





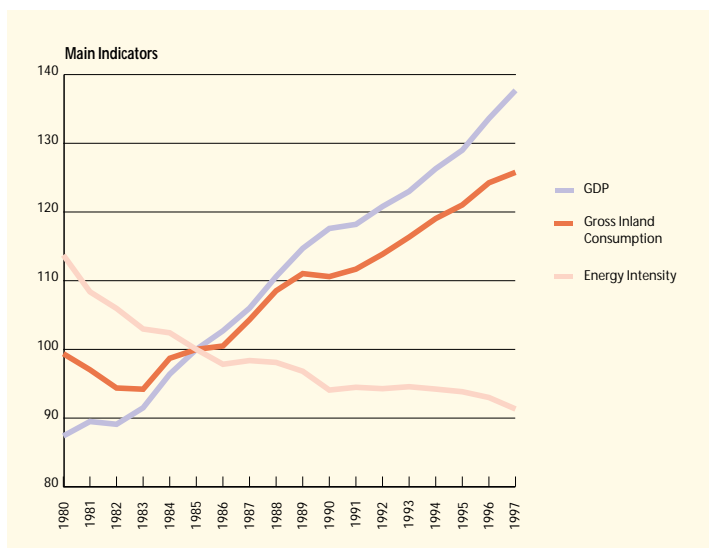
Other OECD countries: Major trends (1985-1997)

- Strong economic growth in 1996 and 1997 driven by the United States but Japan slowed down in 1997
- Final energy demand showed an accelerating growth rate since 1994 but slowed down in 1997
- Since 1980, oil and gas contributions to final energy demand slowly declined
- Transport contributed to 40% of final energy demand under the pressure of NAFTA region
- Electricity's contribution has continued to increase slowly, with wide regional differences
- Gross inland energy consumption dominated by the United States
- Oil and gas covered about 60% of incremental gross inland consumption since 1985
- Indigenous energy production increased almost as fast as gross inland consumption
- Gas infrastructure in the NAFTA region continued to increase rapidly to meet the demand
- Increasing coal production will be challenged by environmental regulations
- Nuclear production slowed down both in the United States and Canada but Japan continued to increase
- The whole region represented 25% of the world's fossil fuel reserves, principally solid fuels
- Since 1995, thermal units covered all the incremental electricity demand
- Solid fuels still increased their share in thermal power stations
- Deregulation of electricity markets generalised in North America and Japan
- NAFTA refinery capacity is well adapted to the regional markets, unlike the Japanese
- Energy intensity improved again since 1994 at about -1.0% per year on average
- Energy consumption per capita peaked in the United States, at twice the Japanese level
- The United States presented the lowest energy prices in OECD by far
- CO₂ emissions increased by 12% since 1990
- Transport and power generation sectors were responsible for about 65% of CO₂ emissions
- The region remained a net importer of hydrocarbons but a net exporter of solid fuels

"Other OECD countries" is a global heading embracing: the NAFTA region of the USA, Canada and Mexico; the EFTA region comprising Norway, Switzerland and Iceland; the OECD Pacific region covering Australia, Japan and New Zealand; and Turkey. The new members (the Czech Republic, Hungary, Poland and South Korea) are still considered in their original region to improve the coherence of the analysis. Each of these groups is rather heterogeneous from a sociological, political and macro-economic point of view.

Strong economic growth in 1996 and 1997 driven by the United States but Japan slowed down in 1997...

The global GDP increased by about 3% during the eighties, falling under 2% on average between 1990 and 1995, to rebound above 3% in 1996 and 1997. The economic activity of the NAFTA region is largely dominated by the United States contributing up to 87% of the region's GDP in 1997, with only 9% by Canada and 4% by Mexico. In the last two years, the region was characterised by a remarkable sustained economic growth. Given the size of its economy, population and energy needs, Japan dominated the OECD Pacific region. In 1997, Japan contributed to 89% of the region's GDP. Japanese GDP growth, above 4% per year on average during the 80's, was hit by a severe slowdown since 1991. The recent Asian financial crisis cut Japanese economic growth to just 0.8% in 1997. The economic links with the developing Asian countries and China have strong impacts on Japan's economy and energy sector. The economic environment of the EFTA region was marked by a GDP growing on average by 2.2% in the last two years, under the leadership of Norway and influenced by the increasing production of hydrocarbons in the North Sea. Turkey, which had remarkable annual GDP growth above 7% since 1995, rebounded successfully after the 1994 recession caused by internal political problems.





REGIONAL GDP EVOLUTION											
Billions 1990 EUR	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
Annual % Change											
EFTA	221.8	244.7	275.0	292.6	298.8	306.1	2.0%	2.4%	1.2%	2.1%	2.4%
NAFTA	3887.3	4387.8	5019.2	5545.1	5735.4	5966.9	2.5%	2.7%	2.0%	3.4%	4.0%
OECD Pacific	1774.8	2092.7	2599.2	2814.0	2923.3	2954.0	3.3%	4.4%	1.6%	3.9%	1.0%
Turkey	71.2	90.3	118.4	138.6	148.3	159.5	4.9%	5.6%	3.2%	7.0%	7.5%
Total	5955.1	6815.5	8011.8	8790.3	9105.8	9386.4	2.7%	3.3%	1.9%	3.6%	3.1%

ENERGY OUTLOOK

Final energy demand demonstrated an accelerating growth rate since 1994 but slowed down in 1997...

The **final energy demand**, mainly characterised by the NAFTA region absorbing 77% of consumption in 1997 (82% in 1980), demonstrated an accelerating growth rate since 1980. The exception is the OECD Pacific region where the increase peaked during the second part of the 80's but slowed down during the 90's due to the performance of the Japanese economy. Between 1990 and 1993, a general slowdown was observed in all regions as a result of the weakness of the economy in the OECD. The 1994 economic resurgence induced a rebound of final energy consumption growth that peaked with a 2.7% increase boosted by the cold weather conditions in the Western Hemisphere in 1996. In 1997, all regions benefited from warmer climatic conditions resulting in reduced heating requirements of more than 2% that limited the growth of final energy demand to 0.6% for the region as a whole.

Between 1980 and 1993 final consumption remained apparently stable in the United States. This is only due to the fact that until 1988 electricity generated by autoproducers was accounted for at the final consumption stage in terms of fuel inputs, rather than as generated electricity and heat. Between 1989 and 1993 these inputs have been progressively better identified statistically and allocated to electricity production. This means that final energy demand in the United States was over-estimated (by up to 60-90 Mtoe) before 1993 and, as a consequence, the growth rate of final energy demand was under-estimated mainly during the 80's.

Since 1980, oil and gas contributions to final energy demand slowly declined...

Final energy demand is largely dominated by hydrocarbons. Since 1980, the oil products and gas contributions have decreased slowly: from 52% to 50% for oil and 23% to 21% for gas. The share of oil products in total final demand remained stable in the United

Main items

The 'Other OECD' countries, as defined in this report, comprise nearly 615 millions people, or some 11% of the world's total population; and include virtually all the most advanced industrialised economies, outside the European Union. With the highest average incomes and amongst the largest per capita levels of energy consumption, these OECD countries now account for 34% of total world energy consumption and 35% of global CO₂ emissions. They also undertake a very high share of total research and development; and dominate overseas direct investment and the world's financial markets. As a result they are vulnerable to any major global financial or trade disruptions although, with the exception of Japan, this region has been largely unaffected by the recent crises. Key current policy issues include liberalisation and structural reform of their energy sectors, especially gas and electricity; formulating an effective response to a range of environmental issues, particularly greenhouse gas emissions; tackling sustained growth in transportation and its associated impacts; and - in future, as overall regional import dependency increases - ensuring adequate energy supply security. Growth rates for most of these countries will remain relatively modest and stable given their economic maturity. As a consequence, the 'Other OECD' countries' share of world economic activity, energy use and environmental emissions will continue to decline steadily as the African, east European, Latin American and, especially, Asian regions develop in the longer term at a faster overall rate.

States which absorbed more than 65% of oil consumption. But some significant reductions were observed mainly in Canada (from 50% in 1980 to 38% in 1997), Norway (from 46% to 37%) and Japan (from 63% to 58%). The gas market share declined slowly in NAFTA, from 26.7% to 25.2% despite the 1992 liberalisation of the gas market in the United States. At present, about half



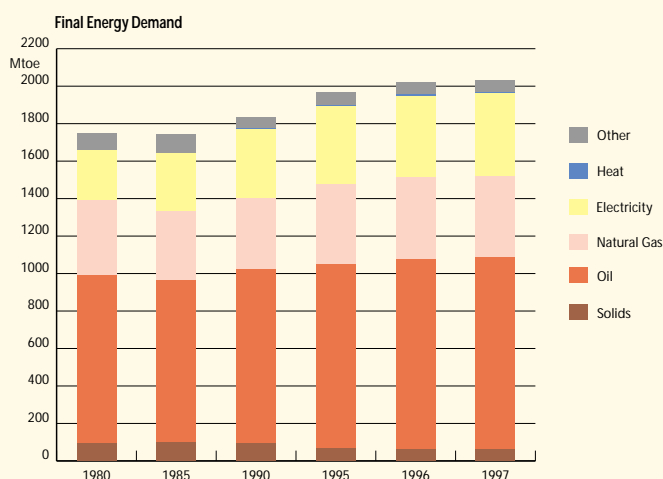
FINAL ENERGY DEMAND BY REGION

Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
							Annual % Change				
EFTA	33.0	35.7	36.9	38.6	39.6	39.2	1.6%	0.7%	0.9%	2.5%	-1.0%
NAFTA	1432.2	1405.6	1433.5	1530.3	1569.7	1577.5	-0.4%	0.4%	1.3%	2.6%	0.5%
OECD Pacific	258.3	273.0	321.0	357.6	366.2	369.3	1.1%	3.3%	2.2%	2.4%	0.8%
Turkey	25.7	29.5	37.3	43.9	47.7	49.3	2.8%	4.8%	3.3%	8.8%	3.3%
Total	93.7	98.7	97.7	68.0	66.6	68.0	1.0%	-0.2%	-7.0%	-2.1%	2.1%

of all final gas sales in the United States are made by suppliers other than the local distribution company. More importantly, large industrial customers can already switch suppliers in some 75% of cases. But this liberalisation has only favoured gas to gas competition, as the gas market share has remained stable since 1992. This contrasts with the evolution in the OECD Pacific region where the gas market is still under development. The gas share in this region reached only 9% of total final demand in 1997 (6% in 1980). But, in the main markets, Japan and Australia, gas competition was affected by the additional costs related to LNG infrastructures. Electricity consumption grew by about 2.9% per year on average since 1980, the growth rate being more sustained in the OECD Pacific region (+3.5% on average) than in NAFTA (+2.7%) or EFTA (+2.0%). Thus about 60% of the incremental demand for energy was covered by electricity alone. Solid fuels and biomass covered the rest of the consumption but their contributions remained quite marginal, declining from 10% in 1980 to only 6% in 1997. As they are mainly consumed in the United States by industrial electricity autoproducers, the modification of statistical allocations pushed their apparent consumption to below the 1993 levels.

Transport contributed to 40% of final energy demand under the pressure of the NAFTA region...

Industry, including US electricity autoproducers before 1992, made the major contribution to final energy demand in 1980 with a 34% share. Its contribution has dropped progressively to 27% in 1997. But industrial shares varied significantly from region to region: 24.6% in NAFTA with a minimum of 22.8% in the United States, 26.3% in EFTA and 34.3% in OECD Pacific. Despite sustained economic activity, industrial energy consumption grew by only 1.3% in 1996 and 0.9% in 1997. The increasing predominance of less energy-intensive industries contributed to this evolution as well as the declining trend of energy intensities in many heavy industrial sectors. Over the same period, transport climbed from 33% of final energy consumption in 1980 up to 40% in 1997, easily becoming the major energy consuming sector. This was mainly under the pressure of NAFTA, where transport represented 42% of total final demand in 1997 against 33% in OECD Pacific and only 30% in EFTA. This is due to the very high level of motorization reached in the NAFTA region, reinforced by longer distance travel than in the other regions. In the OECD Pacific region, in particular Japan, a recent switch to larger cars has been observed. The share of Japanese passenger cars with an engine capacity greater than 2000cc increased from 4.1% in 1980 to 21.1% in 1996. As a consequence, the contribution of transport to oil consumption by final consumers reached 76% in the OECD region as a whole in 1997 with a maximum of 82% in NAFTA compared to only 58% in both OECD Pacific and EFTA. The share of the tertiary and domestic sector was essentially unchanged, at between 32% and 34% of the total over the whole period. The highest contribution occurred in EFTA for climatic reasons (43% of final consumption in 1997) and the lowest in the OECD Pacific region (32% of final consumption) due to the limited size of households.





Electricity's contribution has continued to increase slowly, with wide regional differences

Electricity's share in final consumption reached 20% in 1990 from 15% in 1980 and continued to increase slowly to reach a little lower than 22% in 1997. EFTA, benefiting from much low-cost hydro power, had the largest contribution of electricity with about 34%, followed by the OECD Pacific region with 26% and finally NAFTA with only 21% as a result of the larger contribution of the transport sector. The highest contributions occurred in the EFTA region with 55% in industry and 44% in the tertiary-domestic sector respectively as a result of low electricity prices. The two other regions were relatively homogeneous: about 32% for industry and 40% for tertiary-domestic. The increasing contribution of electricity in industry resulted from improved automation and control, development of electro-technologies and an industrial production more oriented to high-added-value products. In the tertiary-domestic sector, driven by high living standards, electricity's contribution continued to grow because - even though the market for classical appliances was close to saturation - other markets such as air conditioning and microcomputers were developing rapidly.

Gross inland energy consumption dominated by the United States...

Gross inland energy consumption showed a steady annual increase of about 1.9% since 1985 after the stagnation observed during the first part of the 80's; this evolution was dictated by the United States, the largest economy in the world with about 23% of world energy consumption. Furthermore, this growth was not equally spread over all primary fuels and regions. The lowest growth occurred in the EFTA region, at only 1.3% per year over the period 1985-1997, despite an acceleration in 1997. The NAFTA region followed with growth of 1.7% per year on average. Even Mexico, which can still be associated with developing countries, limited its growth to an average of 2.0% per year. In the OECD Pacific, where industrial development continued to increase sharply during the 1980's, accompanied by improving living stan-

dards, the increase reached 2.8% per year over the same period. Finally Turkey, a country still under major development, increased its consumption by about 83% since 1985.

Oil and gas covered about 60% of incremental gross inland consumption since 1985...

Solid fuel demand, which increased by about 3.0% in the first part of the 80's, continued to grow by 1.4% per year on average since then; but jumped by 4.8% in 1996 and 3.5% in 1997 due to increasing demand from the US power sector. This represented about 21% of total gross inland consumption, a constant share since 1990. Coal consumption is concentrated in the United States, which accounted for about three-quarters of the regional total since 1980. With its substantial reserves, the United States has come to rely heavily on coal for electricity generation and will continue to do so in the near future. Although there was a drop in demand for oil and gas between 1980 and 1985, the use of both these energy sources has increased regularly since then. Oil grew on average by 1.6% per year since 1985 to contribute 42% of total consumption in 1976 (49% in 1980) under the pressure of OECD Pacific region (+2.4% per year on average) and Turkey (+4.7%). Since 1985, the annual growth of gas consumption reached an average of 2.2% with a peak of 3.8% in the OECD Pacific where gas use increased both for final energy uses and power generation. In the United States, which absorbed about 73% of the whole region's consumption and 27% of total world consumption in 1997, gas use grew by 1.8% per year on average since 1985 but has remained stable since 1995. Non-fossil fuels grew continuously to reach 16% of total consumption in 1996 against 10% in 1980 but slowed down to grow by 2.9% in 1997, due to a general decline registered in the United States: -6.8% for nuclear, -and 5.8% for hydro and biomass. Since 1985, incremental gross inland consumption has been covered as follows: 35% by oil, 24% by gas, 19% by solid fuels, 17% by nuclear and 5% by other renewable sources. This evolution differs notably from the European Union where solid fuels have lost 30% of their market since 1985 and gas covered 63% of the incremental gross inland consumption.

