DIRECTORATE - GENERAL FOR ENERGY (DG XVII)

ENERGY IN EUROPE

1996 - ANNUAL ENERGY REVIEW

SPECIAL ISSUE - SEPTEMBER 1996

EUROPEAN COMMISSION

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CONTENTS

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ABBREVIATIONS, DEFINITIONS AND UNITS

CIS	Community of Independant States
DG II	Directorate-General for Economic Affairs of the European Commission
DG XVII	Directorate-General for Energy of the European Commission
EFTA	European Free Trade Agreement
Energy Intensity	Ratio of GIC to GDP
EU	European Union
GCC	Gulf Co-operation Council
GDP	Gross Domestic Product
GIC	Gross Inland Consumption
GDR	German Democratic Republic
GW	GigaWatt, or 10^9 Watt
IAEA	International Atomic Energy Agency
IEA	International Energy Agency
IMF	International Monetary Fund
kgoe	Kilogram oil equivalent
kl	Thousand litre
kWh	Thousand Watt.hour
l	Litre
MECU	Million ECU
Mt	Million metric tonne
Mtoe	Million toe
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development (excluding Hungary, Czech Republic and Poland)
OLADE	Organizacion Latinoamericana de Energia
S	Sulphur
SOEC	Statistical Office of the European Commission
STEO	Short-Term Energy Outlook for the European Union
t	Metric tonne, or 1000 kilograms
toe	Tonne of oil equivalent, or 10^7 kilocalories, or 41.86 GJ
TWh	Tera Watt.hour, or 10^{12} Watt.hour
UN	United Nations
UN-ECE	UN's Economic Commission for Europe
WB	World Bank

FOREWORD BY MR. P. BENAVIDES,
Director-General for Energy

In January 1996 the European Commission published its White Paper on energy policy. From the wide-ranging discussions on the Green Paper of a year earlier the Commission was able to distill four priorities for European energy policy. Integration of the market, management of external dependency, building sustainable development, and creating a favourable climate for energy technology and research were identified as its four cornerstones. In the pursuit of a real consensus around these priorities at Union level, shared analysis is now an essential tool in the process of shaping these cornerstones. The aim of the Annual Energy Review is to support the discussion by both providing the hard facts about the past and uncovering the trends which underlie the near future.

After long negotiations, European electricity markets are now on the path to competition and freedom of choice. Gas markets are facing the same situation, at a quickening pace thanks to the historic agreement on electricity. The growing importance of gas again revealed by our new Review also points to the need for monitoring the markets. Of course oil remains a vital energy source, at the present stage of technology especially as regards transport, and the geopolitical implications of oil supply obviously demand constant watchfulness.

The Annual Energy Review has been changed considerably, in format and content, for this edition as compared with its predecessor which appeared in mid-1994. Substantial and ongoing changes in energy policy and the markets themselves have been taken into account. In future Reviews there will no doubt continue to be further shifts in focus, and consideration of new aspects of energy policy itself. The relative importance of issues covered to date must be reassessed. Creating consistent energy policy in the framework of the White Paper sounds like a straightforward venture. However, it is sometimes said that only change is constant, and this adage becomes a truism when speaking about markets. In this sense the primary purpose of the Annual Energy Review remains its original one of making conveniently available and assessing these mainly short-term trends using a dynamic and evolving approach.

I hope that it will prove relevant and useful not only to readers of Energy in Europe but to an even wider audience including those involved in or concerned by energy policy-making and analysis within their various responsibilities, both within and beyond the European continent.

The review is presented here
in twelve parts
according to
the most strategic and important world regions.

The first part
provides an overview of world energy by region.

Part II looks at Western Europe and analyses in detail
the European Union,
including summary tables on energy prices,
and EFTA countries.

Part III analyses Central and Eastern Europe in some detail
by country, including Baltics countries.

Part IV provides information on the former USSR.
In this part there is an attempt to show details
for each Republic of the former USSR,
to the extent of availability of statistical data.

The other parts look at the other world regions
but in less detail.

Finally, the Short-Term Energy Outlook
for the European Union is reviewed for 1996 and 1997.

Some of the key findings are summarised
in the next pages.

WORLD

GROWTH IN WORLD ENERGY CONSUMPTION SLOWED DOWN FROM 1.9% P.A. IN THE 80'S TO 0.6% P.A. IN THE EARLY 90'S, BEFORE INCREASING SOMEWHAT IN 1994

• The slowdown of energy consumption growth was caused mainly by restructuring in the CIS and the Central and Eastern European countries. Energy consumption in this region sank by 7.7% p.a. from 1990 to 1994. The decline was particularly marked in 1994 with a fall of 9.4%;

• Energy consumption in OECD was up by 1.4% p.a. between 1990 and 1994. Growth was lowest in the European Union (0.3% p.a.) and highest in OECD Pacific (2.6%). In 1994, OECD energy consumption grew slightly faster reaching 1.8%;

• Growth in energy demand was concentrated mainly in the developing countries and most notably in Asia, where energy consumption increased by 4.8% p.a. since 1990. This growth was particularly significant in 1994 (5.2%);

THE FUEL MIX IS CHANGING BUT OIL REMAINS PREDOMINANT

• Oil remains the predominant energy source keeping its share of 38% since 1990;

• Natural gas is growing broadly in line with overall energy consumption. Strong growth in OECD countries (e.g. in power generation) is balanced by diminishing energy demand in countries in transition;

• Solid fuel demand has been stable since 1990, after strong growth in the previous two decades;

• The carbon free energy sources (nuclear and renewables) fared well in the early 90's with consumption being nearly 9% higher in 1994 compared to 1990. Renewables reached a share of about 10% in 1994;

• Electricity generation increased faster than gross energy consumption reflecting the growing share of electricity in final energy demand (16% in 1993 compared with 12% in 1980):

- Hydro production increased fastest with major development in Asia and Latin America;
- Nuclear capacity utilisation continued to improve;
- While the contribution of thermal generation increased slowly, there was a significant move towards greater use of natural gas;

