306	318	333	318	305	308	308	1.0%
<i>among which:</i>								
Motor spirit	144	146	144	145	146	146	146	0.0%
Jet fuel	116	124	137	118	104	106	106	1.9%
Diesel oil	43	48	51	52	53	54	54	1.9%
<b>Services &amp; households etc.</b>	259	252	236	209	229	241	241	5.2%
<i>among which:</i>								
Gas oil	226	239	219	186	216	227	227	5.1%
Residual fuel oil	31	12	16	22	12	13	13	8.3%
<b>Stocks at end of period</b>								
Crude oil and feedstocks	-	-	-	-	-	-	-	-
Petroleum products	-	-	-	-	-	-	-	-


## 5. Natural gas

 eurostat	in TJ (GCV)	ISLAND						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		-	-	-	-	-	-	-
Total imports		-	-	-	-	-	-	-
Total exports		-	-	-	-	-	-	-
Stock changes		-	-	-	-	-	-	-
Gross inland consumption		-	-	-	-	-	-	-
<b>Imports</b>								
Imports by origin								
among which:								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		-	-	-	-	-	-	-
Inputs to heat plants		-	-	-	-	-	-	-
Consumption of energy branch		-	-	-	-	-	-	-
Distribution losses		-	-	-	-	-	-	-
Non-energy use		-	-	-	-	-	-	-
Industry		-	-	-	-	-	-	-
among which:								
Iron&steel industry		-	-	-	-	-	-	-
Non-ferrous metals		-	-	-	-	-	-	-
Chemical industry		-	-	-	-	-	-	-
Non-met. mineral prod.		-	-	-	-	-	-	-
Food, drink, tobacco		-	-	-	-	-	-	-
Pulp, paper and print		-	-	-	-	-	-	-
Engineering & metal		-	-	-	-	-	-	-
Other industries		-	-	-	-	-	-	-
Transport		-	-	-	-	-	-	-
Services & households etc.		-	-	-	-	-	-	-
among which:								
Households		-	-	-	-	-	-	-
Services		-	-	-	-	-	-	-


## 6.1 Hard coal


 eurostat	ISLAND							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	-	-	-	-	-	-	-	-
Total imports	70	60	101	98	98	85	-13.3%	
Total exports	-	-	-	-	-	-	-	
Stock changes	-	-	-	-	-	-	-	
Gross inland consumption	70	60	101	98	98	85	-13.3%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	
Poland	-	-	-	-	-	-	-	
CIS	-	-	-	-	-	-	-	
Australia	-	-	-	-	-	-	-	
South Africa	-	-	-	-	-	-	-	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants								
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry								
<i>among which:</i>								
Iron&steel industry	58	41	87	84	85	74	-12.9%	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	-	-	-	-	-	-	-	
Non-met. mineral prod.	12	19	14	14	13	11	-15.4%	
Food, drink, tobacco	-	-	-	-	-	-	-	
Pulp, paper and print	-	-	-	-	-	-	-	
Engineering & metal	-	-	-	-	-	-	-	
Other industries	-	-	-	-	-	-	-	
Services & households etc.	-	-	-	-	-	-	-	
<b>Structural data</b>								
Personnel employed underground								
(annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines								
(end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	ISLAND						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	30	27	47	42	48	53	10.4%
<i>among which:</i>							
Iron & steel industry	30	27	47	42	48	53	10.4%
Services & households	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	-	-	-	-	-	-	-
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	-	-	-	-	-	-	-
Inputs to heat plants	-	-	-	-	-	-	-
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	-	-	-	-	-	-	-