GROSS INLAND CONSUMPTION BY REGION

Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
							Annual % Change				
EFTA	41.2	45.1	48.6	50.9	51.5	52.8	1.9%	1.5%	0.9%	1.3%	2.4%
NAFTA	2103.6	2086.5	2259.6	2454.4	2511.9	2541.7	-0.2%	1.6%	1.7%	2.3%	1.2%
OECD Pacific	430.4	452.4	540.1	607.0	627.8	633.2	1.0%	3.6%	2.4%	3.4%	0.9%
Turkey	31.3	38.9	52.5	62.2	67.7	71.3	4.4%	6.2%	3.4%	8.8%	5.4%
Total	2606.6	2623.1	2900.9	3174.6	3259.1	3299.2	0.1%	2.0%	1.8%	2.7%	1.2%



Indigenous energy production increased almost as fast as gross inland consumption...

Indigenous **energy production**, showing significant improvement in the three main regions, increased almost as fast as gross inland consumption. **Oil** contributed 885 Mtoe or 31% of all energy produced in the whole region. In absolute terms, the production of oil declined in the NAFTA region between 1985 and 1995 but increased again by 1.1% in 1996 and 1.8% in 1997. In fact, the United States' production has been reduced by 16% between 1985 and 1990 due to the closure of numerous small independent producers whose profitability was threatened by low oil prices. After 1990 the reduction of US production (-35 Mtoe) was largely compensated by Canada (+25 Mtoe, or a 27% increase since 1990), and Mexico (+18 Mtoe) which significantly increased its production in these last two years. In EFTA, the major evolution occurred in Norway where oil production has quadrupled since 1985, making it the eighth world producer. The production in the OECD Pacific region, mainly located in Australia, remained marginal.

Gas infrastructure in the NAFTA region continued to increase rapidly to meet the demand...

Natural gas production was reduced between 1980 and 1985 by 1.9% per year on average and since then increased continuously to reach a peak of 681 Mtoe in 1997. Gas production was mainly located in the United States (442 Mtoe) and Canada (137 Mtoe), the first and third world producers respectively. 79% of the incremental production since 1985 came from NAFTA, almost equally distributed between the United States and Canada, which has doubled its production since 1985. Infrastructure expansion is underway and expected to continue throughout North America to facilitate trans-national exchanges to meet the increasing demand. More than 40 pipeline construction projects, including 10 new ones, were completed in the United States in 1997. Two new gas export lines from the United States to Mexico, totalling 237 million cubic feet per day of new capacity, were also put in service in 1997 to help meet Mexico's anticipated growth in consumption. Australian and Norwegian gas production also contin-

ued to grow: Australian production steadily increased since 1985 to finally double in 1997. Norwegian production only grew since 1990 with spectacular jumps by 32% in 1996 and 10% in 1997. The Norwegian export market is totally oriented towards the European Union.

Increasing coal production will be challenged by environmental regulations...

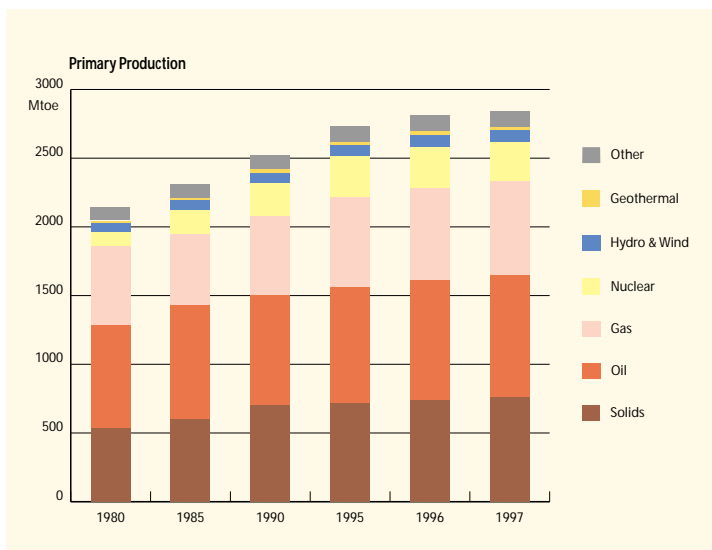
Solid fuel production grew on average by 2% per year since 1985. Additional contribution came mainly from the United States (+107 Mtoe since 1985) and Australia (+58 Mtoe), the second and the fourth world producers respectively. The United States, after relative stagnation between 1990 and 1995, again increased its production by 2.9% in 1996 and 2.7% in 1997. Australian production increased on average by 4.6% per year since 1985. These two countries were both net exporters of solids fuels. Exports represented 8.2% of US production and 68% of Australian production. In the future, environmental regulation, in particular the application of the Kyoto Protocol in industrialised countries, will represent a major challenge for coal markets in many areas of the world, particularly in the OECD countries that have agreed to reduce their greenhouse gas emissions to below 1990 levels. Between 2008 and 2012, the United States must reduce its emissions by 8% from 1990 levels, and Japan by 6%.

Nuclear production slowed down both in United States and Canada but Japan continued to increase...

Nuclear energy accounted for 10% of total production in 1997 against 5% in 1980. Nuclear was mainly expanded in the United States and Japan during the 80's showing a 8.5% annual increase of its contribution. Since 1990 its use has continued to increase at about 7% per year in Japan but by only 2.7% per year in the NAFTA region caused by a continuous decline in Canada, -22% since 1994, and a first decrease of 7% in the United States in 1997. Japan has ambitious plans for further nuclear expansion, mainly as a means of reducing its dependence on imported fossil fuels. However, the uncertainties surrounding financial markets in Asia, as well as increased public opposition to nuclear power, will affect

PRIMARY ENERGY PRODUCTION BY REGION

Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
Annual % Change											
EFTA	63.6	83.4	131.2	194.7	220.5	225.1	5.6%	9.5%	8.2%	13.2%	2.1%
NAFTA	1910.0	2005.5	2117.5	2215.0	2257.7	2269.6	1.0%	1.1%	0.9%	1.9%	0.5%
OECD Pacific	139.1	201.9	244.9	298.2	305.7	320.3	7.7%	3.9%	4.0%	2.5%	4.8%
Turkey	17.2	21.7	25.7	26.1	26.8	27.6	4.7%	3.5%	0.4%	2.4%	2.9%
Total	2129.9	2312.6	2519.3	2734.0	2810.6	2842.6	1.7%	1.7%	1.6%	2.8%	1.1%



new construction decisions. The deregulation of the electricity industry in the United States is affecting the nuclear industry in different ways: some units have been shut down prematurely; others have been sold; and still others are expected to continue operating beyond current retirement dates. In 1997 two reactors were shut down permanently. In Canada, Ontario Hydro, the operating utility for the majority of the nuclear units, has begun an extensive programme to improve the performance of its nuclear plants. Seven of the oldest units have been shut down, five of them in 1997 and two in 1998. The units may be refurbished and brought back on line eventually.

Renewable energy, 7.5% of the primary energy production in 1980, did not significantly improve its share, reaching only 8.0% in 1997. Hydro and wind grew very slowly since 1985, despite the impressive development of wind energy in the United States, especially in California. The contribution of geothermal energy was multiplied by three during the 80's but has remained rather stable since then. Other sources, mainly biomass, made a constant contribution of about 100 Mtoe since 1985. Biomass production was mainly located in the United States and used to supply electricity producers.

The whole region represented 25% of the world's fossil fuel reserves, principally solid fuels...

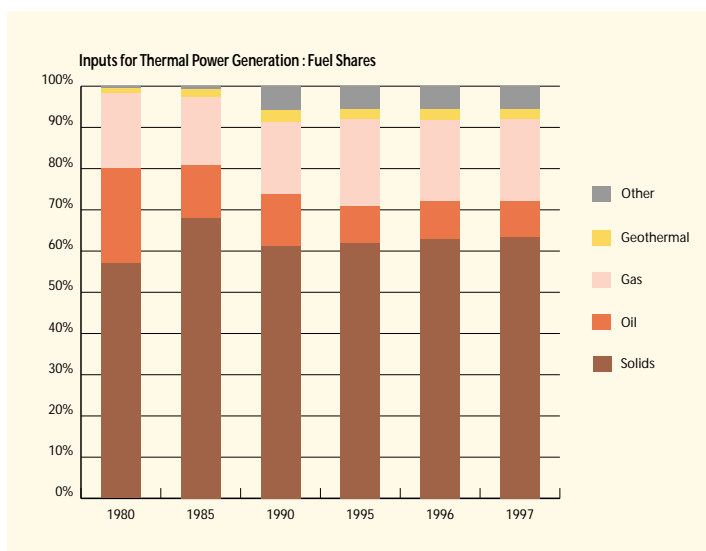
In late 1997, Asian oil reserves amounted to about 8.2% of world reserves, mostly (2.3%) located in the NAFTA region but the oil reserves/production ratio was only 16 years, significantly below the world average. The situation for gas reserves was quite similar, with about 7.2% of world reserves. Finally, coal reserves, mainly located in the United States (23.3%), and Australia (8.8%), accounted for 33.1% of world reserves. As a result of this, the region represented 25.4% of total world fossil fuel reserves.

Since 1995, thermal units covered all the incremental electricity demand...

Electricity generation grew at an annual average rate of 3.0% since 1985. But the growth declined from 3.9% per year on average during the second part of the 1980's to 2.3% during the 1990's and reached only 1.5% in 1997. Thermal power stations covered 64% of the production in 1997 (68% in 1980) with nuclear and hydro accounting for 19% and 17% of total production respectively. These shares have remained stable since 1990, with nuclear becoming more important than hydro in the late 80's. Since 1985, thermal units have covered 66% of the incremental production, nuclear 26% and hydro only 8%. But since 1995, all the production growth was covered by thermal, the fall in nuclear production being barely compensated by growth in hydro and wind. The installed capacity reached 1300 GWe in 1997 compared to 917 GWe in 1980 and 1164 GWe in 1990. Since 1980 nuclear capacity has doubled. Hydro capacity expanded by 2% per year on average between 1985 and 1995 but has remained stable since then. In particular the development of wind power in the United States, the largest world market, has slowed since 1996; new investment being compensated by the closure of old or inefficient units. On the other hand, thermal power increased by 1.3% per year on average since 1985. But this growth was accelerating during the 90's due to the limited investment in nuclear and hydro. The growth of power capacity is not uniform across the whole region. The fastest increase occurred in Turkey with about 7.5% per year on average since 1985. OECD Pacific, dominated by Japan, grew at 2.7% per year and NAFTA at only 1.1% with two extremes: Mexico at 4.0% since 1985 and the United States at only 0.9%.

Solid fuels still increased their share in thermal power stations...

Solid fuels remain the main energy source for thermal power stations (64% of thermal input in 1997 versus 57% in 1980) as a result





of the fuel preferences of US electricity producers. The contribution of oil (9% in 1997) which declined during the oil crisis in the early 1980's, to the benefit of biomass and geothermal energy, dropped again in 1995 after some signs of recovery in the beginning of the 90's, due this time to environmental pressures. The development of gas use has indeed been very important since 1985. Gas consumption increased by 75% since 1985 to reach 182 Mtoe despite a relative stability since 1995. Growth in gas consumption occurred mainly in the NAFTA region where it represented about 18% of all fuel inputs thanks to the large indigenous production and the liberalisation of the gas market in the United States at the beginning of the 1990's. Since 1990 it increased by only 17% in the OECD Pacific region due to non-competitive prices of LNG imported gas for the Japanese electricity market. For this reason, in Japan, the contribution of oil products was still higher than gas. For the OECD as a whole, the share of gas in thermal power stations reached about 20% in 1997, against 17% in 1990, making it the second energy source but far behind solid fuels.

Deregulation of electricity markets generalised in North America and Japan...

Electric utility regulatory reform is underway throughout North America. In the United States and Canada the driving force for reform is the expectation that increased competition will lower costs of electricity supply. In the United States, reforms are being carried out at both the federal and state levels. The latest regulations concern open access, additional guidelines for the recovery of stranded costs and the establishment of electronic systems on the availability of transmission capacity. The reforms should also serve to integrate more closely the US and Canadian electricity markets. In May 1997, the Japanese Cabinet approved an Action Plan for Economic Structure Reform, in which deregulation measures were proposed as a means of promoting market mechanisms. The Action Plan aimed to ensure, through competition, that the electricity, gas and petroleum industries provide services at an international standard of performance, including costs, by 2001.

NAFTA refinery capacity is well adapted to the regional markets, unlike the Japanese...

The **refinery capacity** remained globally stable in the whole region since 1985. About 24% of world capacity was located in the NAFTA region, principally in the United States, but this capacity was just sufficient to cover the needs of the region. Regional utilisation rates increased regularly from 78% in 1985 to 86% in 1990 and 93% in 1997. This guaranteed sufficient profitability for the regional refineries to finance the additional investment required to adapt the production to a demand increasingly oriented

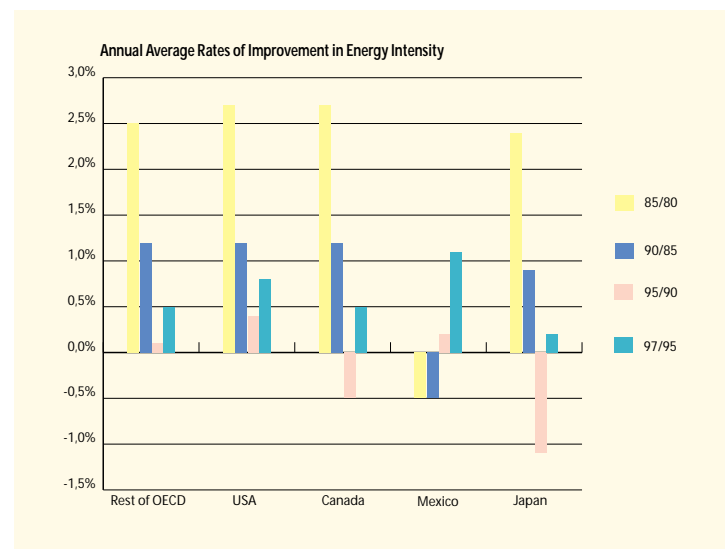
towards light (transportation fuels and petrochemical feedstock) and environmentally cleaner products. On the other hand, Japanese refinery capacity, increased by 1.8% per year on average during the 1990's and accounted for about 6% of world capacity in 1997, but it has not yet adapted fully to the changes in product markets even though its utilisation rate increased from 63% in 1985 to 87% in 1997. This inadequate production means the region remained a net importer of oil products for about 16% of its total consumption.

COMPETITIVENESS

Energy intensity improved again since 1994 at about -1.0% per year on average...

The **energy intensity** of the region as a whole improved significantly (-1.9% per year on average) during the 80's, remained stable between 1990 and 1993 due to the economic slow-down, and improved again after this. But the gain was limited to -0.9% per year on average even if this was accelerating by 1997 to reach -1.8%. Since 1990, however, this is the result of very contrasting regional trends. In fact the 6% decrease observed in the United States since 1990 was largely offset by the stability registered in Canada and the 4% growth observed in Japan. The depressed economic climate in the early 90's led to lower utilisation rates of industrial capacities and limited gross fixed capital formation. This induced increasing specific energy consumption per unit of production and less investment in rational uses of energy. This trend has continued in Japan since then due to the weak economic climate, except in 1996.