OECD REGION PRODUCES MORE OF WORLD ENERGY

• In the early 90's, OECD production grew 1.4% p.a. while non-OECD production remained unchanged;

• In the non-OECD area there were substantial cutbacks of production in the countries in transition, which were almost compensated by production increases in developing countries;

• The OECD production gains were mainly in oil, gas and nuclear, while non-OECD countries increased predominantly solid fuel production;

• The OPEC share in oil production was 41% in 1994, recovering from its minimum of 29% in 1985, but it is still below its 1980 level of 44%;

OECD ENERGY TRADE WAS BROADLY STABLE, WHILE THERE WERE MAJOR SHIFTS IN OTHER REGIONS

• OECD dependency on energy imports increased by 1% in 1994 after a relative stability between 1990 and 1993;

• The European Union, by far the largest net importer, reduced its imports in 1993 and 1994. OECD-Pacific, the second largest importer, resumed growing in 1994 (7%) after a small decline and NAFTA imports, third largest, grew rapidly since 1990;

• Exports from CIS recovered from their 1992 low by rising in 3.5% 1993 and 7.5% in 1994; however, CIS exports in 1994 were 20% below their peak value in 1988;

• Middle East exports grew 10% between 1990 and 1994;

ENERGY INTENSITY CONTINUES TO DECLINE

• Energy intensity (energy consumption divided by GDP) continued to decrease by 1.2% p.a. between 1990 and 1994;

• While energy intensity is decreasing in the OECD and the developing countries, it is rising in the CIS and Central and Eastern Europe. There, economic restructuring has resulted in industrial production decreasing faster than energy consumption;

FUEL MIX CHANGES RESULTED IN LOWER CO2 EMISSIONS PER UNIT OF ENERGY CONSUMPTION

• While carbon intensity (CO2 emissions per unit of energy consumption) is decreasing both in OECD and the countries in transition, carbon intensity is rising in the rest of the world;

• Carbon intensity in the developing countries is rising due to the shift to commercial energy sources, mostly fossil fuels;

WORLD CO2 EMISSIONS REMAINED AT THE 1990 LEVEL UNTIL 1993

• There was no growth of CO2 emissions between 1990 and 1993. Economic growth of 1.4% p.a. was compensated by declining energy and carbon intensity of 0.9% p.a. and 0.6% p.a. respectively. There were different regional patterns in the 1990's:

- CO2 emissions fell sharply in the CIS and in Central and Eastern Europe due to transition and restructuring of economies. Emissions declined there by 8.6% p.a.;
- In the developing world, on the contrary, CO2 emissions have grown strongly reflecting economic growth and increasing carbon intensity;
- CO2 emissions in OECD grew comparatively slowly. They declined in the European Union due to energy intensity improvements and changes in the fuel mix, which is particularly marked by the restructuring of the highly carbon intensive ex-GDR;

• With strong economic growth in 1994, the indications are for rising CO2 emissions in 1994 despite a considerable decline in energy intensity;

EUROPEAN UNION

SINCE 1990, ONLY WEATHER HAS CAUSED NOTABLE CHANGES IN ENERGY CONSUMPTION

• Despite recession (GDP fell 0.4%) and warm weather gross inland consumption decreased only 0.2% in 1993, inducing a 0.2% increase in energy intensity;

• The 1994 recovery (GDP grew 2.8%) was balanced by very warm weather (13% above the EUR-12 average) and energy consumption increased only 0.5%. Correspondingly, energy intensity reduced 2.2%;

• Since 1985, energy consumption has grown 0.8% p.a. while economic activity has increased about 2% p.a.;

• Final energy demand increased slightly faster than gross inland demand during 1990 to 1994. The growth in final demand was mainly in the transport sector;

• Transport use increased 1.8% p.a. since 1990 after having grown 4.5% during the second half of the 80's. In 1994 the trend turned and demand reduced 2.2%;

• Industrial energy consumption decreased 2.5% p.a. between 1990 and 1993, but recovered in 1994 (2.2%). There were modest economic growth and deterioration of energy intensity in industry till 1993. In 1994, both economic growth and energy intensity improved;

• Short-term variations in tertiary-domestic sector energy consumption are believed to originate mainly from weather. However, energy demand grew 0.7% p.a. on average from 1990 to 1994 notwithstanding weather being similar in 1994 and 1990;

FUEL SWITCHING CONTINUED

• Natural gas demand increased 3.4% p.a. between 1990 and 1994;

• Oil demand grew just under 1% p.a. from 1990 to 1994. Transport demand was the main growth sector;

• Solid fuels lost market shares and gross consumption declined 5.6% p.a. since 1990;

• Electricity use continued to grow more rapidly than final energy demand, especially in 1994. The share of electricity in final demand increased to 19% in 1994. There were changes in the production of electricity, too:
- Hydro and wind production increased;
- Nuclear grew 2.4% p.a. since 1990, but compared with the 80's growth rates levelled out;
- In thermal generation gas use increased and solid fuel and oil use decreased;

• Renewables grew significantly between 1990 and 1994 (3% p.a.). In 1994, the share of renewables in gross energy consumption reached 5.4%;

DEPENDENCY ON EXTERNAL ENERGY SUPPLIES DECLINED

- Energy production grew faster than gross inland consumption both in 1993 and 1994. Import dependency fell significantly in 1994 (46%). Its peak value in 1992 was 50%;
- The domestic production of oil, gas, nuclear and renewables increased;
- Oil production grew strongly (23%) in 1994. The domestic production of total oil demand increased from 22% to 28% during 1992-1994;
- Domestic production of natural gas met 63% of natural gas demand in 1994. In 1992 the share was 62%;
- Solid fuel production, exposed to restructuring, sank about 12% in both 1993 and 1994, meeting 56% of solid fuels demand in 1994 (66% in 1992);
- Both nuclear and renewable fuel production increased;