## 7. Renewable energy sources


	ISLAND							
	1998	1999	2000	2001	2002	2003	03/02	
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>							
	1 814	2 191	2 306	2 451	2 462	2 457	-0.2%	
Hydro (excl. pumping)	483	520	547	566	600	609	1.6%	
Wind	-	-	-	-	-	-	-	
Solar	-	-	-	-	-	-	-	
Geothermal	1 330	1 670	1 758	1 884	1 861	1 846	-0.8%	
Biomass	1	1	2	1	2	2	0.0%	
<i>among which:</i>								
Wood, wood-waste	-	-	-	-	-	-	-	
Municipal solid waste	1	1	2	1	2	2	0.0%	
Biogas	-	-	-	-	-	-	-	
Gross inland consumption	1 814	2 191	2 306	2 451	2 462	2 457	-0.2%	
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal	785	1 082	1 129	1 267	1 268	1 219	-3.9%	
Biomass	1	1	2	1	2	2	0.0%	
<i>among which:</i>								
Wood, wood-waste	-	-	-	-	-	-	-	
Municipal waste	1	1	2	1	2	2	0.0%	
Biogas	-	-	-	-	-	-	-	
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>							
	432	456	490	516	497	521	4.8%	
<i>by sector:</i>								
Industry	-	-	-	-	-	-	-	
Services & households etc.	432	456	490	516	497	521	4.8%	
Transport	-	-	-	-	-	-	-	
<i>by source:</i>								
Biomass	-	-	-	-	-	-	-	
<i>among which:</i>								
Wood, wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	
Geothermal	432	456	490	516	497	521	4.8%	
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics	-	-	-	-	-	-	-	
Hydro with installed capacity < 1 MW	:	20	19	19	34	35	2.9%	
Hydro with installed capacity > 1 & <10 MW	:	215	228	224	220	220	0.0%	
Hydro with installed capacity > 10 MW	:	5 812	6 109	6 335	6 723	6 833	1.6%	
Wood, Wood-waste	-	-	-	-	-	-	-	
Municipal waste	-	-	-	-	-	-	-	
Biogas	-	-	-	-	-	-	-	

	ISLAND						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	:	8	7	7	9	9	0.0%
Hydro with installed capacity > 1 & <10 MW	:	39	39	39	39	39	0.0%
Hydro with installed capacity > 10 MW	:	969	1 018	1 063	1 107	1 107	0.0%
Wood, Wood-waste	-	-	-	-	-	-	-
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-



# 1. Energy economy

## Key figures and energy indicators

		NORGE					
		1998	1999	2000	2001	2002	2003
<b>Energy statistics</b>							
Primary energy production	1000 toe	206 141	209 145	224 491	228 410	233 103	233 244
Net energy imports		-180 151	-181 591	-197 835	-202 843	-206 167	-209 202
Net oil imports		-144 255	-142 832	-154 618	-159 572	-151 640	-147 906
Net gas imports		-37 048	-39 381	-42 185	-43 467	-53 025	-60 926
Gross inland energy consumption		25 517	26 712	26 071	26 895	26 320	22 410
Final energy consumption		18 187	18 659	18 087	18 561	18 261	18 117
Industry		6 558	6 830	6 988	6 784	6 413	6 597
Transport		4 735	4 864	4 478	4 589	4 607	4 673
Services and households etc.		6 894	6 964	6 621	7 188	7 242	6 846
Gross electricity generation	GWh	116 983	122 722	143 028	121 890	130 705	107 268
Final electricity consumption		109 057	109 267	109 533	112 188	109 113	102 962
<b>Socio-economic statistics</b>							
Gross domestic product	Mio EUR 1995	128 557	131 299	135 024	138 706	140 240	140 765
Population	1000 per.	4 418	4 445	4 479	4 503	4 524	4 552
Industry added value	Mio EUR	37 306	36 831	37 980	38 360	38 381	37 414
Total imports (current prices)	Mio EUR	47 633	46 777	48 046	48 496	48 859	49 922
among which:							
All energy commodities		-	-	-	-	-	-
Oil products		-	-	-	-	-	-
<b>Energy intensity</b>							
Gross inland consumption / GDP(95)	kgoe/1 000 EUR	198.5	203.4	193.1	193.9	187.7	159.2
Final energy consumption / GDP(95)		141.5	142.1	134.0	133.8	130.2	128.7
<b>Energy intensity of industry:</b>							
Final consumption / gross value-added mp		175.8	185.5	184.0	176.9	167.1	176.3
<b>Energy intensity of service sector:</b>							
Final consumption / gross value-added mp		30.4	29.2	25.8	29.2	30.6	27.6
<b>Energy consumption per inhabitant</b>							
Gross inland consumption / capita	kgoe/cap.	5 776	6 009	5 821	5 972	5 818	4 923
Final energy consumption / capita		4 117	4 197	4 039	4 122	4 036	3 980
Household consumption / capita		887	885	854	885	861	816
Electricity consumption / capita	kWh/cap.	-	-	-	-	-	-
<b>Energy dependency</b>							
Net energy imports / Gross consumption	in %	-682.4	-658.9	-735.8	-732.4	-764.2	-910.9
<b>Energy efficiency</b>							
Final energy consumption/Gross inland consumption	in %	71.3	69.9	69.4	69.0	69.4	80.8
Efficiency of thermal power stations		80.4	91.9	81.2	79.2	108.5	79.7