Compared to other OECD countries, the United States and Canada have high energy intensity. This is due to many factors. Amongst the most important are low energy prices, high income per capi-





ENERGY INTENSITY BY REGION

toe/1990 MEUR	1980	1985	1990	1995	1996	1997	Annual % Change				
							85/80	90/85	95/90	96/95	97/96
EFTA	185.6	184.4	176.5	173.8	172.4	172.4	-0.1%	-0.9%	-0.3%	-0.8%	0.0%
NAFTA	541.1	475.5	450.2	442.6	438.0	426.0	-2.6%	-1.1%	-0.3%	-1.1%	-2.7%
OECD Pacific	242.5	216.2	207.8	215.7	214.8	214.4	-2.3%	-0.8%	0.8%	-0.4%	-0.2%
Turkey	439.6	430.4	443.6	448.7	456.1	446.8	-0.4%	0.6%	0.2%	1.6%	-2.0%
Total	437.7	384.8	362.1	361.1	357.9	351.5	-2.5%	-1.2%	-0.1%	-0.9%	-1.8%

ta, large distances between centres of population and extreme climatic conditions in both winter and summer. In contrast, Japan has a low energy intensity, some 30% lower than that of the OECD partly due to the higher contribution of energy-efficient industry in final energy consumption, the country's limited energy resources and traditionally high energy prices.

By sector, the energy intensity of industry has been continuously improving since 1980, falling about 42% for the region as a whole. The best performance occurred in the United States where the intensity that had continued to improve at a sustained rate during the 1990's has halved since 1980. The improvement of the Japanese industrial energy intensity, limited to 34% since 1980, reflected the slower trend observed since 1990. In Canada, the gain was limited to 25% due to the stabilisation of energy intensity since 1990. It is only in Turkey, characterised by rapid industrialisation, that energy intensity in industry increased since 1980. The tertiary-domestic sector also improved its energy intensity by about 20% during the 1980's despite the improvement of living standards and the development of new appliances such as air conditioning. Between 1990 and 1996, it has fluctuated around the 1990 level, continuing improvement in the United States being compensated by poorer performance in Canada (+3%) and

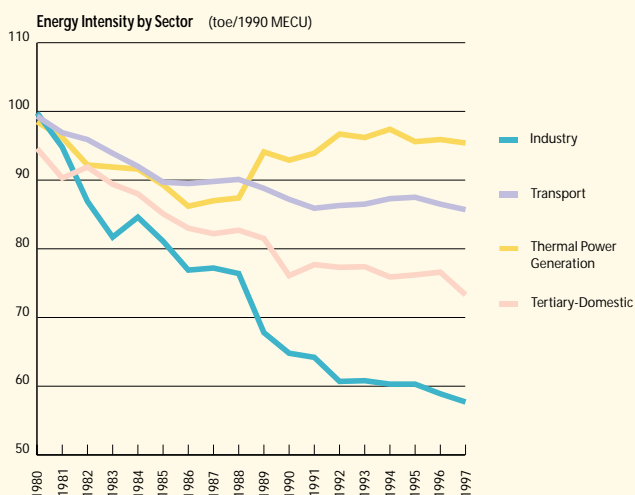
Japan (+8%). Finally, in 1997, characterised by favourable climatic conditions, it improved by 7.1% in the EFTA region, 5.5% in the NAFTA region and 1.5% in the OECD Pacific region but this is not representative of a long-term evolution. Even the transport sector improved about 12% during the 80's but it flattened between 1990 and 1995 and showed further improvement since then, driven by the US performance. In contrast, the energy intensity of power generation, driven by the increasing contribution of electricity to final energy demand, has grown by about 7% since 1985 even though it stabilised since 1995.

Energy consumption per capita peaked in the United States, at twice the Japanese level...

The **gross inland consumption per capita** increased slowly by 0.8% since 1985 to reach an average value of 5.4 toe/inhabitant in 1996. But it reflected large variations between regions and countries. In fact, absolute values varied from 1.1 toe/inhabitant in Turkey, to 4.3 in the OECD Pacific, 4.5 in EFTA, and 6.5 toe/inhabitant in NAFTA, with a peak of 8.1 toe/inhabitant in the United States, the highest per capita consumption in the world. The energy consumption per inhabitant was twice as high in the United States as in Japan, the first and the second industrialised countries in the world respectively. Although per capita consumption remained stable in NAFTA since 1980, it increased in all the others since 1980: by 38% in Turkey, 25% in the OECD Pacific region and 16% in EFTA. This was a consequence of increasing living standards and also industrial development in the particular case of Turkey.

The United States presented, by far, the lowest energy prices in OECD...

If energy efficiency is a major factor influencing competitiveness, energy prices are even more important, to the exclusion of any consideration of labour costs, fiscal systems and regulation. Comparing energy prices within the main competitors inside the OECD, the United States, Japan and the European Union, it is clear that the US prices are the lowest, followed by the European and the Japanese. In 1997, prices of industrial heavy fuel oil ranged



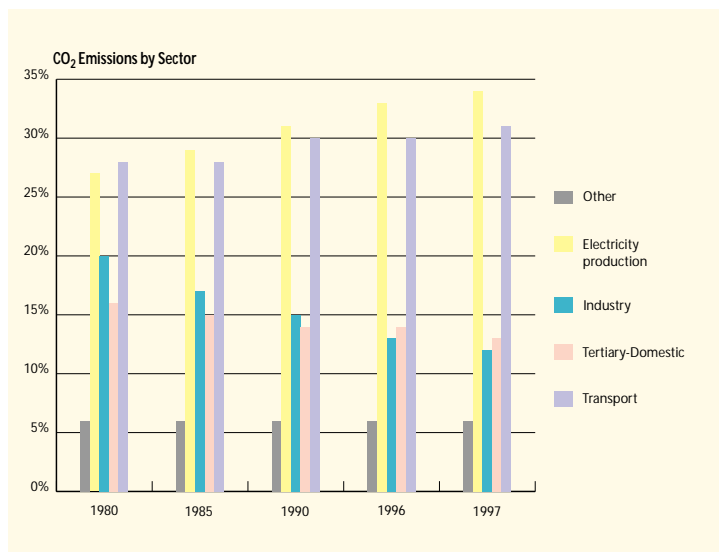


from 79 EUR90/toe in the United States, to 115 EUR90/toe in Japan and 122 EUR90/toe for the European average. For natural gas deliveries to industry the respective prices are 86 EUR90/toe in US, 119 EUR90/toe in the European Union and 280 EUR90/toe in Japan. Finally, for electricity the prices are 28 EUR90/MWh in the United States, 44 EUR90/MWh in European Union and 90 EUR90/MWh in Japan. As a first approximation, it can be considered that US prices reflect low prices observed in liberalised and competitive markets, especially for gas and electricity. Additionally, tax levels are also considerably lower in the USA.

ENVIRONMENT

CO₂ emissions increased by 12% since 1990...

In general terms CO₂ emissions have increased continuously since 1985 driven by the OECD Pacific (+32% since 1985) and the NAFTA region (+19% since 1985). Since 1990 CO₂ emissions for the region as a whole have grown by 12% despite a continuous decline until 1995 of the carbon intensity of the fuel mix due to the increasing contribution of non-fossil fuels and switching from solids fuels and oil products to natural gas. Over the last two years this indicator has been negatively influenced by the reduced contribution of non-fossil fuels, mainly compensated by coal in the United States. It must be stressed that CO₂ emissions by unit of GDP, generally slowing down in other parts of the world, were only declining by 0.6% per year in this region since 1990. The level of CO₂ emissions per capita reflects living standards and the industrialisation levels as well as the efforts to reduce energy intensity. The range was very large inside the region with 2744 kg of CO₂/capita in Turkey, 3637 in Mexico, 8492 in Japan, 16350 in



Canada and 20481 in the United States.

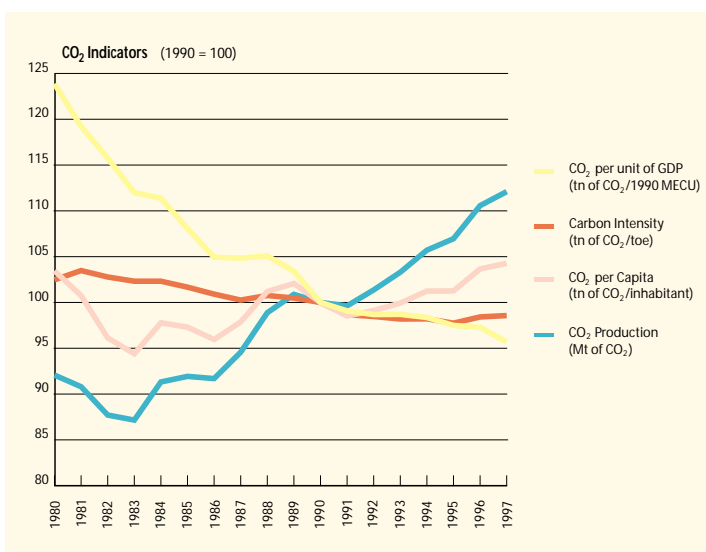
Transport and power generation were responsible for about 65% of CO₂ emissions...

Since 1990, the main contributor to CO₂ emissions has been power generation. Its share in total emissions grew from 27% in 1980 to 34% in 1997. In the last two years, the large increase of solid fuel consumption by US electricity producers induced a jump by about 9% of sectoral CO₂ emissions. The second contributor by far was still the transport sector with a share of about 31% in 1997 against 27% in 1980. The emissions from the tertiary and domestic sectors (13% of total emissions in 1997 against 16% in 1980) remained almost constant after 1980, fluctuating in accordance with climatic conditions. Finally, CO₂ emissions from industry, even though they increased slowly in 1995 and 1996, have been reduced by about 23% since 1980, their share in total CO₂ emissions being reduced from 20% in 1980 to only 12% in 1997.

GLOBAL MARKETS

The region remained a net importer of hydrocarbons but a net exporter of solid fuels...

The region is a net importer of energy. Although its import dependency index dropped to 11% in 1985, it has increased since then to reach 16% in 1990, and subsequently fluctuated between 14% and 16%. The region imported mainly crude oil and oil products, covering almost all of its total fuel imports. Although the NAFTA region diversified its suppliers between Latin America (140 Mtoe), the Middle East (93 Mtoe), Africa (88 Mtoe) and the North Sea (52 Mtoe), the OECD Pacific region relied almost entirely on the





Middle East (228 Mtoe). Japan also imported some LNG. On the other hand, the region remained a net coal exporter, the main volumes being exported outside the region by Australia (95 Mtoe), the United States (47 Mtoe) and Canada (16 Mtoe).

The situation differs between regions and countries. Inside NAFTA, the United States was the only net importer of oil (487 Mtoe in 1997), the two others being net exporters (Mexico with 91 Mtoe and Canada with 37 Mtoe). NAFTA countries are self-sufficient in natural gas even though significant trade took place between Canada and the United States. The import dependency of NAFTA remained limited to about 12%, the same level as in 1980. Conversely, the OECD Pacific region depended for 51% on energy imports in 1997 (70% in 1980) and Japan peaked at 80% as it is totally dependant on imports for all fossil fuels consumed in the country. At the same time, Australia, one of the world's largest solid fuel producers, exported about 48% of its total primary energy production. Finally the EFTA region, led by Norway, became a larger net exporter of energy. In 1997, about 85% of both crude oil and natural gas in the region were exported, mainly to the European Union.



OTHER OECD COUNTRIES: SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Primary Production	2129.9	2312.6	2519.3	2734.0	2810.6	2842.6	1.7%	1.7%	1.6%	2.8%	1.1%
Solids	541.2	605.6	705.0	722.3	741.7	766.6	2.3%	3.1%	0.5%	2.7%	3.4%
Oil	746.8	828.5	799.4	846.0	872.3	885.1	2.1%	-0.7%	1.1%	3.1%	1.5%
Natural gas	572.7	519.7	577.2	649.1	672.1	681.2	-1.9%	2.1%	2.4%	3.5%	1.4%
Nuclear	105.0	169.8	238.4	296.2	298.0	287.7	10.1%	7.0%	4.4%	0.6%	-3.5%
Hydro & Wind	68.6	75.8	77.6	86.4	89.8	88.8	2.0%	0.5%	2.2%	3.9%	-1.1%
Geothermal	7.8	13.0	22.9	23.4	24.8	23.9	10.9%	11.9%	0.5%	5.6%	-3.6%
Other	87.8	100.3	98.7	110.5	111.9	109.3	2.7%	-0.3%	2.3%	1.2%	-2.3%
Net Imports	544.4	304.7	469.6	462.7	479.2	503.4	-11.0%	9.0%	-0.3%	3.6%	5.1%
Solids	-35.2	-53.5	-70.0	-70.1	-68.4	-64.9	8.7%	5.5%	0.0%	-2.5%	-5.1%
Oil	580.9	347.8	518.7	509.8	525.5	549.7	-9.8%	8.3%	-0.3%	3.1%	4.6%
Crude oil	501.0	271.7	430.6	462.7	457.6	485.6	-11.5%	9.6%	1.5%	-1.1%	6.1%
Oil products	79.9	76.1	88.1	47.1	67.9	64.1	-1.0%	3.0%	-11.8%	44.1%	-5.6%
Natural gas	-0.6	11.0	22.5	24.2	21.3	18.3	-	15.4%	1.4%	-11.9%	-14.2%
Electricity	-0.6	-0.6	-1.6	-1.2	0.7	0.3	-1.8%	23.1%	-5.7%	-	-58.1%
Gross Inland Consumption	2606.4	2622.9	2900.7	3174.4	3258.9	3298.9	0.1%	2.0%	1.8%	2.7%	1.2%
Solids	496.2	572.5	612.6	645.3	676.5	699.9	2.9%	1.4%	1.0%	4.8%	3.5%
Oil	1268.7	1154.9	1266.9	1328.6	1364.6	1390.4	-1.9%	1.9%	1.0%	2.7%	1.9%
Natural gas	572.9	537.2	585.2	685.0	692.6	698.7	-1.3%	1.7%	3.2%	1.1%	0.9%
Other (1)	268.6	358.3	436.1	515.5	525.2	510.0	5.9%	4.0%	3.4%	1.9%	-2.9%
Electricity Generation in TWh	3724.8	4184.7	5061.9	5738.2	5865.3	5950.5	2.4%	3.9%	2.5%	2.2%	1.5%
Nuclear	401.2	649.4	913.3	1136.2	1143.2	1103.8	10.1%	7.1%	4.5%	0.6%	-3.4%
Hydro & wind	797.8	880.3	901.5	1003.2	1042.2	1030.8	2.0%	0.5%	2.2%	3.9%	-1.1%
Thermal	2525.9	2655.0	3247.0	3598.7	3679.9	3815.9	1.0%	4.1%	2.1%	2.3%	3.7%
Generation Capacity in GWe	916.8	1083.2	1163.9	1263.9	1279.1	1299.7	3.4%	1.4%	1.7%	1.2%	1.6%
Nuclear	80.0	120.3	148.5	160.4	163.1	165.0	8.5%	4.3%	1.6%	1.7%	1.2%
Hydro & wind	204.3	232.7	255.4	280.8	281.0	282.1	2.6%	1.9%	1.9%	0.1%	0.4%
Thermal	632.6	730.2	760.0	822.6	835.0	852.6	2.9%	0.8%	1.6%	1.5%	2.1%
Average Load Factor in %	46.4	44.1	49.6	51.8	52.3	52.3	-1.0%	2.4%	0.9%	1.0%	-0.2%
Fuel Inputs for Thermal Power Generation	593.6	620.9	766.1	862.3	896.6	918.0	0.9%	4.3%	2.4%	4.0%	2.4%
Solids	339.8	422.6	468.9	533.9	565.7	583.3	4.5%	2.1%	2.6%	5.9%	3.1%
Oil	136.6	78.6	97.1	78.9	81.3	81.2	-10.5%	4.3%	-4.1%	3.0%	-0.1%
Gas	107.7	103.9	133.8	180.2	176.7	181.6	-0.7%	5.2%	6.1%	-2.0%	2.8%
Geothermal	7.3	12.4	22.0	22.3	23.6	22.6	11.3%	12.2%	0.3%	5.7%	-3.9%
Other	2.2	3.4	44.3	46.9	49.4	49.3	9.3%	67.2%	1.1%	5.4%	-0.3%
Average Thermal Efficiency in %	36.6	36.8	36.4	35.9	35.3	35.7	0.1%	-0.2%	-0.3%	-1.7%	1.3%
Non-Energy Uses	147.8	141.1	177.3	191.8	201.7	209.7	-0.9%	4.7%	1.6%	5.2%	4.0%
Total Final Energy Demand	1749.2	1743.8	1828.8	1970.4	2023.2	2035.2	-0.1%	1.0%	1.5%	2.7%	0.6%
Solids	93.7	98.7	97.7	68.0	66.6	68.0	1.0%	-0.2%	-7.0%	-2.1%	2.1%
Oil	900.6	869.8	925.9	986.5	1010.2	1020.0	-0.7%	1.3%	1.3%	2.4%	1.0%
Gas	398.1	367.7	380.5	422.4	440.6	436.0	-1.6%	0.7%	2.1%	4.3%	-1.0%
Electricity	269.2	307.5	366.0	419.2	432.1	439.7	2.7%	3.5%	2.7%	3.1%	1.8%
Heat	1.8	3.2	3.6	9.8	10.2	10.6	12.3%	2.6%	22.0%	4.0%	3.4%
Other	85.7	96.9	55.0	64.6	63.4	61.0	2.5%	-10.7%	3.3%	-1.8%	-3.9%
CO₂ Emissions in Mt of CO₂	6539.4	6529.3	7102.7	7596.9	7853.3	7962.0	0.0%	1.7%	1.4%	3.4%	1.4%
Indicators											
Population (Million)	508.88	540.17	571.75	603.92	609.87	614.63	1.2%	1.1%	1.1%	1.0%	0.8%
GDP (index 1985=100)	87.4	100.0	117.6	129.0	133.6	137.7	2.7%	3.3%	1.9%	3.6%	3.1%
Gross Inl Cons./GDP (toe/1990 MEUR)	437.7	384.8	362.1	361.1	357.9	351.5	-2.5%	-1.2%	-0.1%	-0.9%	-1.8%
Gross Inl Cons./Capita (toe/inhabitant)	5.12	4.86	5.07	5.26	5.34	5.37	-1.1%	0.9%	0.7%	1.7%	0.4%
Electricity Generated/Capita (kWh/inhabitant)	7320	7747	8853	9501	9617	9681	1.1%	2.7%	1.4%	1.2%	0.7%
CO ₂ Emissions/Capita (t of CO ₂ /inhabitant)	12.9	12.1	12.4	12.6	12.9	13.0	-1.2%	0.5%	0.3%	2.4%	0.6%
Import Dependency (%)	20.5	11.5	16.0	14.4	14.6	15.1	-11.0%	6.8%	-2.1%	1.0%	3.9%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.