ENERGY PRICES IN THE UNION WERE PARTICULARLY LOW

- In 1994, world oil real prices were on lowest level for twenty years;
- Nevertheless, prices for transport fuels increased slightly due to excise taxation. Gasoline prices rose faster than diesel prices;
- Energy prices for domestic consumers were declining, except for electricity, the prices of which were unchanged since 1990;
- In industry, oil prices increased due to the switch to better quality products and taxation. Gas and electricity prices decreased;

ENERGY AND CARBON INTENSITIES HAVE DECREASED SINCE 1990

- Energy intensity decreased 0.7% between 1990 and 1994. In the 80's it decreased at double this speed;
- Carbon intensity sank 1.2% p.a. since 1990, slower than in the 80's. While nuclear penetration was the main driving force in the 80's, it is the switch from solids to natural gas in the 90's;
- In 1994, energy intensity decreased notably, whereas carbon intensity decreased more slowly than before;

CO2 EMISSIONS DECLINED 0.9% P.A. FROM 1990 TO 1994

- CO2 emissions decreased 0.9% p.a. between 1990 and 1994, as economic growth was modest (1.0% p.a.) and energy and carbon intensities declined (0.7% p.a. and 1.2% p.a. respectively). Changes in energy and carbon intensive ex-GDR have supported this progress;
- CO2 emissions were reduced especially in power generation and non-transport final demand, where emissions were 6% and 10% lower in 1994 compared to 1990;
- Transport sector emissions rose 7% between 1990 and 1994;

SHORT-TERM ENERGY OUTLOOK FOR THE EUROPEAN UNION

- Energy consumption in the European Union (EUR-12) will grow in the near future as ongoing economic growth and moderate energy prices are expected. After having increased 2.4% in 1995 gross energy consumption is expected to grow further 2.3% in 1996 and 0.2% in 1997;
- Gas not only covers all growth in energy demand, but it also sets other fuels aside;
- Annual CO2 emissions are 0.7% higher in 1997 compared to 1994, but 3.1% lower than 1990 (EUR-12 including ex-GDR). The fluctuations in annual CO2 emissions within the forecasting period are caused mainly by weather changes. Man-made decisions about fuel mix are abating emissions in short-term, offsetting the effect of GDP growth;

The World is divided into the following regions:

EUROPEAN UNION

Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden and the United Kingdom;

EFTA

Iceland, Norway and Switzerland;

CENTRAL AND EASTERN EUROPE

Albania, Bulgaria, Czech Republic, Hungary, Poland, Romania, Slovakia and former Yugoslavia;

BALTIC'S

Estonia, Latvia and Lithuania;

FORMER USSR

Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan;

NAFTA

Canada, Mexico and the United States of America;

OECD PACIFIC

Australia, Japan and New Zealand;

MEDITERRANEAN

Cyprus, Gibraltar, Malta and Turkey;

AFRICA

North Africa (Algeria, Egypt, Libya, Morocco and Tunisia) and all other African countries not included elsewhere;

MIDDLE EAST

Bahrain, Israel, Iran, Iraq, Jordan, Lebanon, Kuwait, Oman, Qatar, Saudi Arabia, Syria, United Arab Emirates and Yemen;

ASIA

China, Newly Industrialising Economies (Hong Kong, Singapore, South Korea and Taiwan) and all other Asian countries not included elsewhere and the Pacific islands;

LATIN AMERICA

Brazil, Venezuela and all other Central and South American countries.

Data cover the period from 1980 to 1994 for the OECD Countries and up to 1993 for all non-OECD Countries.
Data for 1994 in non-OECD Countries are shown wherever provisional figures were available.
The STEO covers the period from the first Quarter 1996 to the fourth Quarter of 1997.

The list of data sources is:

• All European Union and its Member States energy data were taken from the Statistical Office of the European Commission (SOEC). Data on electricity generating capacities were provided by ESAP (Belgium); the monthly data of the former German Democratic Republic, included in our Short-Term Energy Outlook of the European Union, was constructed with the help of Dr. J. Hesselbach of the IFE Leipzig GmbH.

We call the reader's attention to the fact that data for the STEO are based on monthly statistics while all other data are based on annual balance sheets;
The difference between monthly and annual series may sometimes be significant;

• Energy data for all other OECD Countries came from the International Energy Agency (IEA) energy balances; the respective macroeconomic and population data were taken from OECD, UN, World Bank and IMF statistics; data on electricity generating capacities were provided by ESAP (Belgium);

• All energy data for non-OECD Countries, except Central and Eastern Europe and the former USSR, and Latin America came from the IEA energy balances; 1994 data have been extrapolated from BP statistics; the respective macroeconomic and population data were taken from both OECD, UN, World Bank and IMF statistics; wherever available, data on electricity generating capacities were provided by ESAP (Belgium);

• All energy data for the Central and Eastern European Countries and the former USSR came from the IEA energy balances; the respective macroeconomic and population data were taken from the UN, World Bank, IMF and PlanEcon statistics; wherever available, data on electricity generating capacities were provided by ESAP (Belgium);

• All data for Latin American Countries came from IEA energy balances and were checked against the respective energy balances provided by OLADE; the respective macroeconomic and population and electricity generating capacities data were taken from the OLADE statistics, completed with OECD, UN, World Bank and IMF statistics;

• Prices of oil products came from DGXVII statistics; average prices for other fuels (solids, natural gas and electricity) were taken from the IEA "Energy Price Statistics".

Difficulties in collecting data for non-OECD Countries lead us to advise a degree of caution regarding the data quality in these cases. Thus, comparisons between series of absolute values should be regarded as purely indicative.

A few words on methodology and definitions are necessary.

GENERAL

• **Primary hydro-electricity** production is considered in terms of net calorific value (1 GWh = 86 toe) and **primary nuclear** production is calculated as fuel equivalent to produce the same amount of electricity in a power station with a thermal efficiency of 33%.