## 2. Energy balance

### Principal aggregates by product

eurostat	NORGE						
	1998	1999	2000	2001	2002	2003	03/02
<i>in 1 000 toe</i>							
<b>Primary production</b>							
Total	206 141	209 145	224 491	228 410	233 103	233 244	0.1%
<i>among which:</i> Hard coal	218	272	425	1 200	1 431	1 976	38.1%
Lignite and peat	-	-	-	-	-	-	-
Crude oil	153 343	152 783	164 957	166 479	159 968	154 424	-3.5%
Natural Gas	41 355	44 138	45 817	48 892	59 166	66 290	12.0%
Nuclear heat	-	-	-	-	-	-	-
Hydro-electricity	9 946	10 443	11 945	10 354	11 128	9 071	-18.5%
Biomass	1 278	1 507	1 344	1 481	1 404	1 464	4.3%
<b>Imports</b>							
Total	6 947	6 759	5 558	6 230	5 604	6 261	11.7%
<i>among which:</i> Hard coal	641	613	617	554	440	450	2.4%
Crude oil and feedstocks	2 120	2 133	926	955	650	545	-16.1%
Petroleum products	3 102	3 056	3 513	3 458	3 786	3 799	0.4%
Natural Gas	-	-	-	-	-	-	-
Electricity	692	590	127	924	459	1 154	151.6%
<b>Exports</b>							
Total	187 097	188 350	203 392	209 073	211 771	215 463	1.7%
<i>among which:</i> Crude oil and feedstocks	140 311	139 456	149 774	155 100	142 582	138 135	-3.1%
Petroleum products	9 165	8 565	9 283	8 885	13 494	14 115	4.6%
Natural gas	37 048	39 381	42 185	43 467	53 025	60 926	14.9%
Electricity	379	755	1 765	617	1 294	477	-63.1%
<b>Gross inland consumption</b>							
Total	25 517	26 712	26 071	26 895	26 320	22 410	-14.9%
<i>among which:</i> Solid fuels	1 070	1 066	1 079	946	813	789	-3.0%
Crude oil and petrol. prod.	8 591	9 082	9 691	8 353	7 633	4 960	-35.0%
Natural gas	4 306	4 757	3 632	5 425	6 141	5 364	-12.7%
Nuclear Energy	-	-	-	-	-	-	-
Renewables	11 225	11 963	13 296	11 851	12 557	10 607	-15.5%
<b>Transformation input</b>							
Total	15 542	16 010	15 717	15 032	13 939	15 663	12.4%
<i>among which:</i> Crude oil and feedstocks	15 234	15 713	15 440	14 706	13 645	15 248	11.8%
Petroleum products	34	37	16	18	33	54	60.6%
Hard coal	16	17	16	17	16	14	-16.9%
Lignite and peat	-	-	-	-	-	-	-
Renewables	156	129	154	168	169	252	49.2%
<b>Transformation output</b>							
Total	15 417	15 973	15 836	14 446	13 619	15 323	12.5%
<i>among which:</i> Electricity	62	70	63	72	68	82	20.2%
Heat	169	182	175	206	218	258	18.2%

**Final energy consumption**

Total	18 187	18 659	18 087	18 561	18 261	18 117	-0.8%
<i>among which:</i> Solid fuels	1 037	989	1 007	842	776	749	-3.5%
Petroleum products	6 508	6 745	6 147	6 418	6 548	6 861	4.8%
Natural Gas	-	-	174	168	138	182	32.2%
Renewables	1 122	1 378	1 195	1 311	1 236	1 267	2.6%
Electricity	9 377	9 395	9 418	9 646	9 382	8 853	-5.6%