OTHER OECD COUNTRIES : MAIN INDICATORS											
	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Gross Inland Consumption (Mtoe)	2606.4	2622.9	2900.7	3174.4	3258.9	3298.9	0.1%	2.0%	1.8%	2.7%	1.2%
Public Thermal Power Generation	568.6	594.5	659.8	696.9	720.3	743.0	0.9%	2.1%	1.1%	3.4%	3.1%
Autoprod. Thermal Power Generation	17.7	14.0	84.6	143.4	153.1	152.7	-4.6%	43.4%	11.1%	6.7%	-0.3%
Energy Branch	154.8	159.2	187.4	195.8	204.9	205.7	0.6%	3.3%	0.9%	4.7%	0.4%
Final Energy Consumption	1749.2	1743.8	1828.2	1968.8	2021.5	2033.4	-0.1%	1.0%	1.5%	2.7%	0.6%
Industry	594.3	552.4	519.5	529.7	536.5	541.4	-1.5%	-1.2%	0.4%	1.3%	0.9%
Transport	591.4	611.1	698.6	768.9	787.6	804.1	0.7%	2.7%	1.9%	2.4%	2.1%
Tertiary-Domestic	563.4	580.3	610.1	670.1	697.4	688.0	0.6%	1.0%	1.9%	4.1%	-1.4%
Energy Intensity (toe/1990 MEUR)	437.7	384.8	362.1	361.1	357.9	351.5	-2.5%	-1.2%	-0.1%	-0.9%	-1.8%
Public Thermal Power Generation	95.5	87.2	82.3	79.3	79.1	79.2	-1.8%	-1.1%	-0.8%	-0.2%	0.1%
Autoprod. Thermal Power Generation	3.0	2.0	10.6	16.3	16.8	16.3	-7.2%	38.8%	9.1%	3.0%	-3.2%
Industry	99.8	81.1	64.8	60.3	58.9	57.7	-4.1%	-4.4%	-1.5%	-2.2%	-2.1%
Transport	99.3	89.7	87.2	87.5	86.5	85.7	-2.0%	-0.6%	0.1%	-1.1%	-1.0%
Tertiary-Domestic	94.6	85.1	76.1	76.2	76.6	73.3	-2.1%	-2.2%	0.0%	0.5%	-4.3%
Energy per Capita (Kgoe/inhabitant)	5122	4856	5073	5256	5344	5367	-1.1%	0.9%	0.7%	1.7%	0.4%
Industry	1168	1023	909	877	880	881	-2.6%	-2.3%	-0.7%	0.3%	0.1%
Transport	1162	1131	1222	1273	1291	1308	-0.5%	1.6%	0.8%	1.4%	1.3%
Tertiary-Domestic	1107	1074	1067	1110	1144	1119	-0.6%	-0.1%	0.8%	3.1%	-2.1%
Electricity Share (%)											
Final Energy Consumption	15.4%	17.6%	20.0%	21.3%	21.4%	21.6%	2.8%	2.6%	1.2%	0.4%	1.2%
Industry	19.5%	22.0%	26.9%	30.3%	30.9%	31.4%	2.5%	4.1%	2.4%	1.7%	1.7%
Transport	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%	1.7%	1.1%	-0.2%	-1.8%	-0.2%
Tertiary-Domestic	26.9%	31.6%	36.6%	38.1%	37.8%	38.8%	3.3%	3.0%	0.8%	-0.8%	2.6%
Total Renewable Consumption (Mtoe)	164.2	189.1	199.2	220.5	226.5	222.0	2.9%	1.1%	2.0%	2.7%	-2.0%
Hydro	68.6	75.7	77.3	85.9	89.2	88.3	2.0%	0.4%	2.1%	3.9%	-1.1%
Biomass	87.8	100.3	98.7	110.6	111.9	109.3	2.7%	-0.3%	2.3%	1.2%	-2.4%
Other	7.8	13.1	23.3	23.9	25.3	24.4	11.0%	12.2%	0.6%	5.7%	-3.4%
Renewable intensity (toe/1990MEUR)	27.6	27.7	24.9	25.1	24.9	23.6	0.1%	-2.2%	0.2%	-0.8%	-4.9%
Renewable per capita (Kgoe/inhabitant)	322.7	350.0	348.5	365.1	371.4	361.2	1.6%	-0.1%	0.9%	1.7%	-2.7%
CO₂ Emissions (Mt of CO₂)	6539.4	6529.3	7102.7	7596.9	7853.3	7962.0	0.0%	1.7%	1.4%	3.4%	1.4%
Public Thermal Power Generation	1708.2	1870.1	2091.6	2187.6	2313.2	2379.1	1.8%	2.3%	0.9%	5.7%	2.8%
Autoprod. Thermal Power Generation	51.1	37.7	117.5	295.6	316.0	316.6	-5.9%	25.5%	20.3%	6.9%	0.2%
Energy Branch	378.2	381.6	440.2	443.7	463.7	467.1	0.2%	2.9%	0.2%	4.5%	0.7%
Industry	1295.0	1134.5	1077.5	987.9	991.4	990.7	-2.6%	-1.0%	-1.7%	0.4%	-0.1%
Transport	1799.4	1860.4	2124.9	2332.0	2391.9	2440.3	0.7%	2.7%	1.9%	2.6%	2.0%
Tertiary-Domestic	1038.6	986.6	979.3	1036.0	1085.8	1062.1	-1.0%	-0.1%	1.1%	4.8%	-2.2%
Carbon Intensity (tn of CO₂/toe)	2.5	2.5	2.4	2.4	2.4	2.4	-0.2%	-0.3%	-0.5%	0.7%	0.2%
Public Power Generation	2.3	2.2	2.1	2.0	2.1	2.1	-0.8%	-0.8%	-1.0%	2.9%	1.8%
Public Thermal Power Generation	3.0	3.1	3.2	3.1	3.2	3.2	0.9%	0.2%	-0.2%	2.3%	-0.3%
Autoprod. Power Generation	2.3	2.0	1.2	1.9	1.9	1.9	-2.6%	-9.4%	8.8%	0.7%	0.9%
Autoprod. Thermal Power Generation	2.9	2.7	1.4	2.1	2.1	2.1	-1.3%	-12.5%	8.2%	0.2%	0.4%
Energy Branch	0.0	2.5	2.1	3.0	3.0	3.0	-	-3.9%	7.8%	0.5%	0.2%
Industry	2.4	2.4	2.3	2.3	2.3	2.3	-0.4%	-0.4%	-0.7%	-0.1%	0.3%
Transport	2.2	2.1	2.1	1.9	1.8	1.8	-1.2%	0.2%	-2.1%	-0.9%	-1.0%
Tertiary-Domestic	3.0	3.0	3.0	3.0	3.0	3.0	0.0%	0.0%	-0.1%	0.1%	-0.1%
CO₂ per Capita (kg of CO₂/inhabitant)	12851	12087	12423	12579	12877	12954	-1.2%	0.5%	0.3%	2.4%	0.6%
Industry	2545	2100	1885	1636	1626	1612	-3.8%	-2.1%	-2.8%	-0.6%	-0.8%
Transport	3536	3444	3716	3861	3922	3970	-0.5%	1.5%	0.8%	1.6%	1.2%
Tertiary-Domestic	2041	1826	1713	1716	1780	1728	-2.2%	-1.3%	0.0%	3.8%	-2.9%
CO₂ per unit of GDP (tn of CO₂/1990 MEUR)	1098	958	887	864	862	848	-2.7%	-1.5%	-0.5%	-0.2%	-1.6%
Public Thermal Power Generation	287	274	261	249	254	253	-0.9%	-1.0%	-1.0%	2.1%	-0.2%
Autoprod. Thermal Power Generation	9	6	15	34	35	34	-8.4%	21.5%	18.1%	3.2%	-2.8%
Energy Branch	0	0	0	1	1	1	-	2.4%	67.4%	18.3%	9.8%
Industry	64	56	55	50	51	50	-2.5%	-0.4%	-1.7%	0.9%	-2.3%
Transport	217	166	134	112	109	106	-5.2%	-4.2%	-3.5%	-3.1%	-3.1%
Tertiary-Domestic	302	273	265	265	263	260	-2.0%	-0.6%	0.0%	-1.0%	-1.0%



NAFTA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Primary Production	1910.0	2005.5	2117.5	2215.0	2257.7	2269.6	1.0%	1.1%	0.9%	1.9%	0.5%
Solids	470.2	502.5	580.2	576.7	593.6	609.9	1.3%	2.9%	-0.1%	2.9%	2.8%
Oil	697.2	757.1	680.1	669.4	676.9	688.9	1.7%	-2.1%	-0.3%	1.1%	1.8%
Natural gas	539.7	480.0	530.1	590.0	602.6	607.8	-2.3%	2.0%	2.2%	2.1%	0.9%
Nuclear	79.8	122.3	179.5	213.8	212.7	197.9	8.9%	8.0%	3.6%	-0.5%	-6.9%
Hydro & Wind	47.0	52.8	51.3	58.6	63.9	61.2	2.3%	-0.6%	2.7%	9.0%	-4.1%
Geothermal	5.4	9.9	18.2	17.7	18.5	17.5	13.0%	12.9%	-0.5%	4.2%	-5.1%
Other	70.7	80.9	78.2	88.8	89.6	86.3	2.8%	-0.7%	2.6%	0.9%	-3.6%
Net Imports	246.0	68.9	215.4	249.4	274.3	307.4	-22.5%	25.6%	3.0%	10.0%	12.1%
Solids	-56.0	-64.9	-76.3	-65.3	-65.9	-60.9	3.0%	3.3%	-3.1%	1.0%	-7.7%
Oil	301.1	134.8	290.7	315.3	339.7	367.4	-14.8%	16.6%	1.6%	7.8%	8.1%
Crude oil	265.3	108.3	269.8	317.6	329.4	354.5	-16.4%	20.0%	3.3%	3.7%	7.6%
Oil products	35.9	26.5	20.9	-2.3	10.4	12.9	-5.9%	-4.6%	-	-	24.6%
Natural gas	0.9	-1.0	1.0	-0.7	0.4	0.5	-	-	-	-	22.4%
Electricity	0.0	0.0	0.0	0.1	0.0	0.4	41.3%	-19.7%	35.7%	-43.5%	833.3%
Gross Inland Consumption	2103.6	2086.5	2259.6	2454.4	2511.9	2541.7	-0.2%	1.6%	1.7%	2.3%	1.2%
Solids	399.9	454.5	484.3	506.1	529.8	547.3	2.6%	1.3%	0.9%	4.7%	3.3%
Oil	959.3	880.5	931.3	968.3	995.1	1023.5	-1.7%	1.1%	0.8%	2.8%	2.9%
Natural gas	541.5	485.5	516.8	600.9	602.4	607.5	-2.2%	1.3%	3.1%	0.2%	0.9%
Other (1)	202.9	266.0	327.2	379.0	384.6	363.3	5.6%	4.2%	3.0%	1.5%	-5.5%
Electricity Generation in TWh	2867.6	3173.8	3786.2	4273.3	4390.8	4420.7	2.1%	3.6%	2.4%	2.8%	0.7%
Nuclear	304.2	467.2	687.4	820.1	815.9	759.3	9.0%	8.0%	3.6%	-0.5%	-6.9%
Hydro & wind	546.8	613.9	596.4	681.2	742.8	712.1	2.3%	-0.6%	2.7%	9.0%	-4.1%
Thermal	2016.5	2092.7	2502.3	2772.0	2832.2	2949.2	0.7%	3.6%	2.1%	2.2%	4.1%
Generation Capacity in GWe	701.6	823.3	866.0	923.5	932.4	944.0	3.3%	1.0%	1.3%	1.0%	1.3%
Nuclear	62.4	92.7	113.9	116.8	118.1	119.3	8.3%	4.2%	0.5%	1.1%	1.0%
Hydro & wind	130.5	147.3	159.6	173.9	174.6	175.4	2.5%	1.6%	1.7%	0.4%	0.5%
Thermal	508.7	583.3	592.5	632.8	639.7	649.4	2.8%	0.3%	1.3%	1.1%	1.5%
Average Load Factor in %	46.7	44.0	49.9	52.8	53.8	53.5	-1.2%	2.6%	1.1%	1.8%	-0.6%
Fuel Inputs for Thermal Power Generation	476.5	498.3	608.7	689.5	714.2	737.1	0.9%	4.1%	2.5%	3.6%	3.2%
Solids	307.1	374.1	408.9	460.4	485.8	499.7	4.0%	1.8%	2.4%	5.5%	2.9%
Oil	73.5	39.3	46.6	33.9	36.1	41.3	-11.8%	3.5%	-6.2%	6.5%	14.5%
Gas	90.2	74.3	95.0	136.1	130.1	135.1	-3.8%	5.0%	7.4%	-4.4%	3.9%
Geothermal	5.4	9.9	18.2	17.7	18.5	17.5	13.0%	12.9%	-0.5%	4.2%	-5.1%
Other	0.3	0.7	40.0	41.4	43.8	43.4	15.5%	124.7%	0.7%	5.9%	-0.9%
Average Thermal Efficiency in %	36.4	36.1	35.3	34.6	34.1	34.4	-0.2%	-0.4%	-0.4%	-1.4%	0.9%
Non-Energy Uses	112.6	105.3	130.5	136.8	146.0	151.9	-1.3%	4.4%	0.9%	6.8%	4.0%
Total Final Energy Demand	1432.2	1405.6	1433.5	1530.3	1569.7	1577.5	-0.4%	0.4%	1.3%	2.6%	0.5%
Solids	62.0	63.2	61.1	33.0	30.9	31.1	0.4%	-0.7%	-11.6%	-6.5%	0.6%
Oil	711.5	680.7	706.0	742.7	759.4	770.8	-0.9%	0.7%	1.0%	2.2%	1.5%
Gas	382.2	347.2	354.6	388.4	404.4	398.7	-1.9%	0.4%	1.8%	4.1%	-1.4%
Electricity	205.2	232.0	270.9	310.2	320.4	324.9	2.5%	3.2%	2.7%	3.3%	1.4%
Heat	1.0	2.2	2.2	7.8	8.1	8.4	16.3%	-0.2%	29.1%	3.6%	3.1%
Other	70.3	80.2	38.7	48.2	46.5	43.6	2.7%	-13.6%	4.5%	-3.5%	-6.2%
CO₂ Emissions in Mt of CO₂	5364.0	5303.5	5654.1	6001.2	6193.1	6298.8	-0.2%	1.3%	1.2%	3.2%	1.7%
Indicators											
Population (Million)	319.10	339.13	360.29	383.27	387.53	390.64	1.2%	1.2%	1.2%	1.1%	0.8%
GDP (index 1985=100)	88.6	100.0	114.4	126.4	130.7	136.0	2.5%	2.7%	2.0%	3.4%	4.0%
Gross Inl Cons./GDP (toe/1990 MEUR)	541.1	475.5	450.2	442.6	438.0	426.0	-2.6%	-1.1%	-0.3%	-1.1%	-2.7%
Gross Inl Cons./Capita (toe/inhabitant)	6.59	6.15	6.27	6.40	6.48	6.51	-1.4%	0.4%	0.4%	1.2%	0.4%
Electricity Generated/Capita (kWh/inhabitant)	8986	9359	10509	11149	11330	11317	0.8%	2.3%	1.2%	1.6%	-0.1%
CO ₂ Emissions/Capita (t of CO ₂ /inhabitant)	16.8	15.6	15.7	15.7	16.0	16.1	-1.4%	0.1%	0.0%	2.1%	0.9%
Import Dependency (%)	11.5	3.3	9.4	10.0	10.8	12.0	-22.3%	23.5%	1.3%	7.5%	10.9%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.