• **Biomass** data for OECD Countries (excluding European Union Member States) correspond to what the IEA shows in its energy balances under "Other Solid Fuels". Data for all non-OECD Countries correspond to IEA and UN data under the designation of "Vegetal Fuels". In the case of the European Union see below.

• **Primary heat** (geothermal energy) is considered as being exclusively used for power generation. **Heat** shown in the final demand section is exclusively derived from other fuels (power generation and district heating). In the case of the European Union see below.

• In the **World Summary Energy Balance**, **gross energy consumption** corresponds to the total primary energy consumed including quantities delivered to marine bunkers. **Total final energy consumption** (TFEC) does not include any quantities used for non-energy purposes.

• **Energy intensity** is defined as the ratio of energy consumption to an economic activity indicator. In the case of total energy intensity, the ratio is between the Gross Inland Consumption and GDP.

• **CO2 emissions** are given only on an indicative basis and were calculated using common emission factors across all countries. At world level, CO2 emissions resulting from bunker fuels were included in the tables similarly to those resulting from fuels sold to airline transport.

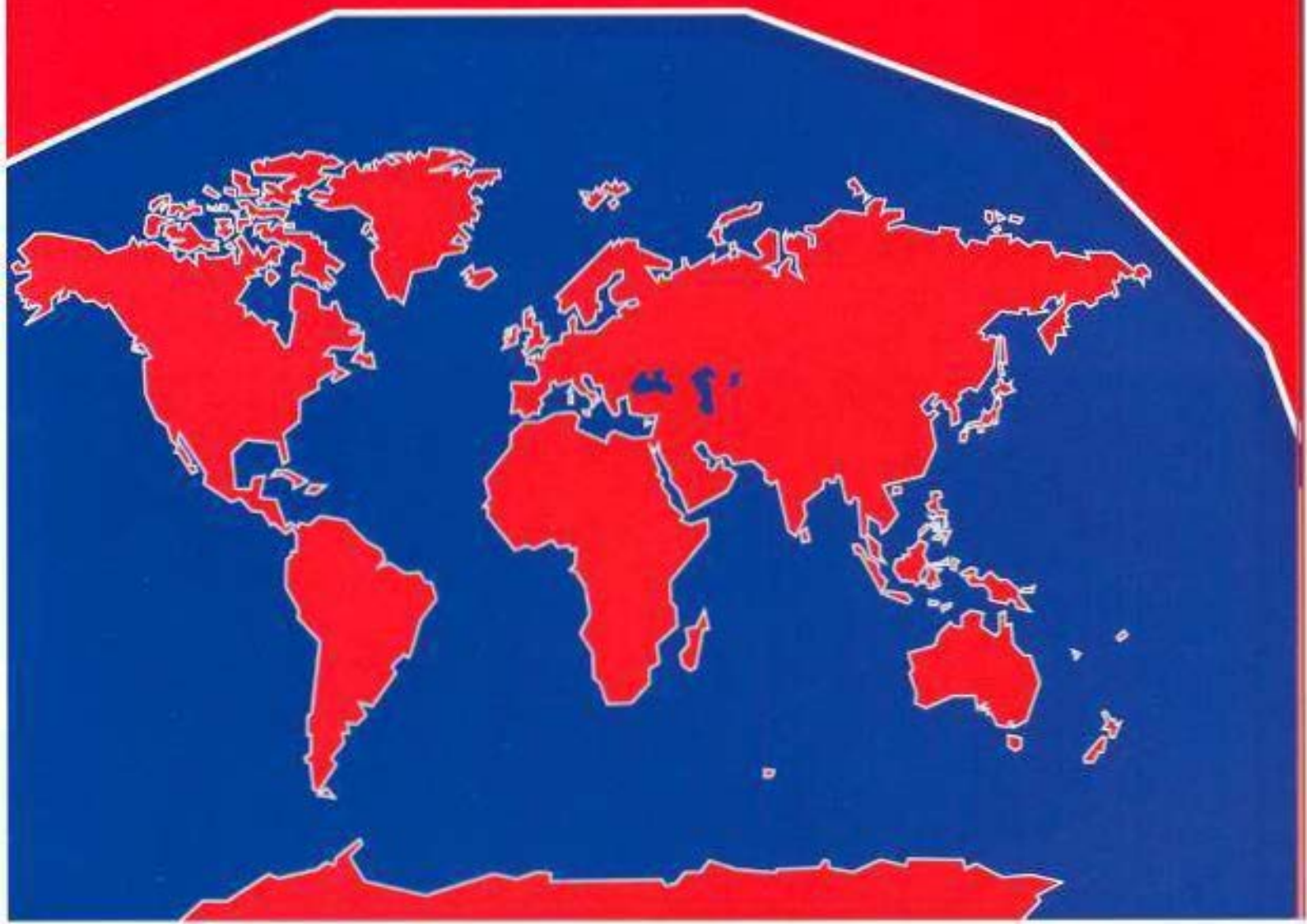
EUROPEAN UNION

• The SOEC energy balance now available includes additional information on **renewable energy** sources (biomass, solar, wind and geothermal). These data related to renewable energy sources are available since 1985. This limits the analysis for Member States to the period 1985-1994 to ensure consistency in the time series.