**Final energy consumption by sector**
**Industry**

Total	6 558	6 830	6 988	6 784	6 413	6 597	2.9%
<i>among which:</i> Solid fuels	1 033	987	1 004	839	773	747	-3.3%
Petroleum Products	690	778	748	801	772	897	16.3%
Natural Gas	-	-	172	161	128	170	32.8%
Renewables	494	782	592	708	631	566	-10.3%
Electricity	4 299	4 246	4 434	4 241	4 075	4 173	2.4%


**Transport**

Total	4 735	4 864	4 478	4 589	4 607	4 673	1.4%
<i>among which:</i> Motor spirit	1 757	1 732	1 683	1 746	1 728	1 709	-1.1%
Diesel oil	2 150	2 210	1 994	2 034	2 078	2 208	6.2%
Jet fuel	652	757	653	640	639	523	-18.2%
Electricity	159	154	133	163	155	141	-9.3%


**Services&households**

Total	6 894	6 964	6 621	7 188	7 242	6 846	-5.5%
<i>among which:</i> Solid fuels	3	3	3	3	3	2	-39.9%
Gas oil	1 074	1 075	905	1 026	1 141	1 227	7.5%
Natural Gas	-	-	1	6	7	6	-11.1%
Renewables	629	596	603	603	604	701	16.0%
Electricity	4 919	4 995	4 852	5 243	5 152	4 539	-11.9%
Heat	101	113	109	141	148	161	8.5%


### 3.1 Electricity balance

 eurostat	NORGE						
	in GWh						
	1998	1999	2000	2001	2002	2003	03/02
<b>Generation</b>							
Total gross generation	116 983	122 722	143 028	121 890	130 705	107 268	-17.9%
<i>among which:</i>							
Hydro	116 259	121 887	142 266	121 026	129 837	106 095	-18.3%
Wind	7	25	31	27	75	220	193.3%
Geothermal	-	-	-	-	-	-	-
Nuclear	-	-	-	-	-	-	-
Conventional thermal	717	810	731	837	793	953	20.2%
<i>of which:</i>							
Hard coal	42	41	40	41	41	35	-14.6%
Lignite and peat	-	-	-	-	-	-	-
Petroleum products	-	-	-	-	-	-	-
Natural gas	222	281	211	270	198	299	51.0%
Derived gases	150	177	116	216	92	88	-4.3%
Biomass	296	112	173	190	282	400	41.8%
Industrial wastes	7	199	191	120	180	131	-27.2%
Total net generation	116 051	121 737	142 351	121 219	130 103	106 410	-18.2%
<b>Imports and exports</b>							
Total imports	8 046	6 857	1 474	10 745	5 335	13 422	151.6%
Total exports	4 412	8 776	20 529	7 174	15 046	5 548	-63.1%
<b>Consumption and losses</b>							
Consumption of the energy branch	2 153	2 124	-615	347	2 178	2 496	14.6%
<i>of which:</i>							
Consumption for pumped-storage	250	182	-2 677	-1 921	243	255	4.9%
Network losses	8 824	8 979	11 703	10 200	9 281	9 089	-2.1%
Final energy consumption	109 057	109 267	109 533	112 188	109 113	102 962	-5.6%
<i>of which:</i>							
Industry	50 001	49 376	51 566	49 324	47 397	48 536	2.4%
<i>among which:</i>							
Iron&steel industry	8 000	7 724	7 884	7 097	6 352	6 685	5.2%
Non-ferrous metals	18 820	18 881	19 205	19 103	18 809	20 630	9.7%
Chemical industry	7 809	7 141	7 760	7 499	6 808	6 753	-0.8%
Non-met. mineral prod.	924	914	904	833	843	785	-6.9%
Food, drink, tobacco	2 765	3 044	3 128	3 105	2 920	2 888	-1.1%
Pulp, paper and print	6 886	6 961	7 708	6 793	6 788	6 381	-6.0%
Engineering & metal	2 107	2 281	2 180	2 097	2 200	1 829	-16.9%
Other industries	1 974	1 777	2 077	2 115	2 037	1 979	-2.8%
Transport	1 844	1 795	1 542	1 890	1 804	1 637	-9.3%
Services & households etc.	57 212	58 096	56 425	60 974	59 912	52 789	-11.9%
<i>among which:</i>							
Households	34 378	35 046	34 641	35 876	34 647	30 765	-11.2%