NAFTA : MAIN INDICATORS											
	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Gross Inland Consumption (Mtoe)	2103.6	2086.5	2259.6	2454.4	2511.9	2541.7	-0.2%	1.6%	1.7%	2.3%	1.2%
Public Thermal Power Generation	470.1	487.1	525.8	552.7	568.2	594.3	0.7%	1.5%	1.0%	2.8%	4.6%
Autoprod. Thermal Power Generation	1.0	1.3	65.0	119.4	127.9	125.7	5.7%	118.1%	12.9%	7.2%	-1.7%
Energy Branch	130.6	132.1	155.9	159.1	167.1	166.7	0.2%	3.4%	0.4%	5.0%	-0.3%
Final Energy Consumption	1432.2	1405.5	1433.0	1528.9	1568.1	1575.8	-0.4%	0.4%	1.3%	2.6%	0.5%
Industry	465.3	423.1	378.6	383.0	385.7	388.3	-1.9%	-2.2%	0.2%	0.7%	0.7%
Transport	502.2	515.5	577.8	629.3	642.7	656.9	0.5%	2.3%	1.7%	2.1%	2.2%
Tertiary-Domestic	464.7	467.0	476.7	516.6	539.7	530.6	0.1%	0.4%	1.6%	4.5%	-1.7%
Energy Intensity (toe/1990 MEUR)	541.1	475.5	450.2	442.6	438.0	426.0	-2.6%	-1.1%	-0.3%	-1.1%	-2.7%
Public Thermal Power Generation	120.9	111.0	104.7	99.7	99.1	99.6	-1.7%	-1.2%	-1.0%	-0.6%	0.5%
Autoprod. Thermal Power Generation	0.3	0.3	12.9	21.5	22.3	21.1	3.2%	112.3%	10.7%	3.6%	-5.5%
Industry	119.7	96.4	75.4	69.1	67.3	65.1	-4.2%	-4.8%	-1.7%	-2.6%	-3.2%
Transport	129.2	117.5	115.1	113.5	112.1	110.1	-1.9%	-0.4%	-0.3%	-1.2%	-1.8%
Tertiary-Domestic	119.5	106.4	95.0	93.2	94.1	88.9	-2.3%	-2.2%	-0.4%	1.0%	-5.5%
Energy per Capita (Kgoe/inhabitant)	6592	6153	6272	6404	6482	6506	-1.4%	0.4%	0.4%	1.2%	0.4%
Industry	1458	1248	1051	999	995	994	-3.1%	-3.4%	-1.0%	-0.4%	-0.1%
Transport	1574	1520	1604	1642	1659	1682	-0.7%	1.1%	0.5%	1.0%	1.4%
Tertiary-Domestic	1456	1377	1323	1348	1393	1358	-1.1%	-0.8%	0.4%	3.3%	-2.5%
Electricity Share (%)											
Final Energy Consumption	14.3%	16.5%	18.9%	20.3%	20.4%	20.6%	2.9%	2.8%	1.4%	0.7%	0.9%
Industry	16.9%	19.7%	24.7%	29.0%	29.8%	30.4%	3.2%	4.6%	3.3%	2.8%	1.8%
Transport	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	4.3%	-0.1%	-0.6%	-1.4%	2.8%
Tertiary-Domestic	27.2%	31.7%	37.1%	38.4%	37.9%	38.8%	3.1%	3.2%	0.7%	-1.2%	2.5%
Total Renewable Consumption (Mtoe)	123.1	143.6	147.7	165.2	171.9	165.1	3.1%	0.6%	2.3%	4.1%	-4.0%
Hydro	47.0	52.8	51.0	58.2	63.5	60.9	2.3%	-0.7%	2.7%	9.1%	-4.1%
Biomass	70.7	80.9	78.2	88.9	89.6	86.3	2.8%	-0.7%	2.6%	0.8%	-3.7%
Other	5.4	9.9	18.4	18.1	18.8	17.9	13.0%	13.2%	-0.4%	4.3%	-5.0%
Renewable intensity (toe/1990MEUR)	31.7	32.7	29.4	29.8	30.0	27.7	0.7%	-2.1%	0.3%	0.6%	-7.7%
Renewable per capita (Kgoe/inhabitant)	385.7	423.6	409.8	431.0	443.6	422.5	1.9%	-0.7%	1.0%	2.9%	-4.8%
CO₂ Emissions (Mt of CO₂)	5364.0	5303.5	5654.1	6001.2	6193.1	6298.8	-0.2%	1.3%	1.2%	3.2%	1.7%
Public Thermal Power Generation	1433.2	1592.0	1751.7	1822.0	1925.2	1995.2	2.1%	1.9%	0.8%	5.7%	3.6%
Autoprod. Thermal Power Generation	2.1	2.6	63.8	229.8	246.5	242.4	4.7%	89.1%	29.2%	7.3%	-1.7%
Energy Branch	315.8	313.9	365.1	358.6	376.0	376.4	-0.1%	3.1%	-0.4%	4.9%	0.1%
Industry	1006.6	849.9	782.3	688.7	684.0	681.3	-3.3%	-1.6%	-2.5%	-0.7%	-0.4%
Transport	1530.7	1572.4	1760.7	1910.8	1954.8	1996.1	0.5%	2.3%	1.7%	2.3%	2.1%
Tertiary-Domestic	850.2	787.8	755.0	785.3	829.1	812.1	-1.5%	-0.8%	0.8%	5.6%	-2.1%
Carbon Intensity (tn of CO₂/toe)	2.5	2.5	2.5	2.4	2.5	2.5	-0.1%	-0.3%	-0.5%	0.8%	0.5%
Public Power Generation	2.4	2.4	2.3	2.2	2.3	2.3	-0.1%	-0.8%	-0.8%	3.2%	2.6%
Public Thermal Power Generation	3.0	3.3	3.3	3.3	3.4	3.4	1.4%	0.4%	-0.2%	2.8%	-0.9%
Autoprod. Power Generation	0.6	0.7	0.9	1.7	1.7	1.8	3.3%	4.9%	15.2%	0.4%	0.5%
Autoprod. Thermal Power Generation	2.1	2.0	1.0	1.9	1.9	1.9	-1.0%	-13.3%	14.4%	0.1%	0.1%
Energy Branch	0.0	0.0	0.0	3.1	3.1	3.1	-	-	-	0.0%	0.0%
Industry	2.4	2.4	2.3	2.3	2.2	2.3	-0.4%	-0.3%	-0.8%	-0.2%	0.4%
Transport	2.2	2.0	2.1	1.8	1.8	1.8	-1.5%	0.6%	-2.7%	-1.4%	-1.1%
Tertiary-Domestic	3.0	3.1	3.0	3.0	3.0	3.0	0.0%	0.0%	-0.1%	0.2%	-0.1%
CO₂ per Capita (kg of CO₂/inhabitant)	16810	15639	15693	15658	15981	16124	-1.4%	0.1%	0.0%	2.1%	0.9%
Industry	3155	2506	2171	1797	1765	1744	-4.5%	-2.8%	-3.7%	-1.8%	-1.2%
Transport	4797	4637	4887	4986	5044	5110	-0.7%	1.1%	0.4%	1.2%	1.3%
Tertiary-Domestic	2664	2323	2096	2049	2139	2079	-2.7%	-2.0%	-0.4%	4.4%	-2.8%
CO₂ per unit of GDP (tn of CO₂/1990 MEUR)	1380	1209	1126	1082	1080	1056	-2.6%	-1.4%	-0.8%	-0.2%	-2.2%
Public Thermal Power Generation	369	363	349	329	336	334	-0.3%	-0.8%	-1.2%	2.2%	-0.4%
Autoprod. Thermal Power Generation	1	1	13	41	43	41	2.2%	84.1%	26.7%	3.7%	-5.5%
Energy Branch	0	0	0	1	2	2	-	-	-	19.3%	10.6%
Industry	81	72	73	65	66	63	-2.5%	0.3%	-2.3%	1.4%	-3.8%
Transport	259	194	156	124	119	114	-5.6%	-4.3%	-4.4%	-4.0%	-4.3%
Tertiary-Domestic	394	358	351	345	341	335	-1.9%	-0.4%	-0.4%	-1.1%	-1.8%



UNITED STATES : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Primary Production	1553.3	1570.2	1648.8	1663.6	1688.5	1683.8	0.2%	1.0%	0.2%	1.5%	-0.3%
Solids	447.9	465.9	539.1	531.5	547.1	561.9	0.8%	3.0%	-0.3%	2.9%	2.7%
Oil	498.3	514.3	431.2	399.6	398.7	396.6	0.6%	-3.5%	-1.5%	-0.2%	-0.5%
Natural gas	454.6	385.9	419.2	435.7	440.2	442.1	-3.2%	1.7%	0.8%	1.0%	0.4%
Nuclear	69.4	106.0	159.4	186.0	186.4	173.7	8.8%	8.5%	3.1%	0.2%	-6.8%
Hydro & Wind	24.0	24.4	23.7	27.4	30.6	28.8	0.4%	-0.6%	2.9%	11.7%	-5.8%
Geothermal	4.6	8.5	13.8	12.8	13.5	12.8	13.1%	10.1%	-1.4%	5.4%	-5.3%
Other	54.5	65.1	62.3	70.5	72.0	67.9	3.6%	-0.9%	2.5%	2.2%	-5.8%
Net Imports	307.3	201.8	344.7	438.6	470.4	509.5	-8.1%	11.3%	4.9%	7.3%	8.3%
Solids	-57.0	-57.3	-64.8	-49.4	-51.3	-46.6	0.1%	2.5%	-5.3%	3.7%	-9.2%
Oil	340.3	235.3	376.2	422.5	453.8	486.9	-7.1%	9.8%	2.4%	7.4%	7.3%
Crude oil	299.0	202.9	350.2	419.3	440.0	475.4	-7.5%	11.5%	3.7%	4.9%	8.0%
Oil products	41.3	32.4	26.0	3.2	13.8	11.5	-4.7%	-4.3%	-34.2%	332.6%	-16.8%
Natural gas	21.7	20.3	33.2	62.2	64.6	65.9	-1.3%	10.3%	13.4%	3.7%	2.0%
Electricity	2.3	3.5	0.2	3.2	3.3	3.3	8.9%	-45.4%	80.0%	1.1%	1.3%
Gross Inland Consumption	1811.7	1781.7	1925.7	2089.7	2140.1	2162.2	-0.3%	1.6%	1.6%	2.4%	1.0%
Solids	376.2	425.7	456.7	475.3	497.5	513.3	2.5%	1.4%	0.8%	4.7%	3.2%
Oil	803.9	736.8	770.3	805.8	832.5	854.5	-1.7%	0.9%	0.9%	3.3%	2.6%
Natural gas	476.8	411.7	439.4	508.5	504.3	508.0	-2.9%	1.3%	3.0%	-0.8%	0.7%
Other (1)	154.7	207.5	259.3	300.1	305.8	286.4	6.0%	4.6%	3.0%	1.9%	-6.3%
Electricity Generation in TWh	2427.3	2621.9	3181.5	3558.4	3651.2	3670.6	1.6%	3.9%	2.3%	2.6%	0.5%
Nuclear	266.2	406.7	611.6	713.8	715.2	666.4	8.8%	8.5%	3.1%	0.2%	-6.8%
Hydro & wind	278.8	284.0	273.2	314.1	350.9	330.2	0.4%	-0.8%	2.8%	11.7%	-5.9%
Thermal	1882.4	1931.3	2296.8	2530.5	2585.1	2674.1	0.5%	3.5%	2.0%	2.2%	3.4%
Generation Capacity in GWe	603.1	701.9	733.3	771.4	778.3	788.3	3.1%	0.9%	1.0%	0.9%	1.3%
Nuclear	56.5	81.6	99.6	99.1	100.4	101.6	7.6%	4.1%	-0.1%	1.3%	1.1%
Hydro & wind	76.7	85.0	92.4	100.2	100.3	99.9	2.1%	1.7%	1.6%	0.1%	-0.4%
Thermal	470.0	535.3	541.3	572.0	577.6	586.9	2.6%	0.2%	1.1%	1.0%	1.6%
Average Load Factor in %	45.9	42.6	49.5	52.7	53.6	53.2	-1.5%	3.0%	1.2%	1.7%	-0.8%
Fuel Inputs for Thermal Power Generation	442.9	458.8	558.1	632.1	655.9	672.7	0.7%	4.0%	2.5%	3.8%	2.6%
Solids	292.0	353.7	387.6	435.8	460.2	472.7	3.9%	1.9%	2.4%	5.6%	2.7%
Oil	60.6	25.1	27.3	15.2	16.9	18.9	-16.2%	1.7%	-11.1%	11.8%	11.5%
Gas	85.6	71.2	89.7	127.2	121.8	125.2	-3.6%	4.7%	7.2%	-4.3%	2.8%
Geothermal	4.6	8.5	13.8	12.8	13.5	12.8	13.1%	10.1%	-1.4%	5.4%	-5.3%
Other	0.1	0.4	39.7	41.1	43.5	43.1	26.6%	157.0%	0.7%	5.9%	-1.0%
Average Thermal Efficiency in %	36.6	36.2	35.4	34.4	33.9	34.2	-0.2%	-0.5%	-0.6%	-1.6%	0.9%
Non-Energy Uses	96.2	82.4	107.2	112.3	120.4	126.4	-3.0%	5.4%	0.9%	7.2%	5.1%
Total Final Energy Demand	1223.7	1196.3	1207.2	1281.7	1317.1	1320.5	-0.5%	0.2%	1.2%	2.8%	0.3%
Solids	56.2	57.4	56.6	28.0	25.8	25.8	0.4%	-0.3%	-13.1%	-7.7%	-0.2%
Oil	601.5	582.4	596.3	628.0	644.6	652.9	-0.6%	0.5%	1.0%	2.6%	1.3%
Gas	337.4	296.6	303.0	326.4	340.8	336.5	-2.5%	0.4%	1.5%	4.4%	-1.3%
Electricity	174.2	193.8	226.5	261.6	269.0	272.2	2.2%	3.2%	2.9%	2.8%	1.2%
Heat	0.0	1.4	1.7	7.5	7.6	7.6	-	3.9%	34.8%	1.6%	0.3%
Other	54.4	64.7	23.1	30.2	29.3	25.5	3.6%	-18.6%	5.5%	-3.1%	-12.9%
CO₂ Emissions in Mt of CO₂	4720.6	4650.8	4930.3	5214.2	5388.0	5464.2	-0.3%	1.2%	1.1%	3.3%	1.4%
Indicators											
Population (Million)	227.73	238.47	249.91	263.17	265.56	266.79	0.9%	0.9%	1.0%	0.9%	0.5%
GDP (index 1985=100)	88.6	100.0	114.6	127.1	131.6	136.8	2.4%	2.8%	2.1%	3.6%	3.9%
Gross Inl Cons./GDP (toe/1990 MEUR)	537.0	468.0	441.4	431.9	427.1	415.2	-2.7%	-1.2%	-0.4%	-1.1%	-2.8%
Gross Inl Cons./Capita (toe/inhabitant)	7.96	7.47	7.71	7.94	8.06	8.10	-1.2%	0.6%	0.6%	1.5%	0.6%
Electricity Generated/Capita (kWh/inhabitant)	10659	10995	12731	13521	13749	13758	0.6%	3.0%	1.2%	1.7%	0.1%
CO ₂ Emissions/Capita (t of CO ₂ /inhabitant)	20.7	19.5	19.7	19.8	20.3	20.5	-1.2%	0.2%	0.1%	2.4%	0.9%
Import Dependency (%)	16.7	11.2	17.6	20.7	21.7	23.3	-7.7%	9.5%	3.3%	4.8%	7.4%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.