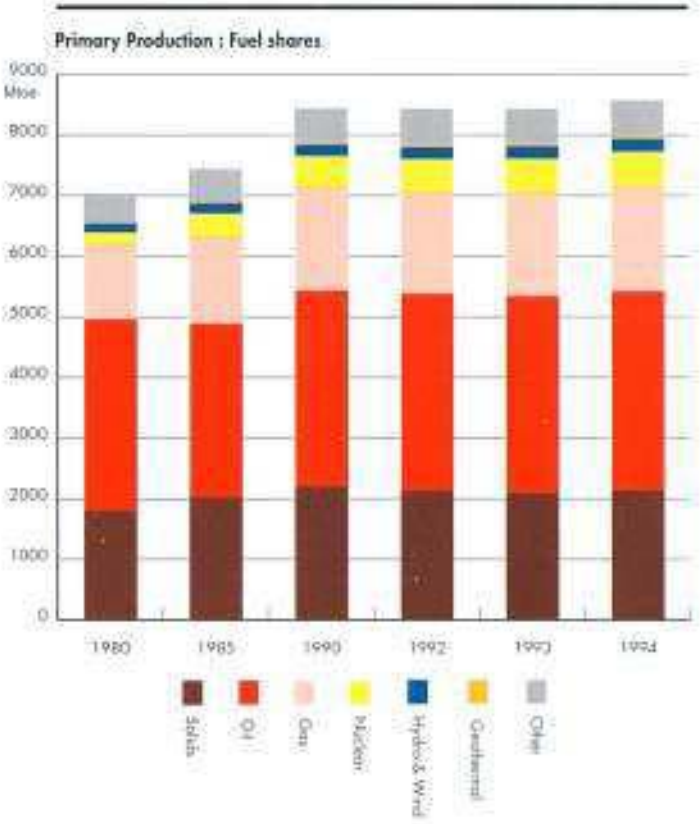
• Data for **Germany** include both the former West Germany and the former German Democratic Republic.

More detailed definitions are shown in SOEC and IEA publications.

PART I WORLD



Total energy production in the world as a whole (equivalent to gross energy consumption aside from some stock variations and statistical errors) increased from 1980 to 1994 by about 1.4% per year, but by only 0.4% since 1990. This recent trend results from the impressive reduction of production in CIS (-452 Mtoe or a reduction of 28% between 1990 and 1994) and CEEC (-27 Mtoe or a reduction by 11%). It was compensated by increases in all other regions of the world, mainly in Asia (+175 Mtoe or +13%), the Middle East (+137 Mtoe or +14%), in NAFTA countries (+86 Mtoe or +4%) and in EFTA countries (+51 Mtoe or +39%). In 1994, oil was still the most important fuel with 38% of total (45% in 1980) but its production has grown slower than total energy (0.3% per year in the period). The second most important fuel is solids which kept a constant share of the total of about one quarter. Natural gas ranks third in meeting world needs with 20% in 1994 (18% in 1980) and it has seen a steady growth of 2.4% per year in the period. Renewable energy sources (hydro, geothermal, biomass and wind) comes fourth in satisfying world energy demand with almost 10% in 1994 (9% in 1980) and has had an annual average growth rate of almost 2%. Finally, nuclear energy grew the fastest in the period, mainly up to 1986 (16% per year); its rate of growth slowed down between 1986 and 1990 to 6% per year and only 2.8% per year between 1990 and 1994.



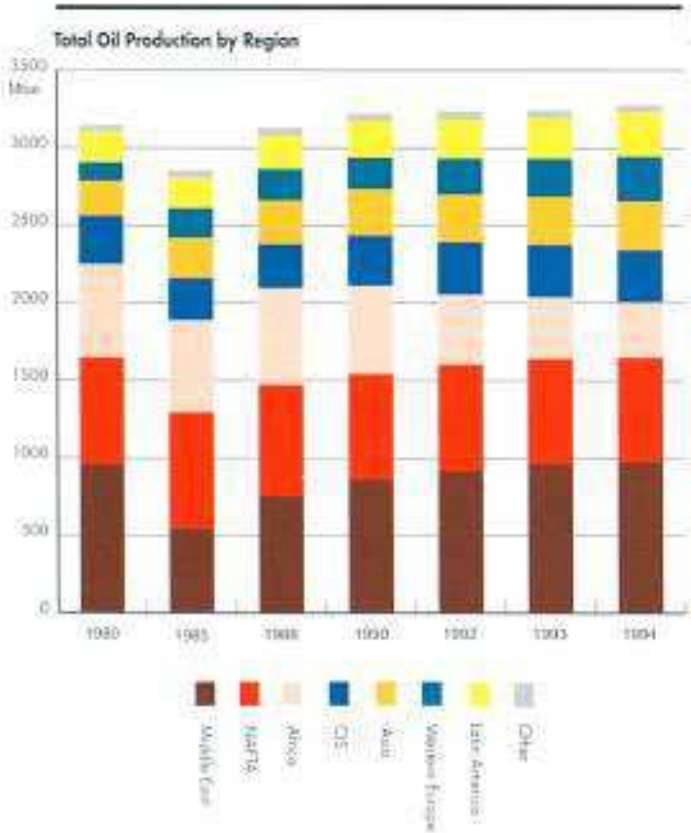
TOTAL PRIMAY ENERGY PRODUCTION : TOTAL BY REGION

Mtoe	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
World	7030.9	7441.3	8185.8	8444.8	8436.0	8442.8	8578.3	1.1%	2.6%	-0.1%	0.1%	1.6%
Western Europe	668.9	818.6	846.6	841.5	859.8	874.7	909.3	4.1%	0.6%	1.1%	1.7%	4.0%
European Union	605.3	735.1	741.2	710.4	701.7	708.8	726.9	4.0%	-0.7%	-0.6%	1.0%	2.5%
EFTA	63.6	83.4	105.4	131.2	158.1	165.9	182.5	5.6%	9.5%	9.8%	4.9%	10.0%
Central and Eastern Europe	268.1	285.0	286.2	235.4	213.6	210.5	208.0	1.2%	-3.8%	-4.7%	-1.5%	-1.2%
CIS (1)	1360.1	1514.9	1678.8	1623.1	1383.4	1278.5	1170.8	2.2%	1.4%	-7.7%	-7.6%	-8.4%
NAFTA	1900.1	1996.4	2071.4	2112.0	2129.4	2112.7	2197.7	1.0%	1.1%	0.4%	-0.8%	4.0%
OECD Pacific	134.9	196.4	212.9	238.4	258.9	272.3	276.1	7.8%	4.0%	4.2%	5.2%	1.4%
Mediterranean	17.2	21.7	24.5	26.4	26.9	26.8	26.8	4.7%	4.0%	1.1%	-0.5%	0.0%
Africa	492.7	526.2	563.8	620.8	642.2	649.4	657.8	1.3%	3.4%	1.7%	1.1%	1.3%
Middle East	999.4	605.3	842.3	954.8	1018.6	1071.8	1092.1	-9.5%	9.5%	3.3%	5.2%	1.9%
Asia	862.6	1108.8	1255.2	1361.6	1443.6	1474.4	1537.3	5.1%	4.2%	3.0%	2.1%	4.3%
Latin America	326.7	368.1	404.0	430.7	459.6	471.8	502.5	2.4%	3.2%	3.3%	2.6%	6.5%
of which (%)												
European Union	8.6	9.9	9.1	8.4	8.3	8.4	8.5	2.8%	-3.2%	-0.6%	0.9%	0.9%
OECD	38.5	40.5	38.2	37.8	38.5	38.6	39.4	1.0%	-1.4%	0.9%	0.3%	2.1%