## 3.2 Electrical capacity, fuel inputs and heat


		NORGE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Net electrical capacity</b>								
Total installed capacity	MW	27 915	28 487	28 409	27 960	28 247	28 247p	0.0%
<i>by source:</i>								
Conventional thermal		266	270	270	268	237	237p	0.0%
<i>of which:</i>								
Steam		0p	-	-	-	181	181p	0.0%
Gas turbine		0p	35	35	35	35	35p	0.0%
Combined cycle		0p	-	-	-	-	-	-
Internal combustion		0p	13	13	13	21	21p	0.0%
Nuclear		-	-	-	-	-	-	-
Hydro		27 645	28 203	28 126	27 679	27 913	27 913p	0.0%
<i>among which:</i>								
Pumped storage		663	663	695	1 360	1 652	1 652p	0.0%
Wind		4	14	13	13	97	97p	0.0%
Geothermal		-	-	-	-	-	-	-
Other		-	-	-	-	-	-	-
<i>by producer type:</i>								
Public system		25 724	25 830	26 300	26 516	27 308	27 308p	0.0%
Autoproducers		2 568	2 332	2 332	2 351	974	974p	0.0%
<b>Fuel consumption in electricity and heat production</b>								
Conventional thermal power plants	1 000 toe	143	136	143	160	137	215	57.3%
<i>among which:</i>								
Hard coal		16	17	16	17	16	14	-16.9%
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-
Natural gas		25	36	27	35	25	39	51.2%
Renewables		84	61	86	81	84	145	73.6%
Heating plants		120	118	99	121	134	172	28.8%
<i>among which:</i>								
Hard coal		-	-	-	-	-	-	-
Lignite and peat		-	-	-	-	-	-	-
Petroleum products		34	37	16	18	33	54	60.6%
Natural gas		1	2	3	2	4	6	49.0%
Renewables		71	68	68	87	85	107	25.4%
<b>Heat production and consumption</b>								
Total heat production	TJ	169	182	175	206	218	258	18.2%
<i>among which: in heating plants</i>								
		116	126	121	152	138	168	22.0%
Heat consumption		122	133	128	159	171	190	10.8%
<i>of which: in industry</i>								
		20	20	19	18	24	30	25.7%
<i>in households and services</i>								
		101	113	109	141	148	161	8.5%
<i>among which: in households</i>								
		26	28	20	28	29	32	12.4%

## 4.1 Crude oil and feedstocks

 eurostat	NORGE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production		149 826	149 350	160 990	162 536	156 716	151 201	-3.5%
Total imports		2 071	2 085	904	932	637	534	-16.2%
Total exports		137 093	136 323	146 172	151 426	139 684	135 252	-3.2%
Stock changes		250	-55	-65	2 004	-62	-833	-1243.5%
Refinery intake		14 891	15 368	15 076	14 367	13 372	14 936	11.7%
<b>Imports of Crude Oil by origin</b>								
<i>by region of origin:</i>								
OPEC		-	-	-	-	-	-	-
Near and Middle East		-	-	-	-	-	-	-
Africa		-	-	-	-	-	-	-
<i>by country of origin:</i>								
Algeria		-	-	-	-	-	-	-
Nigeria		-	-	-	-	-	-	-
Saudi Arabia		-	-	-	-	-	-	-
Kuwait		-	-	-	-	-	-	-
United Arab Emirates		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Refining capacity</b>								
Capacity at the end of year	1 000 t/year	-	-	-	-	-	-	-
<i>among which:</i>								
Cracking and others		-	-	-	-	-	-	-
Reforming		-	-	-	-	-	-	-