OECD PACIFIC : SUMMARY ENERGY BALANCE											
Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Primary Production	139.1	201.9	244.9	298.2	305.7	320.3	7.7%	3.9%	4.0%	2.5%	4.8%
Solids	64.6	92.1	112.3	133.4	135.7	143.3	7.3%	4.0%	3.5%	1.7%	5.6%
Oil	22.2	29.7	31.2	30.6	30.7	31.8	6.0%	1.0%	-0.3%	0.3%	3.5%
Natural gas	10.2	16.2	22.8	30.8	32.0	32.3	9.7%	7.1%	6.2%	4.0%	0.8%
Nuclear	21.5	41.6	52.7	75.9	78.8	83.1	14.1%	4.9%	7.6%	3.8%	5.6%
Hydro & Wind	10.4	10.0	11.0	10.9	10.6	11.3	-0.6%	1.8%	-0.2%	-2.5%	6.2%
Geothermal	1.8	2.3	3.7	4.6	5.1	5.1	4.8%	10.1%	4.6%	11.6%	0.0%
Other	8.4	10.0	11.3	12.1	12.8	13.4	3.6%	2.5%	1.3%	5.6%	4.8%
Net Imports	305.7	257.1	306.8	318.9	330.0	324.3	-3.4%	3.6%	0.8%	3.5%	-1.7%
Solids	19.0	8.5	1.1	-10.4	-9.6	-12.4	-14.9%	-33.8%	-	-7.1%	29.3%
Oil	267.2	215.7	266.4	287.5	294.2	292.4	-4.2%	4.3%	1.5%	2.3%	-0.6%
Crude oil	236.4	174.5	205.5	242.8	242.5	247.8	-5.9%	3.3%	3.4%	-0.1%	2.2%
Oil products	30.8	41.2	60.9	44.7	51.7	44.6	6.0%	8.2%	-6.0%	15.5%	-13.8%
Natural gas	19.5	33.0	39.3	41.8	45.4	44.4	11.0%	3.6%	1.2%	8.8%	-2.3%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Gross Inland Consumption	430.4	452.4	540.1	607.0	627.8	633.2	1.0%	3.6%	2.4%	3.4%	0.9%
Solids	87.9	104.2	110.1	121.3	126.6	130.2	3.5%	1.1%	2.0%	4.4%	2.9%
Oil	270.8	235.1	289.4	309.6	316.7	313.5	-2.8%	4.2%	1.4%	2.3%	-1.0%
Natural gas	29.7	49.2	61.9	72.6	77.3	76.6	10.7%	4.7%	3.2%	6.4%	-0.9%
Other (1)	42.1	63.9	78.7	103.4	107.2	112.9	8.7%	4.2%	5.6%	3.7%	5.3%
Electricity Generation in TWh	698.9	814.5	1037.4	1189.3	1214.5	1248.8	3.1%	5.0%	2.8%	2.1%	2.8%
Nuclear	82.6	159.6	202.3	291.3	302.2	319.1	14.1%	4.9%	7.6%	3.8%	5.6%
Hydro & wind	120.2	116.2	126.8	125.3	122.2	129.8	-0.7%	1.8%	-0.2%	-2.5%	6.3%
Thermal	496.1	538.7	708.3	772.7	790.1	799.9	1.7%	5.6%	1.8%	2.2%	1.2%
Generation Capacity in GWe	175.3	211.0	237.9	273.9	280.6	289.3	3.8%	2.4%	2.9%	2.5%	3.1%
Nuclear	15.7	24.7	31.6	40.5	41.9	42.7	9.5%	5.1%	5.1%	3.3%	2.0%
Hydro & wind	39.9	45.9	49.7	56.3	56.3	56.5	2.9%	1.6%	2.5%	0.1%	0.3%
Thermal	119.7	140.5	156.6	177.1	182.4	190.1	3.2%	2.2%	2.5%	3.0%	4.2%
Average Load Factor in %	45.5	44.1	49.8	49.6	49.4	49.3	-0.6%	2.5%	-0.1%	-0.3%	-0.2%
Fuel Inputs for Thermal Power Generation	113.2	115.7	147.2	158.5	166.6	163.5	0.4%	4.9%	1.5%	5.1%	-1.9%
Solids	30.8	44.3	54.2	65.7	71.3	74.1	7.5%	4.1%	3.9%	8.5%	3.9%
Oil	61.5	37.3	49.2	43.2	43.2	37.9	-9.5%	5.7%	-2.6%	0.1%	-12.4%
Gas	17.4	29.4	36.5	41.0	42.9	42.0	11.0%	4.4%	2.3%	4.4%	-1.9%
Geothermal	1.8	2.3	3.4	4.1	4.6	4.6	4.8%	8.5%	3.8%	12.0%	-0.3%
Other	1.7	2.3	3.9	4.4	4.6	4.9	6.8%	10.6%	2.8%	3.9%	6.4%
Average Thermal Efficiency in %	37.7	40.0	41.4	41.9	40.8	42.1	1.2%	0.7%	0.3%	-2.7%	3.2%
Non-Energy Uses	32.1	31.9	41.5	48.6	49.2	51.2	-0.1%	5.4%	3.2%	1.2%	4.0%
Total Final Energy Demand	258.3	273.0	321.0	357.6	366.2	369.3	1.1%	3.3%	2.2%	2.4%	0.8%
Solids	26.4	28.0	27.8	27.3	26.6	26.8	1.2%	-0.1%	-0.3%	-2.6%	0.6%
Oil	157.3	156.6	182.7	202.0	207.0	206.6	-0.1%	3.1%	2.0%	2.5%	-0.2%
Gas	15.1	19.3	23.9	29.7	31.2	31.8	4.9%	4.4%	4.5%	5.0%	1.7%
Electricity	52.6	61.3	78.6	89.9	92.1	94.5	3.1%	5.1%	2.7%	2.5%	2.6%
Heat	0.1	0.1	0.5	0.9	1.0	1.0	6.2%	28.0%	13.3%	7.7%	6.0%
Other	6.7	7.7	7.5	7.7	8.3	8.6	2.7%	-0.5%	0.5%	6.6%	3.9%
CO₂ Emissions in Mt of CO₂	1034.3	1061.2	1249.7	1364.7	1409.6	1404.2	0.5%	3.3%	1.8%	3.3%	-0.4%
Indicators											
Population (Million)	134.64	139.81	143.97	147.30	147.89	148.46	0.8%	0.6%	0.5%	0.4%	0.4%
GDP (index 1985=100)	84.8	100.0	124.2	134.5	139.7	141.2	3.3%	4.4%	1.6%	3.9%	1.0%
Gross Inl Cons./GDP (toe/1990 MEUR)	242.5	216.2	207.8	215.7	214.8	214.4	-2.3%	-0.8%	0.8%	-0.4%	-0.2%
Gross Inl Cons./Capita (toe/inhabitant)	3.20	3.24	3.75	4.12	4.25	4.27	0.2%	3.0%	1.9%	3.0%	0.5%
Electricity Generated/Capita (kWh/inhabitant)	5191	5826	7206	8074	8212	8412	2.3%	4.3%	2.3%	1.7%	2.4%
CO ₂ Emissions/Capita (t of CO ₂ /inhabitant)	7.7	7.6	8.7	9.3	9.5	9.5	-0.2%	2.7%	1.3%	2.9%	-0.8%
Import Dependency %	68.9	55.8	56.2	51.9	52.1	50.7	-4.1%	0.1%	-1.6%	0.4%	-2.7%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.



OECD PACIFIC : MAIN INDICATORS

	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Gross Inland Consumption (Mtoe)	430.4	452.4	540.1	607.0	627.8	633.2	1.0%	3.6%	2.4%	3.4%	0.9%
Public Thermal Power Generation	95.5	101.9	125.6	132.4	139.1	134.4	1.3%	4.3%	1.1%	5.0%	-3.3%
Autoprod. Thermal Power Generation	15.9	11.5	18.2	22.0	23.0	24.4	-6.3%	9.6%	3.8%	4.4%	6.5%
Energy Branch	21.2	23.3	26.2	29.3	30.2	30.9	2.0%	2.3%	2.3%	2.9%	2.2%
Final Energy Consumption	258.3	273.0	321.0	357.5	366.1	369.3	1.1%	3.3%	2.2%	2.4%	0.8%
Industry	111.8	110.4	120.2	124.2	125.9	126.8	-0.2%	1.7%	0.7%	1.3%	0.7%
Transport	75.7	80.1	100.5	116.3	120.5	123.3	1.1%	4.7%	3.0%	3.6%	2.3%
Tertiary-Domestic	70.9	82.6	100.3	117.0	119.7	119.2	3.1%	3.9%	3.1%	2.3%	-0.4%
Energy Intensity (toe/1990 MEUR)	242.5	216.2	207.8	215.7	214.8	214.4	-2.3%	-0.8%	0.8%	-0.4%	-0.2%
Public Thermal Power Generation	53.8	48.7	48.3	47.0	47.6	45.5	-2.0%	-0.1%	-0.5%	1.1%	-4.3%
Autoprod. Thermal Power Generation	9.0	5.5	7.0	7.8	7.9	8.3	-9.3%	4.9%	2.2%	0.5%	5.4%
Industry	63.0	52.7	46.2	44.2	43.1	42.9	-3.5%	-2.6%	-0.9%	-2.5%	-0.3%
Transport	42.6	38.3	38.7	41.3	41.2	41.7	-2.1%	0.2%	1.3%	-0.3%	1.2%
Tertiary-Domestic	39.9	39.5	38.6	41.6	40.9	40.3	-0.2%	-0.5%	1.5%	-1.5%	-1.5%
Energy per Capita (Kgoe/inhabitant)	3197	3236	3752	4121	4245	4265	0.2%	3.0%	1.9%	3.0%	0.5%
Industry	830	789	835	844	851	854	-1.0%	1.1%	0.2%	0.9%	0.3%
Transport	562	573	698	790	815	830	0.4%	4.0%	2.5%	3.2%	1.9%
Tertiary-Domestic	527	591	696	794	809	803	2.3%	3.3%	2.7%	1.9%	-0.8%
Electricity Share (%)											
Final Energy Consumption	20.4%	22.5%	24.5%	25.1%	25.2%	25.6%	2.0%	1.7%	0.5%	0.1%	1.7%
Industry	28.3%	28.2%	32.0%	32.8%	33.1%	33.6%	-0.1%	2.6%	0.5%	0.9%	1.5%
Transport	1.8%	1.9%	1.9%	1.7%	1.7%	1.7%	0.5%	-0.2%	-1.3%	-3.5%	-0.8%
Tertiary-Domestic	27.6%	34.8%	38.1%	40.3%	40.5%	41.8%	4.7%	1.8%	1.1%	0.4%	3.3%
Total Renewable Consumption (Mtoe)	20.6	22.3	26.0	27.5	28.5	29.8	1.7%	3.1%	1.2%	3.4%	4.5%
Hydro	10.3	10.0	10.9	10.8	10.5	11.2	-0.7%	1.8%	-0.2%	-2.5%	6.3%
Biomass	8.4	10.0	11.3	12.1	12.8	13.4	3.6%	2.5%	1.3%	5.6%	4.8%
Other	1.8	2.3	3.8	4.7	5.2	5.2	5.0%	10.1%	4.5%	11.5%	0.1%
Renewable intensity (toe/1990MEUR)	11.6	10.7	10.0	9.8	9.7	10.1	-1.6%	-1.3%	-0.4%	-0.4%	3.4%
Renewable per capita (Kgoe/inhabitant)	152.7	159.7	180.5	187.0	192.6	200.5	0.9%	2.5%	0.7%	3.0%	4.1%
CO₂ Emissions (Mt of CO₂)	1034.3	1061.2	1249.7	1364.7	1409.6	1404.2	0.5%	3.3%	1.8%	3.3%	-0.4%
Public Thermal Power Generation	265.0	258.8	317.7	333.2	352.8	344.6	-0.5%	4.2%	1.0%	5.9%	-2.3%
Autoprod. Thermal Power Generation	46.4	31.4	49.2	60.4	63.4	67.2	-7.5%	9.4%	4.2%	4.9%	6.0%
Energy Branch	54.8	58.5	62.1	67.3	69.1	70.6	1.3%	1.2%	1.6%	2.6%	2.1%
Industry	251.2	246.5	253.9	256.5	256.0	255.0	-0.4%	0.6%	0.2%	-0.2%	-0.4%
Transport	228.0	241.1	302.7	350.7	363.6	372.0	1.1%	4.7%	3.0%	3.7%	2.3%
Tertiary-Domestic	145.5	151.5	173.5	194.8	198.8	192.4	0.8%	2.8%	2.3%	2.1%	-3.2%
Carbon Intensity (tn of CO₂/toe)	2.4	2.3	2.3	2.2	2.2	2.2	-0.5%	-0.3%	-0.6%	-0.1%	-1.2%
Public Power Generation	2.1	1.7	1.7	1.5	1.5	1.5	-4.1%	-0.2%	-2.0%	1.4%	-2.5%
Public Thermal Power Generation	2.8	2.5	2.5	2.5	2.5	2.6	-1.7%	-0.1%	-0.1%	0.8%	1.0%
Autoprod. Power Generation	2.8	2.5	2.6	2.6	2.6	2.6	-2.0%	0.3%	0.4%	1.2%	0.2%
Autoprod. Thermal Power Generation	2.9	2.7	2.7	2.7	2.8	2.7	-1.3%	-0.2%	0.3%	0.5%	-0.5%
Energy Branch	0.0	2.9	2.8	2.7	2.6	2.6	-	-0.6%	-1.0%	-0.7%	-0.2%
Industry	2.6	2.5	2.4	2.3	2.3	2.3	-0.6%	-1.1%	-0.6%	-0.3%	-0.1%
Transport	2.2	2.2	2.1	2.1	2.0	2.0	-0.1%	-1.1%	-0.4%	-1.5%	-1.1%
Tertiary-Domestic	3.0	3.0	3.0	3.0	3.0	3.0	0.0%	0.0%	0.0%	0.1%	0.0%
CO₂ per Capita (kg of CO₂/inhabitant)	7682	7590	8680	9265	9531	9459	-0.2%	2.7%	1.3%	2.9%	-0.8%
Industry	1866	1763	1763	1742	1731	1718	-1.1%	0.0%	-0.2%	-0.6%	-0.7%
Transport	1693	1724	2102	2381	2459	2506	0.4%	4.0%	2.5%	3.3%	1.9%
Tertiary-Domestic	1081	1083	1205	1322	1344	1296	0.0%	2.2%	1.9%	1.7%	-3.6%
CO₂ per unit of GDP (tn of CO₂/1990 MEUR)	583	507	481	485	482	475	-2.7%	-1.1%	0.2%	-0.6%	-1.4%
Public Thermal Power Generation	149	124	122	118	121	117	-3.7%	-0.2%	-0.6%	1.9%	-3.3%
Autoprod. Thermal Power Generation	26	15	19	21	22	23	-10.5%	4.8%	2.5%	1.0%	4.9%
Energy Branch	0	0	0	0	0	0	-	1.0%	5.8%	-1.3%	-0.3%
Industry	31	28	24	24	24	24	-2.0%	-3.1%	0.0%	-1.2%	1.1%
Transport	142	118	98	91	88	86	-3.6%	-3.7%	-1.4%	-4.0%	-1.4%
Tertiary-Domestic	128	115	116	125	124	126	-2.2%	0.2%	1.4%	-0.2%	1.2%