(1) Including Baltic countries for statistical reasons

Between 1980 and 1994, OECD and non-OECD areas had approximately the same growth in total energy production (1.4% per year), but evolution differed slightly in time by regions. The bulk of increase in non-OCDE countries occurred between 1986 and 1990 with an average annual growth of 3.5% mainly in the Middle East (+9.5% per year) which recovered in 1990 to about the 1980s level, and in Asia (+4.5% per year). During the same time, OECD grew only by about 1.2% per year with a peak of 9.5% in EFTA countries. Since 1990, the production had a drop of about 1% compared to an increase of 6.0% in the OECD. Apart from developments in the former USSR and in Central and Eastern Europe, production continued to increase mainly in Asia (175 Mtoe or +3.0% per year), in the Middle East (137 Mtoe or +3.4% per year) and in Latin America (+71 Mtoe or +3.9% per year).

In 1994, energy production continued to fall in Central and Eastern Europe and in CIS, with an acceleration of the trend in the CIS (-8.4%). On the other hand, production in the Middle East increased slowly by almost 2%, Asia by 4.3% and Latin America by 6.5%. The European Union in 1994 confirmed an upward trend (+2.5%) in its domestic production engaged in 1993. But the European Union, along with Central and Eastern Europe and the former USSR, share the distinction of being the only world regions where production in 1994 was lower than in 1985. Within the non-OECD area the main energy producers are: Asia and the former USSR each accounting for 18% of total world production, and the Middle East with 13%.



Oil remains the dominant fuel in world production and consumption, although as stated above it has lost its share in total energy production, with the 1994 level only 4% higher than in 1980. OPEC as a whole remains the major oil producer, but its weight in total world oil production fell from 44% in 1980 (54% in 1973) to 41% in 1994, with a minimum share of 29% in 1985. Since 1990, the share of Western Europe has sharply increased (from 6% in 1990 to 9% in 1994) in line with the increasing production from the North Sea. In fact, these last four years production losses in CIS and Eastern countries have been compensated only by the Middle East (112 Mtoe), Western Europe (87 Mtoe) and Latin America (50 Mtoe), the other regions being quite stable, in particular the NAFTA region, the second world producer.

TOTAL SOLID PRODUCTION : TOTAL BY REGION

Mtoe	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
World	1812.3	2029.2	2171.7	2210.3	2145.5	2097.1	2147.5	2.3%	1.7%	-1.5%	-2.3%	2.4%
Western Europe	257.8	240.3	231.1	214.9	176.2	155.7	136.7	-33.2%	-2.2%	-9.4%	-11.6%	-12.2%
European Union	257.6	239.9	230.9	214.7	176.0	155.5	136.5	-1.4%	-2.2%	-9.5%	-11.6%	-12.2%
EFTA	0.2	0.4	0.2	0.2	0.2	0.2	0.2	12.0%	-10.5%	8.9%	-25.3%	12.3%
Central and Eastern Europe	192.2	202.6	203.9	167.3	153.6	150.7	148.9	1.1%	-3.8%	-4.2%	-1.9%	-1.2%
CIS [1]	338.7	312.5	331.8	300.5	266.9	239.7	213.5	-1.6%	-0.8%	-5.8%	-10.2%	-10.9%
NAFTA	470.2	502.5	537.1	580.2	556.2	528.5	579.2	1.3%	2.9%	-2.1%	-5.0%	9.6%
OECD Pacific	64.6	92.1	99.2	112.3	123.3	124.7	125.2	7.3%	4.0%	4.8%	1.1%	0.4%
Mediterranean	6.2	10.7	11.3	12.4	12.1	11.7	12.1	11.6%	3.1%	-1.2%	-3.6%	3.6%
Africa	72.1	105.1	111.1	115.1	109.4	113.8	122.1	7.8%	1.8%	-2.5%	4.0%	7.3%
Middle East	0.6	0.8	0.8	0.8	0.9	0.9	0.9	6.8%	0.7%	7.5%	1.5%	-3.9%
Asia	403.7	552.3	629.8	688.5	726.2	751.5	787.9	6.5%	4.5%	2.7%	3.5%	4.8%
Latin America	6.2	10.5	15.5	18.4	20.6	19.8	21.1	11.1%	11.8%	5.9%	-4.0%	6.4%
of which [%]												
European Union	14.2	11.8	10.6	9.7	8.2	7.4	6.4	-3.6%	-3.9%	-8.1%	-9.6%	-14.3%
OECD	43.7	41.1	39.9	41.0	39.9	38.6	39.2	-1.2%	0.0%	-1.4%	-3.3%	1.5%