## 4.2 Petroleum products

 eurostat	NORGE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Production and supply</b>								
Total refinery output	14 799	15 335	15 196	13 773	13 035	14 645	12.4%	
<i>among which:</i>								
Motor spirit	3 215	3 202	3 385	3 287	2 920	3 546	21.4%	
Kerosene and jet fuel	880	876	812	665	582	611	5.0%	
Naphtha	744	886	1 161	920	1 126	1 135	0.8%	
Gas/diesel oil	6 824	7 253	6 916	6 478	6 010	6 635	10.4%	
Residual fuel oil	1 868	1 897	1 703	1 647	1 503	1 702	13.2%	
Total imports	3 232	3 210	3 626	3 596	3 891	3 925	0.9%	
Total exports	9 014	8 437	9 108	8 667	12 815	13 509	5.4%	
Bunkers	898	858	828	812	666	565	-15.2%	
Stock changes	130	32	232	195	22	-135	-713.6%	
Gross inland consumption	-6 550	-6 053	-6 078	-5 688	-9 568	-10 284	7.5%	
<b>Imports and exports</b>								
Imports by origin								
<i>among which:</i>								
Netherlands	93	197	136	91	113	179	58.4%	
United Kingdom	617	692	663	856	796	660	-17.1%	
Norway	-	-	-	-	-	-	-	
OPEC	-	-	-	-	-	-	-	
Imports by product								
<i>among which:</i>								
Motor spirit	472	341	622	407	434	310	-28.6%	
Kerosene and jet fuel	245	283	207	233	601	285	-52.6%	
Gas/diesel oil	491	389	649	917	536	777	45.0%	
Residual fuel oil	988	1 164	1 039	1 135	1 065	1 437	34.9%	
Exports by product								
<i>among which:</i>								
Motor spirit	1 885	1 840	2 016	2 214	2 047	2 411	17.8%	
Kerosene and jet fuel	226	200	216	118	116	101	-12.9%	
Gas/diesel oil	3 760	3 484	3 459	3 005	2 443	2 727	11.6%	
Residual fuel oil	1 428	1 638	1 544	1 211	1 546	1 809	17.0%	
<b>Consumption</b>								
Inputs to electricity plants	-	-	-	-	-	-	-	
Inputs to heating plants	34	37	16	18	33	53	60.6%	
Non-energy use	1 548	1 449	1 498	1 793	1 889	2 118	12.1%	
Final energy consumption	6 372	6 606	6 005	6 273	6 397	6 707	4.8%	
Industry								
<i>among which by product:</i>								
Gas/diesel oil	268	387	368	353	356	409	14.9%	
Residual fuel oil	311	281	180	251	201	233	15.9%	


 eurostat	NORGE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Industry</b>								
<i>among which by sector:</i>								
Iron&steel industry		11	10	13	15	15	21	40.0%
Non-ferrous metals		52	64	69	55	40	58	45.0%
Chemical industry		92	87	153	152	141	150	6.4%
Non-met. mineral prod.		81	77	75	67	69	91	31.9%
Food, drink, tobacco		161	154	115	107	119	171	43.7%
Pulp, paper and print		176	138	97	151	136	153	12.5%
Engineering & metal		43	48	28	47	45	56	24.4%
Other industries		58	158	147	153	151	136	-9.9%
<b>Transport</b>		4 453	4 584	4 226	4 303	4 327	4 410	1.9%
<i>among which:</i>								
Motor spirit		1 672	1 648	1 601	1 661	1 644	1 626	-1.1%
Jet fuel		635	737	636	623	622	509	-18.2%
Diesel oil		2 128	2 187	1 974	2 013	2 057	2 185	6.2%
<b>Services &amp; households etc.</b>		1 226	1 241	1 040	1 176	1 309	1 417	8.3%
<i>among which:</i>								
Gas oil		1 063	1 064	896	1 016	1 129	1 214	7.5%
Residual fuel oil		4	2	1	3	1	5	400.0%
<b>Stocks at end of period</b>								
Crude oil and feedstocks		-	-	-	-	-	-	-
Petroleum products		-	-	-	-	-	-	-