JAPAN : SUMMARY ENERGY BALANCE											
Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Primary Production	47.5	67.7	75.6	99.1	102.5	107.0	7.3%	2.2%	5.6%	3.4%	4.4%
Solids	10.9	9.6	4.6	3.5	3.6	2.4	-2.5%	-13.8%	-5.5%	3.5%	-34.0%
Oil	0.5	0.6	0.6	0.8	0.8	0.8	2.5%	0.8%	5.9%	-2.2%	0.5%
Natural gas	1.9	2.0	1.8	1.9	2.0	2.0	0.3%	-1.7%	1.6%	1.0%	2.2%
Nuclear	21.5	41.6	52.7	75.9	78.8	83.1	14.1%	4.9%	7.6%	3.8%	5.6%
Hydro & Wind	7.6	7.1	7.7	7.1	6.9	7.7	-1.3%	1.5%	-1.7%	-1.9%	11.5%
Geothermal	0.8	1.3	1.5	2.9	3.4	3.5	10.7%	3.1%	14.3%	16.5%	2.6%
Other	4.3	5.5	6.7	7.0	7.0	7.5	5.2%	4.1%	0.7%	1.1%	5.9%
Net Imports	318.8	308.4	369.3	404.6	415.6	416.5	-0.7%	3.7%	1.8%	2.7%	0.2%
Solids	47.5	63.4	69.0	79.0	81.5	83.2	5.9%	1.7%	2.7%	3.2%	2.1%
Oil	251.7	212.1	258.7	275.6	279.9	280.3	-3.4%	4.1%	1.3%	1.6%	0.1%
Crude oil	223.0	172.2	198.5	232.1	229.1	236.2	-5.0%	2.9%	3.2%	-1.3%	3.1%
Oil products	28.7	39.9	60.2	43.5	50.8	44.1	6.8%	8.6%	-6.3%	17.0%	-13.2%
Natural gas	19.5	33.0	41.7	50.0	54.3	53.0	11.0%	4.8%	3.7%	8.5%	-2.3%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Gross Inland Consumption	350.8	367.0	438.8	497.0	510.4	514.9	0.9%	3.6%	2.5%	2.7%	0.9%
Solids	59.6	73.0	74.0	82.6	84.6	86.5	4.1%	0.3%	2.2%	2.5%	2.2%
Oil	235.6	203.6	252.9	269.6	273.5	271.6	-2.9%	4.4%	1.3%	1.5%	-0.7%
Natural gas	21.4	35.0	43.3	52.0	56.1	54.9	10.3%	4.3%	3.8%	7.8%	-2.0%
Other (1)	34.2	55.5	68.6	92.9	96.1	101.8	10.2%	4.3%	6.2%	3.5%	5.9%
Electricity Generation in TWh	581.0	666.9	850.8	980.8	1000.4	1029.5	2.8%	5.0%	2.9%	2.0%	2.9%
Nuclear	82.6	159.6	202.3	291.3	302.2	319.1	14.1%	4.9%	7.6%	3.8%	5.6%
Hydro & wind	88.3	82.9	89.3	82.1	80.5	89.8	-1.3%	1.5%	-1.7%	-1.9%	11.5%
Thermal	410.2	424.5	559.2	607.4	617.7	620.6	0.7%	5.7%	1.7%	1.7%	0.5%
Generation Capacity in GWe	143.7	169.4	194.7	226.5	231.2	236.5	3.3%	2.8%	3.1%	2.0%	2.3%
Nuclear	15.7	24.7	31.6	40.5	41.9	42.7	9.5%	5.1%	5.1%	3.3%	2.0%
Hydro & wind	29.8	34.3	37.8	43.8	43.8	43.8	2.9%	2.0%	3.0%	0.0%	0.2%
Thermal	98.3	110.3	125.3	142.3	145.5	149.9	2.3%	2.6%	2.6%	2.3%	3.0%
Average Load Factor in %	46.1	45.0	49.9	49.4	49.4	49.7	-0.5%	2.1%	-0.2%	0.0%	0.6%
Fuel Inputs for Thermal Power Generation	88.7	85.9	110.0	119.7	124.4	119.6	-0.6%	5.1%	1.7%	3.9%	-3.8%
Solids	10.5	20.5	25.3	34.6	36.9	38.1	14.3%	4.3%	6.5%	6.6%	3.4%
Oil	60.3	36.4	48.4	42.4	42.5	37.3	-9.6%	5.9%	-2.6%	0.1%	-12.2%
Gas	15.6	25.7	31.8	36.4	38.2	37.1	10.5%	4.4%	2.7%	5.0%	-3.0%
Geothermal	0.8	1.3	1.5	2.7	3.2	3.2	10.7%	3.1%	12.8%	15.8%	2.2%
Other	1.5	2.1	3.0	3.5	3.6	3.9	6.8%	7.9%	3.1%	3.1%	7.6%
Average Thermal Efficiency in %	39.8	42.5	43.7	43.7	42.7	44.6	1.3%	0.6%	0.0%	-2.2%	4.5%
Non-Energy Uses	29.1	28.0	36.8	43.0	43.1	45.2	-0.7%	5.6%	3.1%	0.4%	4.7%
Total Final Energy Demand	206.7	218.3	257.7	287.3	293.8	295.3	1.1%	3.4%	2.2%	2.3%	0.5%
Solids	21.4	22.8	22.5	22.0	21.5	21.7	1.3%	-0.3%	-0.5%	-2.4%	1.0%
Oil	128.6	129.3	151.5	167.4	171.2	170.0	0.1%	3.2%	2.0%	2.3%	-0.7%
Gas	9.7	11.8	14.7	19.1	20.5	20.8	3.9%	4.6%	5.3%	7.4%	1.5%
Electricity	44.1	50.8	65.1	74.8	76.6	78.5	2.9%	5.1%	2.8%	2.4%	2.5%
Heat	0.1	0.1	0.2	0.6	0.6	0.7	6.2%	7.9%	22.8%	13.6%	8.4%
Other	2.8	3.4	3.7	3.5	3.4	3.6	4.3%	1.5%	-1.4%	-0.9%	3.9%
CO₂ Emissions in Mt of CO₂	812.2	821.2	966.9	1058.6	1085.7	1071.3	0.2%	3.3%	1.8%	2.6%	-1.3%
Indicators											
Population (Million)	116.80	120.75	123.54	125.57	125.86	126.17	0.7%	0.5%	0.3%	0.2%	0.2%
GDP (index 1985=100)	84.7	100.0	125.4	134.7	140.0	141.2	3.4%	4.6%	1.4%	3.9%	0.8%
Gross Inl Cons./GDP (toe/1990 MEUR)	222.5	197.2	188.1	198.3	195.9	196.0	-2.4%	-0.9%	1.1%	-1.2%	0.0%
Gross Inl Cons./Capita (toe/inhabitant)	3.00	3.04	3.55	3.96	4.05	4.08	0.2%	3.2%	2.2%	2.4%	0.6%
Electricity Generated/Capita (kWh/inhabitant)	4975	5523	6886	7811	7949	8160	2.1%	4.5%	2.6%	1.8%	2.7%
CO ₂ Emissions/Capita (t of CO ₂ /inhabitant)	7.0	6.8	7.8	8.4	8.6	8.5	-0.4%	2.9%	1.5%	2.3%	-1.6%
Import Dependency (%)	88.0	82.4	83.2	80.4	80.8	80.1	-1.3%	0.2%	-0.7%	0.4%	-0.8%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.



EFTA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Primary Production	63.6	83.4	131.2	194.7	220.5	225.1	5.6%	9.5%	8.2%	13.2%	2.1%
Solids	0.2	0.4	0.2	0.2	0.2	0.3	11.9%	-10.6%	-0.7%	-21.4%	68.2%
Oil	25.0	39.5	84.4	142.3	161.1	160.8	9.6%	16.4%	11.0%	13.2%	-0.2%
Natural gas	22.8	23.4	24.1	28.3	37.4	41.0	0.6%	0.6%	3.2%	32.2%	9.8%
Nuclear	3.7	5.9	6.2	6.5	6.6	6.6	9.5%	1.0%	1.0%	1.0%	1.1%
Hydro & Wind	10.3	11.9	13.3	13.9	11.8	12.8	2.9%	2.3%	0.8%	-15.1%	8.9%
Geothermal	0.6	0.8	1.0	1.0	1.0	1.0	8.0%	2.8%	0.2%	1.6%	4.0%
Other	1.1	1.6	2.0	2.6	2.5	2.6	7.7%	4.8%	5.5%	-1.9%	0.8%
Net Imports	-21.4	-38.5	-80.4	-142.9	-166.6	-171.6	12.4%	15.9%	12.2%	16.5%	3.0%
Solids	1.3	1.3	1.1	1.1	1.0	0.9	0.2%	-4.2%	0.1%	-4.5%	-9.9%
Oil	-1.0	-18.0	-59.4	-120.2	-136.9	-137.5	79.6%	26.9%	15.2%	13.9%	0.5%
Crude oil	-11.4	-26.9	-65.2	-122.9	-139.0	-140.5	18.8%	19.4%	13.5%	13.1%	1.1%
Oil products	10.4	8.9	5.8	2.7	2.1	3.0	-3.2%	-8.0%	-14.2%	-23.1%	44.0%
Natural gas	-21.0	-21.0	-20.5	-22.6	-31.4	-34.8	-0.1%	-0.4%	1.9%	38.9%	10.8%
Electricity	-0.7	-0.8	-1.5	-1.2	0.7	-0.3	1.4%	14.3%	-5.0%	-	-
Gross Inland Consumption	41.2	45.1	48.6	50.9	51.5	52.8	1.9%	1.5%	0.9%	1.3%	2.4%
Solids	1.4	1.7	1.3	1.3	1.2	1.2	5.2%	-5.9%	-0.2%	-4.6%	-1.5%
Oil	23.1	21.5	22.7	21.2	21.8	22.5	-1.4%	1.1%	-1.4%	2.8%	3.6%
Natural gas	1.7	2.4	3.6	5.7	6.0	6.2	7.1%	8.1%	9.4%	5.4%	4.2%
Other (1)	14.9	19.4	20.9	22.8	22.6	22.8	5.4%	1.5%	1.7%	-0.8%	1.1%
Electricity Generation in TWh	135.1	162.2	180.7	189.3	165.2	177.7	3.7%	2.2%	0.9%	-12.8%	7.6%
Nuclear	14.3	22.6	23.6	24.9	25.1	25.4	9.5%	0.9%	1.0%	1.0%	1.1%
Hydro & wind	119.5	138.1	155.1	161.2	136.8	149.0	2.9%	2.3%	0.8%	-15.2%	9.0%
Thermal	1.3	1.5	2.0	3.2	3.3	3.2	3.2%	5.9%	10.5%	1.1%	-0.7%
Generation Capacity in GWe	34.8	39.8	43.7	45.4	44.8	44.8	2.7%	1.9%	0.8%	-1.4%	0.1%
Nuclear	1.9	2.9	3.0	3.1	3.1	3.1	8.5%	0.2%	0.7%	1.0%	0.0%
Hydro & wind	31.8	35.6	39.3	40.9	40.2	40.2	2.3%	2.0%	0.8%	-1.7%	0.1%
Thermal	1.1	1.2	1.5	1.5	1.5	1.5	2.0%	4.2%	0.7%	0.0%	-0.1%
Average Load Factor in %	44.3	46.6	47.2	47.6	42.1	45.3	1.0%	0.3%	0.2%	-11.5%	7.5%
Fuel Inputs for Thermal Power Generation	0.5	0.9	1.1	1.5	1.6	1.5	11.6%	3.9%	6.4%	6.9%	-2.0%
Solids	0.0	0.1	0.1	0.0	0.0	0.0	15.8%	0.0%	-4.4%	2.5%	-12.2%
Oil	0.2	0.2	0.1	0.1	0.1	0.0	2.8%	-10.7%	-10.9%	32.8%	-48.1%
Gas	0.1	0.1	0.1	0.2	0.2	0.2	-1.4%	1.0%	8.2%	31.1%	5.6%
Geothermal	0.1	0.2	0.4	0.4	0.5	0.5	23.3%	10.6%	3.2%	8.6%	8.3%
Other	0.2	0.3	0.5	0.8	0.8	0.8	17.7%	6.0%	11.6%	-0.2%	-4.8%
Average Thermal Efficiency in %	21.0	14.2	15.6	18.9	17.9	18.1	-7.5%	1.9%	3.8%	-5.4%	1.3%
Non-Energy Uses	2.2	2.5	2.5	2.5	2.4	2.4	2.1%	0.0%	0.4%	-5.6%	-1.1%
Total Final Energy Demand	33.0	35.7	36.9	38.6	39.6	39.2	1.6%	0.7%	0.9%	2.5%	-1.0%
Solids	1.2	1.5	1.2	1.2	1.2	1.1	4.9%	-4.8%	0.3%	-3.7%	-3.8%
Oil	19.7	19.3	19.0	19.0	20.0	19.6	-0.5%	-0.2%	0.0%	4.8%	-2.0%
Gas	0.7	1.1	1.5	2.1	2.2	2.1	9.4%	5.9%	6.3%	6.7%	-4.4%
Electricity	9.7	11.7	12.7	13.5	13.5	13.5	3.8%	1.6%	1.2%	-0.2%	0.4%
Heat	0.7	0.9	1.0	1.1	1.1	1.1	5.6%	2.3%	1.7%	1.0%	1.5%
Other	0.9	1.2	1.5	1.8	1.8	1.8	5.7%	4.5%	3.5%	-2.5%	3.5%
CO₂ Emissions in Mt of CO₂	72.2	74.0	75.7	80.9	84.8	84.1	0.5%	0.5%	1.3%	4.8%	-0.9%
Indicators											
Population (Million)	10.70	10.93	11.29	11.71	11.76	11.79	0.4%	0.7%	0.7%	0.4%	0.3%
GDP (index 1985=100)	90.6	100.0	112.4	119.6	122.1	125.1	2.0%	2.4%	1.2%	2.1%	2.4%
Gross Inl Cons./GDP (toe/1990 MEUR)	185.6	184.4	176.5	173.8	172.4	172.4	-0.1%	-0.9%	-0.3%	-0.8%	0.0%
Gross Inl Cons./Capita (toe/inhabitant)	3.85	4.13	4.30	4.34	4.38	4.48	1.4%	0.8%	0.2%	0.9%	2.2%
Electricity Generated/Capita (kWh/inhabitant)	12628	14839	16006	16172	14053	15074	3.3%	1.5%	0.2%	-13.1%	7.3%
CO ₂ Emissions/Capita (t of CO ₂ /inhabitant)	6.7	6.8	6.7	6.9	7.2	7.1	0.1%	-0.2%	0.6%	4.4%	-1.2%
Import Dependency (%)	-51.7	-84.6	-163.9	-276.8	-318.2	-319.0	10.4%	14.1%	11.1%	15.0%	0.3%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.