TOTAL OIL PRODUCTION : TOTAL BY REGION

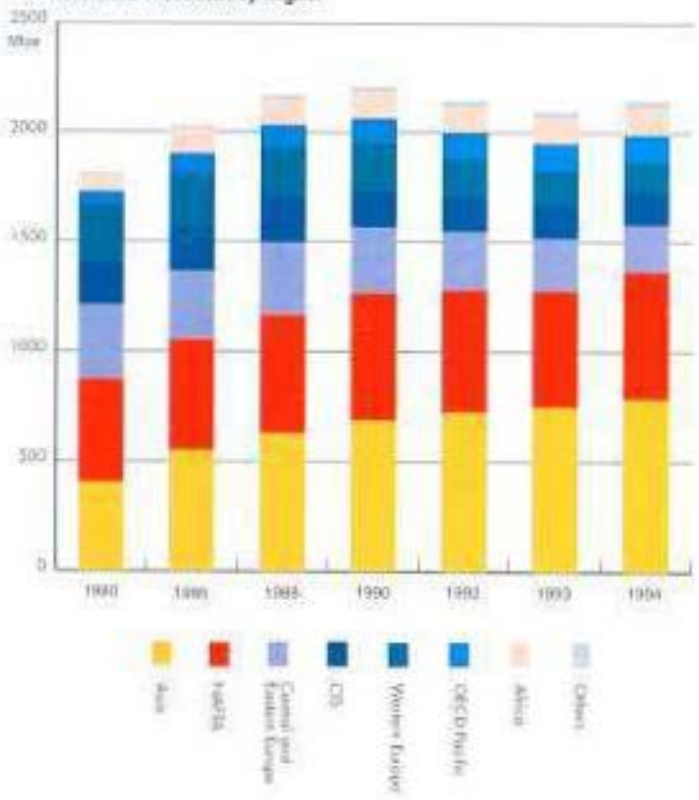
Mtoe	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
World	3148.3	2858.9	3129.6	3223.1	3236.1	3241.8	3276.5	-1.9%	2.4%	0.2%	0.2%	1.1%
Western Europe	119.4	190.5	202.6	201.8	231.4	244.9	288.6	9.8%	1.2%	7.1%	5.8%	17.9%
European Union	94.4	151.0	144.7	117.5	121.6	127.3	156.6	9.8%	-4.9%	1.8%	4.7%	23.0%
EFTA	25.0	39.5	57.9	84.4	109.8	117.6	132.0	9.6%	16.4%	14.1%	7.1%	12.3%
Central and Eastern Europe	21.0	19.1	16.8	14.6	13.2	12.9	12.6	-1.8%	-5.3%	-4.8%	-2.0%	-2.4%
CIS	606.2	598.2	627.4	573.5	456.0	402.3	359.8	-0.3%	-0.8%	-10.8%	-11.8%	-10.6%
NAFTA	683.5	743.7	710.4	670.4	678.7	669.7	665.4	1.7%	-2.1%	0.6%	-1.3%	0.6%
OECD Pacific	22.2	29.7	30.5	31.1	30.8	30.6	28.8	6.0%	0.9%	-0.4%	-0.8%	-5.8%
Mediterranean	2.4	2.2	2.6	3.8	4.4	4.0	3.8	-2.0%	12.0%	7.3%	-9.0%	-5.0%
Africa	310.8	270.4	282.6	323.4	337.2	335.3	334.8	-2.7%	3.6%	2.1%	-0.6%	-0.1%
Middle East	960.9	547.5	758.0	867.6	920.6	966.7	980.1	-10.6%	9.6%	3.0%	5.0%	1.4%
Asia	226.8	261.3	282.7	300.8	308.2	311.5	317.2	2.9%	2.8%	1.2%	1.1%	1.9%
Latin America	195.2	196.2	215.8	236.2	255.7	264.0	285.3	0.1%	3.8%	4.0%	3.2%	8.1%
of which (%)												
European Union	3.0	5.3	4.6	3.6	3.8	3.9	4.8	12.0%	-7.2%	1.6%	4.5%	21.7%
OECD	26.2	33.7	30.2	28.0	29.1	29.2	30.0	5.2%	-3.6%	1.9%	0.3%	2.9%