## 5. Natural gas

 eurostat	NORGE							
	in TJ (GCV)		1998	1999	2000	2001	2002	2003
<b>Primary production and supply</b>								
Primary production		1 923 819	2 053 293	2 131 427	2 274 458	2 752 407	3 083 811	12.0%
Total imports		-	-	-	-	-	-	-
Total exports		1 723 495	1 832 004	1 962 454	2 022 071	2 466 707	2 834 257	14.9%
Stock changes		-	-	-	-	-	-	-
Gross inland consumption		200 324	221 289	168 973	252 387	285 700	249 554	-12.7%
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
CIS		-	-	-	-	-	-	-
Algeria		-	-	-	-	-	-	-
Norway		-	-	-	-	-	-	-
<b>Consumption</b>								
Inputs to electricity plants		1 143	1 684	1 269	1 622	1 186	1 793	51.2%
Inputs to heat plants		52	105	126	105	194	289	49.0%
Consumption of energy branch		199 129	219 500	140 101	137 442	142 428	149 119	4.7%
Distribution losses		-	-	-	-	-	-	-
Non-energy use		-	-	19 392	23 135	17 074	24 173	41.6%
Industry		-	-	8 006	7 481	5 951	7 901	32.8%
<i>among which:</i>								
Iron&steel industry		-	-	-	-	-	-	-
Non-ferrous metals		-	-	796	1 181	1 149	1 199	4.4%
Chemical industry		-	-	6 729	5 861	4 038	6 131	51.8%
Non-met. mineral prod.		-	-	-	-	-	-	-
Food, drink, tobacco		-	-	345	277	337	145	-57.0%
Pulp, paper and print		-	-	-	-	229	261	14.0%
Engineering & metal		-	-	12	31	15	25	66.7%
Other industries		-	-	124	129	127	127	0.0%
Transport		-	-	24	59	136	285	109.6%
Services & households etc.		-	-	55	294	325	289	-11.1%
<i>among which:</i>								
Households		-	-	5	95	91	95	4.4%
Services		-	-	50	199	234	194	-17.1%


## 6.1 Hard coal


 eurostat	NORGE							
	in 1 000 t	1998	1999	2000	2001	2002	2003	03/02
<b>Primary production and supply</b>								
Primary production	328	404	632	1 788	2 132	2 944	38.1%	
Total imports	967	914	920	825	655	671	2.4%	
Total exports	291	288	574	1 497	2 050	2 697	31.6%	
Stock changes	19	19	58	-201	81	-106	-230.9%	
Gross inland consumption	1 023	1 049	1 036	915	818	812	-0.7%	
<b>Imports</b>								
Imports by origin								
<i>among which:</i>								
USA	-	-	-	-	-	-	-	
Poland	-	-	-	-	-	-	-	
CIS	-	-	-	-	-	-	-	
Australia	-	-	-	-	-	-	-	
South Africa	-	-	-	-	-	-	-	
Colombia	-	-	-	-	-	-	-	
<b>Consumption</b>								
Inputs to electricity plants	24	25	23	26	24	20	-16.7%	
Inputs to heat plants	-	-	-	-	-	-	-	
Consumption of energy branch	-	-	-	-	-	-	-	
Industry	1 013	973	960	850	753	730	-3.1%	
<i>among which:</i>								
Iron&steel industry	456	477	467	389	346	313	-9.5%	
Non-ferrous metals	-	-	-	-	-	-	-	
Chemical industry	206	217	223	205	161	175	8.7%	
Non-met. mineral prod.	343	275	266	252	246	242	-1.6%	
Food, drink, tobacco	-	-	-	-	-	-	-	
Pulp, paper and print	6	-	-	-	-	-	-	
Engineering & metal	2	2	2	1	-	-	-	
Other industries	-	-	-	-	-	-	-	
Services & households etc.	4	3	3	3	2	1	-50.0%	
<b>Structural data</b>								
Personnel employed underground (annual mean in 1000's)	-	-	-	-	-	-	-	
Number of active hard coal mines (end of year)	-	-	-	-	-	-	-	

## 6.2 Coal derivatives and peat

	NORGE						
	1998	1999	2000	2001	2002	2003	03/02
<b>Production</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	-	-	-	-	-	-	-
Patent Fuel	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<b>Derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	1 888	1 791	1 491	1 900	988	1 132	14.6%
Gasworks gas	-	-	-	-	-	-	-
<b>Consumption</b>							
<b>Solid fuels</b>	<i>in 1 000 t</i>						
Coke	532	491	530	396	396	380	-4.0%
<i>among which:</i>							
Iron & steel industry	449	425	461	323	343	328	-4.4%
Services & households	1	1	1	1	3	2	-33.3%
Patent Fuel	-	-	-	-	-	-	-
<i>among which:</i>							
Services & households	-	-	-	-	-	-	-
Lignite and peat	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
Brown coal briquettes	-	-	-	-	-	-	-
<i>among which:</i>							
Industry	-	-	-	-	-	-	-
Services & households	-	-	-	-	-	-	-
<b>Total derived gases</b>	<i>in TJ (GCV)</i>						
Coke-oven gas	-	-	-	-	-	-	-
Blast-furnace gas	906	750	742	677	432	591	36.8%
Gasworks gas	-	-	-	-	-	-	-
Inputs to electricity plants	773	911	607	1 112	475	451	-5.1%
Inputs to heat plants	19	17	10	23	11	2	-81.8%
Consumption of energy branch	-	-	-	-	-	-	-
Consumption in industry	906	750	742	677	432	591	36.8%