EFTA : MAIN INDICATORS											
	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
	Annual % Change										
Gross Inland Consumption (Mtoe)	41.2	45.1	48.6	50.9	51.5	52.8	1.9%	1.5%	0.9%	1.3%	2.4%
Public Thermal Power Generation	0.3	0.5	0.6	0.8	0.9	0.8	10.1%	1.5%	8.2%	1.9%	-3.6%
Autoprod. Thermal Power Generation	0.1	0.1	0.1	0.2	0.3	0.2	5.3%	0.4%	6.7%	23.8%	-14.9%
Energy Branch	1.8	2.2	3.4	4.9	5.1	5.6	4.4%	8.8%	7.9%	3.7%	9.2%
Final Energy Consumption	33.0	35.7	36.9	38.5	39.5	39.1	1.6%	0.6%	0.9%	2.6%	-1.1%
Industry	10.7	11.3	9.9	10.3	10.2	10.3	1.0%	-2.7%	0.9%	-1.3%	1.8%
Transport	7.8	8.9	10.8	11.1	11.5	11.7	2.5%	4.0%	0.6%	2.8%	2.4%
Tertiary-Domestic	14.4	15.5	16.2	17.1	17.9	17.0	1.5%	0.9%	1.1%	4.7%	-4.8%
Energy Intensity (toe/1990 MEUR)	185.6	184.4	176.5	173.8	172.4	172.4	-0.1%	-0.9%	-0.3%	-0.8%	0.0%
Public Thermal Power Generation	1.5	2.2	2.1	2.9	2.9	2.7	8.0%	-0.8%	6.9%	-0.2%	-5.9%
Autoprod. Thermal Power Generation	0.5	0.6	0.5	0.7	0.9	0.7	3.2%	-1.9%	5.4%	21.2%	-16.9%
Industry	48.5	46.2	35.8	35.2	34.0	33.8	-0.9%	-5.0%	-0.3%	-3.3%	-0.7%
Transport	35.4	36.2	39.3	38.1	38.3	38.3	0.5%	1.6%	-0.6%	0.6%	-0.1%
Tertiary-Domestic	64.9	63.4	58.9	58.4	59.9	55.7	-0.4%	-1.5%	-0.2%	2.6%	-7.1%
Energy per Capita (Kgoe/inhabitant)	3846	4129	4300	4345	4382	4477	1.4%	0.8%	0.2%	0.9%	2.2%
Industry	1004	1035	872	880	865	878	0.6%	-3.4%	0.2%	-1.7%	1.5%
Transport	733	811	956	952	974	995	2.0%	3.4%	-0.1%	2.3%	2.1%
Tertiary-Domestic	1345	1420	1435	1460	1523	1445	1.1%	0.2%	0.3%	4.3%	-5.1%
Electricity Share (%)											
Final Energy Consumption	29.5%	32.8%	34.5%	35.0%	34.0%	34.5%	2.2%	1.0%	0.3%	-2.7%	1.5%
Industry	43.1%	48.7%	57.3%	55.6%	53.9%	55.0%	2.5%	3.3%	-0.6%	-3.2%	2.2%
Transport	3.0%	2.8%	2.7%	3.2%	3.2%	3.1%	-1.5%	-0.8%	3.4%	-1.0%	-2.3%
Tertiary-Domestic	33.7%	38.3%	41.7%	43.3%	42.5%	43.7%	2.6%	1.7%	0.7%	-1.7%	2.8%
Total Renewable Consumption (Mtoe)	11.9	14.3	16.3	17.5	15.3	16.4	3.7%	2.7%	1.4%	-12.2%	7.3%
Hydro	10.3	11.9	13.3	13.9	11.8	12.8	2.9%	2.3%	0.8%	-15.2%	9.0%
Biomass	1.1	1.6	2.0	2.6	2.6	2.6	7.7%	4.8%	5.5%	-1.9%	0.9%
Other	0.6	0.8	1.0	1.0	1.0	1.1	8.0%	2.8%	0.6%	1.8%	4.1%
Renewable intensity (toe/1990MEUR)	53.8	58.4	59.3	59.7	51.3	53.7	1.7%	0.3%	0.1%	-14.0%	4.7%
Renewable per capita (Kgoe/inhabitant)	1115.5	1307.9	1443.3	1491.2	1303.7	1394.9	3.2%	2.0%	0.7%	-12.6%	7.0%
CO₂ Emissions (Mt of CO₂)	72.2	74.0	75.7	80.9	84.8	84.1	0.5%	0.5%	1.3%	4.8%	-0.9%
Public Thermal Power Generation	0.4	0.5	0.4	0.2	0.2	0.1	3.3%	-6.8%	-11.7%	-11.6%	-34.4%
Autoprod. Thermal Power Generation	0.3	0.4	0.3	0.4	0.5	0.5	4.8%	-3.3%	1.9%	49.4%	-15.0%
Energy Branch	4.2	5.1	8.2	11.9	12.6	13.6	3.8%	9.8%	7.8%	6.1%	7.9%
Industry	18.3	16.9	11.6	11.8	12.3	11.9	-1.5%	-7.3%	0.4%	4.1%	-3.4%
Transport	23.3	26.4	32.2	33.1	34.0	34.9	2.5%	4.1%	0.5%	2.8%	2.4%
Tertiary-Domestic	25.5	24.5	23.0	23.4	25.0	22.9	-0.8%	-1.3%	0.3%	6.8%	-8.2%
Carbon Intensity (tn of CO₂/toe)	1.8	1.6	1.6	1.6	1.6	1.6	-1.3%	-1.0%	0.4%	3.5%	-3.3%
Public Power Generation	0.0	0.0	0.0	0.0	0.0	0.0	-2.1%	-8.8%	-12.7%	-3.2%	-38.0%
Public Thermal Power Generation	1.4	1.0	0.7	0.2	0.2	0.1	-6.2%	-8.2%	-18.4%	-13.2%	-32.0%
Autoprod. Power Generation	0.2	0.3	0.2	0.2	0.4	0.3	3.5%	-3.3%	0.1%	67.6%	-16.7%
Autoprod. Thermal Power Generation	2.8	2.7	2.2	1.8	2.1	2.1	-0.4%	-3.6%	-4.5%	20.7%	-0.2%
Energy Branch	0.0	0.1	0.1	0.4	1.1	0.8	-	-0.1%	26.7%	160.6%	-33.2%
Industry	2.4	2.3	2.4	2.4	2.5	2.5	-0.5%	1.0%	0.0%	2.3%	-1.3%
Transport	1.7	1.5	1.2	1.1	1.2	1.1	-2.6%	-4.7%	-0.5%	5.5%	-5.1%
Tertiary-Domestic	3.0	3.0	3.0	3.0	3.0	3.0	0.0%	0.0%	-0.1%	0.0%	0.1%
CO₂ per Capita (kg of CO₂/inhabitant)	6747	6773	6708	6912	7216	7132	0.1%	-0.2%	0.6%	4.4%	-1.2%
Industry	1712	1551	1025	1007	1045	1007	-2.0%	-8.0%	-0.3%	3.7%	-3.7%
Transport	2181	2419	2856	2828	2896	2958	2.1%	3.4%	-0.2%	2.4%	2.2%
Tertiary-Domestic	2381	2245	2037	1999	2126	1946	-1.2%	-1.9%	-0.4%	6.4%	-8.5%
CO₂ per unit of GDP (tn of CO₂/1990 MEUR)	326	302	275	277	284	275	-1.5%	-1.9%	0.1%	2.7%	-3.2%
Public Thermal Power Generation	2	2	1	1	1	0	1.3%	-8.9%	-12.8%	-13.4%	-36.0%
Autoprod. Thermal Power Generation	1	2	1	1	2	2	2.8%	-5.5%	0.6%	46.3%	-17.1%
Energy Branch	0	0	0	0	0	0	-	23.9%	27.7%	270.7%	-39.1%
Industry	19	21	30	41	42	44	1.8%	7.3%	6.5%	3.9%	5.3%
Transport	83	69	42	40	41	39	-3.5%	-9.5%	-0.9%	2.0%	-5.7%
Tertiary-Domestic	105	108	117	113	114	114	0.5%	1.7%	-0.7%	0.7%	0.0%

NORWAY : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1995	1996	1997	85/80	90/85	95/90	96/95	97/96
							Annual % Change				
Primary Production	55.7	72.9	120.1	182.4	208.6	212.7	5.5%	10.5%	8.7%	14.4%	1.9%
Solids	0.2	0.4	0.2	0.2	0.2	0.3	11.9%	-10.6%	-0.7%	-21.4%	68.2%
Oil	25.0	39.5	84.4	142.3	161.1	160.8	9.6%	16.4%	11.0%	13.2%	-0.2%
Natural gas	22.8	23.4	24.1	28.3	37.4	41.0	0.5%	0.6%	3.2%	32.2%	9.8%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	7.2	8.8	10.4	10.4	8.9	9.4	4.1%	3.4%	0.0%	-14.6%	5.9%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.6	0.8	1.0	1.2	1.1	1.2	5.9%	4.2%	3.2%	-6.9%	5.8%
Net Imports	-36.2	-52.4	-96.3	-157.6	-182.6	-187.5	7.7%	12.9%	10.3%	15.8%	2.7%
Solids	0.8	0.9	0.7	0.9	0.9	0.8	2.0%	-5.2%	5.2%	-0.7%	-6.9%
Oil	-15.1	-31.1	-73.5	-133.1	-150.5	-151.6	15.5%	18.8%	12.6%	13.0%	0.7%
Crude oil	-16.1	-31.2	-68.4	-127.7	-144.5	-145.7	14.1%	17.0%	13.3%	13.1%	0.8%
Oil products	1.0	0.2	-5.1	-5.4	-6.0	-5.9	-29.4%	-	1.4%	10.7%	-1.3%
Natural gas	-21.9	-22.2	-22.2	-24.8	-33.8	-37.1	0.3%	0.0%	2.3%	36.2%	9.8%
Electricity	0.0	0.0	-1.4	-0.6	0.8	0.3	3.3%	96.2%	-16.0%	-	-57.4%
Gross Inland Consumption	18.8	20.3	21.5	23.5	23.6	24.2	1.6%	1.1%	1.9%	0.4%	2.6%
Solids	1.0	1.2	0.9	1.0	1.0	1.0	3.0%	-5.9%	3.5%	-2.0%	2.5%
Oil	9.2	8.4	8.6	8.0	8.3	8.3	-1.7%	0.4%	-1.3%	3.1%	1.2%
Natural gas	0.9	1.2	2.0	3.5	3.6	3.9	6.3%	10.9%	11.9%	3.6%	9.3%
Other (1)	7.8	9.6	10.1	11.0	10.8	10.9	4.3%	1.0%	1.9%	-2.4%	1.4%
Electricity Generation in TWh	83.8	102.7	121.6	122.1	104.4	110.5	4.2%	3.4%	0.1%	-14.4%	5.8%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	83.6	102.4	121.1	121.3	103.6	109.8	4.1%	3.4%	0.0%	-14.6%	6.0%
Thermal	0.1	0.3	0.5	0.7	0.8	0.7	20.4%	6.1%	8.8%	17.4%	-14.5%
Generation Capacity in GWe	20.0	23.7	27.1	27.6	27.7	27.7	3.4%	2.8%	0.3%	0.3%	0.2%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	19.8	23.4	26.9	27.3	27.4	27.4	3.4%	2.8%	0.3%	0.3%	0.2%
Thermal	0.2	0.3	0.3	0.3	0.3	0.3	1.5%	-0.3%	3.2%	0.0%	0.0%
Average Load Factor in %	47.8	49.6	51.2	50.5	43.1	45.5	0.7%	0.6%	-0.3%	-14.7%	5.6%
Fuel Inputs for Thermal Power Generation	0.0	0.1	0.1	0.2	0.2	0.1	22.9%	1.3%	7.2%	3.3%	-12.0%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	20.1%	12.5%	1.6%	5.1%	-12.2%
Oil	0.0	0.1	0.0	0.0	0.0	0.0	19.8%	-50.7%	-100.0%	-	-
Gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	29.2%	-16.1%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.0	0.0	0.1	0.1	0.1	0.1	-	42.3%	5.2%	-4.4%	-10.5%
Average Thermal Efficiency in %	32.7	29.5	37.1	39.8	45.2	43.9	-2.1%	4.7%	1.4%	13.7%	-2.9%
Non-Energy Uses	1.6	1.9	1.8	1.9	1.8	1.8	4.1%	-1.0%	0.9%	-6.0%	-1.8%
Total Final Energy Demand	14.8	15.9	16.2	17.3	17.7	17.6	1.4%	0.4%	1.3%	2.5%	-0.3%
Solids	0.9	1.0	0.8	1.0	1.0	0.9	2.5%	-4.5%	4.2%	-0.6%	-0.1%
Oil	6.9	6.2	6.1	6.2	6.8	6.6	-2.1%	-0.2%	0.3%	9.0%	-2.3%
Gas	0.0	0.0	0.0	0.0	0.0	0.0	-100.0%	-	-	-	-
Electricity	6.4	7.9	8.3	8.9	8.9	8.9	4.1%	1.2%	1.4%	-0.6%	0.3%
Heat	0.0	0.0	0.1	0.1	0.1	0.1	-	14.3%	7.5%	8.5%	-0.9%
Other	0.6	0.8	0.9	1.1	1.0	1.1	5.5%	3.0%	3.2%	-7.1%	7.2%
CO₂ Emissions in Mt of CO₂	28.1	27.7	29.7	34.1	36.5	37.0	-0.3%	1.4%	2.8%	7.0%	1.4%
Indicators											
Population (Million)	4.09	4.15	4.24	4.36	4.38	4.41	0.3%	0.4%	0.6%	0.5%	0.5%
GDP (index 1985=100)	85.7	100.0	108.6	130.2	137.3	142.0	3.1%	1.7%	3.7%	5.5%	3.4%
Gross Inl Cons./GDP (toe/1990 MEUR)	263.0	243.5	236.6	216.5	206.0	204.3	-1.5%	-0.6%	-1.8%	-4.8%	-0.8%
Gross Inl Cons./Capita (toe/inhabitant)	4.61	4.89	5.06	5.40	5.39	5.50	1.2%	0.7%	1.3%	-0.1%	2.0%
Electricity Generated/Capita (kWh/inhabitant)	20497	24736	28675	28001	23836	25080	3.8%	3.0%	-0.5%	-14.9%	5.2%
CO ₂ Emissions/Capita (t of CO ₂ /inhabitant)	6.9	6.7	7.0	7.8	8.3	8.4	-0.7%	1.0%	2.3%	6.4%	0.8%
Import Dependency (%)	-189.8	-253.9	-439.9	-650.4	-748.7	-744.6	6.0%	11.6%	8.1%	15.1%	-0.5%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.