## 7. Renewable energy sources

		NORGE						
		1998	1999	2000	2001	2002	2003	03/02
<b>Primary production</b>								
Total primary production	<i>in 1000 toe</i>	11 225	11 952	13 291	11 838	12 539	10 555	-15.8%
Hydro (excl. pumping)		9 946	10 443	11 945	10 354	11 128	9 071	-18.5%
Wind		1	2	3	2	6	19	193.3%
Solar		0	-	-	-	-	-	-
Geothermal		-	-	-	-	-	-	-
Biomass		1 278	1 507	1 344	1 481	1 404	1 464	4.3%
<i>among which:</i>								
Wood, wood-waste		1 137	1 343	1 194	1 337	1 244	1 248	0.3%
Municipal solid waste		116	138	124	120	134	190	42.2%
Biogas		25	26	26	8	25	26	3.9%
Gross inland consumption		11 225	11 963	13 296	11 851	12 557	10 607	-15.5%
<b>Inputs to electricity and heat production</b>								
	<i>in 1000 toe</i>							
Geothermal		-	-	-	-	-	-	-
Biomass		156	129	154	168	169	252	49.2%
<i>among which:</i>								
Wood, wood-waste		40	36	35	49	52	62	17.7%
Municipal waste		116	120	119	117	116	190	63.5%
Biogas		0	1	0	0	0	0	-14.3%
<b>Final consumption of RES (excl. electricity)</b>								
Total	<i>in 1000 toe</i>	1 122	1 378	1 195	1 311	1 236	1 267	2.6%
<i>by sector:</i>								
Industry		494	782	592	708	631	566	-10.3%
Services & households etc.		629	596	603	603	604	701	16.0%
Transport		-	-	-	-	-	-	-
<i>by source:</i>								
Biomass		1 122	1 378	1 195	1 311	1 236	1 267	2.6%
<i>among which:</i>								
Wood, wood-waste		1 097	1 335	1 165	1 301	1 211	1 240	2.4%
Municipal waste		-	18	5	3	18	19	9.6%
Biogas		25	26	26	8	8	8	4.5%
Geothermal		-	-	-	-	-	-	-
<b>Electricity generation from RES</b>								
	<i>in GWh</i>							
Solar photovoltaics		3	-	-	-	-	-	-
Hydro with installed capacity < 1 MW		422	188	234	202	213	148	-30.5%
Hydro with installed capacity > 1 & <10 MW		4 143	4 273	4 317	3 742	4 443	3 187	-28.3%
Hydro with installed capacity > 10 MW		110 793	105 664	134 364	116 473	124 593	102 165	-18.0%
Wood, Wood-waste		244	112	113	132	216	264	22.2%
Municipal waste		166	-	60	58	66	136	106.1%
Biogas		-	-	-	-	-	-	-

	NORGE						
	1998	1999	2000	2001	2002	2003	03/02
<b>Electrical capacities of RES</b>							
	<i>in MW</i>						
Solar photovoltaics (peak)	-	-	-	-	-	-	-
Hydro with installed capacity < 1 MW	123	44	48	48	48p	48p	0.0%
Hydro with installed capacity > 1 & <10 MW	905	843	843	843	843p	843p	0.0%
Hydro with installed capacity > 10 MW	26 401	26 653	25 875	25 875	25 875p	25 875p	0.0%
Wood, Wood-waste	126	141	35	35	35p	35p	0.0%
Municipal waste	-	-	-	-	-	-	-
Biogas	-	-	-	-	-	-	-
<b>Liquid biofuels</b>							
Production	<i>1000 t</i>						
	-	-	-	-	-	-	-
<b>Solar Panels</b>							
Solar panel surface	<i>1000 m<sup>2</sup></i>						
	-	-	-	-	-	-	-