TOTAL GAS PRODUCTION : TOTAL BY REGION

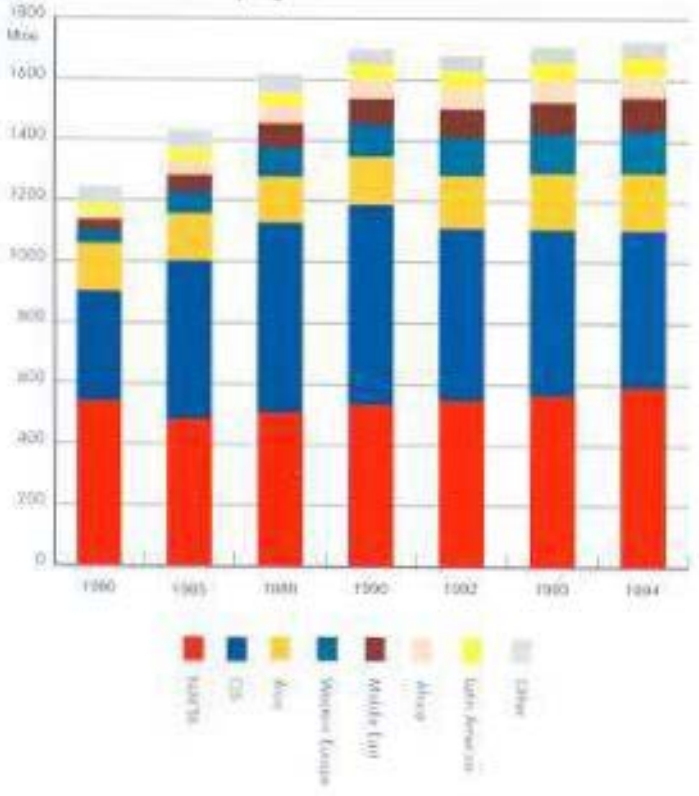
Mtoe	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
World	1244.7	1432.0	1616.3	1702.0	1678.8	1708.6	1727.3	2.8%	3.5%	-0.7%	1.8%	1.1%
Western Europe	156.1	155.1	150.3	156.8	172.5	183.0	186.7	-0.1%	0.2%	4.9%	6.1%	2.0%
European Union	133.3	131.7	124.5	132.7	146.7	157.9	159.6	-0.2%	0.2%	5.2%	7.6%	1.1%
EFTA	22.8	23.4	25.9	24.1	25.8	25.1	27.1	0.6%	0.6%	3.3%	-2.5%	8.1%
Central and Eastern Europe	43.5	45.1	41.8	30.9	24.8	25.0	23.7	0.7%	-7.3%	-10.4%	0.9%	-5.2%
CIS	359.6	520.1	622.7	656.3	564.9	546.0	516.0	7.7%	4.8%	-7.2%	-3.4%	-5.5%
NAFTA	542.1	482.6	506.0	532.6	546.4	563.2	590.8	-2.3%	2.0%	1.3%	3.1%	4.9%
OECD Pacific	10.3	16.2	18.8	22.0	25.8	27.2	28.5	9.5%	7.1%	6.3%	5.3%	4.8%
Mediterranean	0.0	0.1	0.1	0.2	0.2	0.2	0.2	-	25.9%	-3.4%	1.0%	0.5%
Africa	20.4	42.5	52.0	60.0	68.2	72.2	70.5	15.8%	7.1%	6.6%	5.8%	-2.4%
Middle East	36.2	54.9	80.9	83.9	94.1	101.1	107.6	8.7%	8.8%	5.9%	7.4%	6.5%
Asia	44.0	72.2	94.9	107.5	125.8	132.2	140.7	10.4%	8.3%	8.2%	5.1%	6.4%
Latin America	32.4	43.2	48.7	50.8	56.2	58.6	62.6	5.9%	3.3%	5.1%	4.3%	6.9%
of which (%)												
European Union	10.7	9.2	7.7	7.8	8.7	9.2	9.2	-3.0%	-3.3%	5.9%	5.7%	0.0%
OECD	56.9	45.7	41.8	41.9	44.4	45.3	46.7	-4.3%	-1.7%	3.0%	2.0%	3.1%

[1] Including Baltic countries for statistical reason

Total Solid Production by Region



Total Gas Production by Region



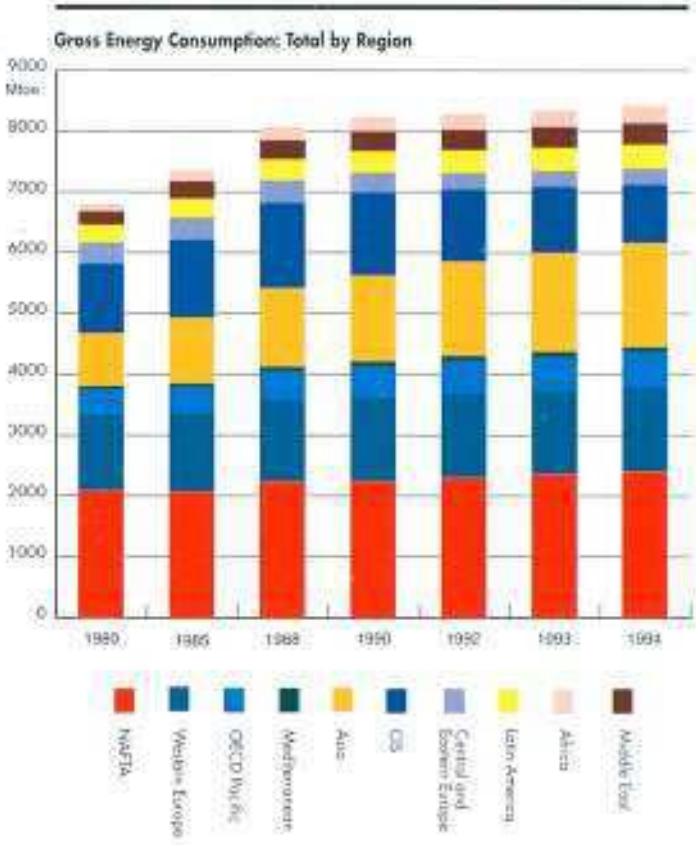
The share of **solids** remained quite stable since 1980 at about 25% of the total with a peak at 27% in 1985. The largest producer in 1994 remained Asia (37% of the total compared to 22% in 1980), followed by NAFTA (27% in 1994, the same level as in 1980). Increased production in these two regions compensated slowdown in CIS and Eastern countries in relation to economic and political reforms and shutdown in the European Union as a consequence of the restructuration of the coal sector. In 1994, the two biggest producers were China (600 Mtoe) and Unites States (536 Mtoe), followed by India, Australia and Russia (about 120 to 125 Mtoe for each of them).

Amongst the fossil fuels, **natural gas** production showed the major increase between 1980 and 1990 with a total gain of 38% but since 1990 the production remained quite stable. The share of natural gas grew from 17% in 1980 to 20% in 1990, remaining at this level since then. The two major contributors during the period were the CIS (360 Mtoe in 1980 and 516 Mtoe in 1994 with a peak of 656 Mtoe in 1990) and the NAFTA region (542 Mtoe in 1980 to be compared to 591 Mtoe in 1994). Their share in total gas production slowed down from 72% in 1980 to 64% in 1994. Production is increasing most rapid in Asia with an annual growth of almost 9% per year on average since 1980. All the other regions are also increasing their production but at more moderate rates.

Amongst the **non-fossil fuels**, it must be noted:

- contribution of nuclear increased from 2.6% in 1980 to 6.7% in 1994, with capacities mainly located in OECD
- share of hydro was quite stable around 2.3% of the total with major development in non-OECD countries where the potential for extension is mainly located for geographic reasons
- biomass also presented a stable contribution (around 7%) with production increasing at the same rate both in the OECD and non-OECD regions.

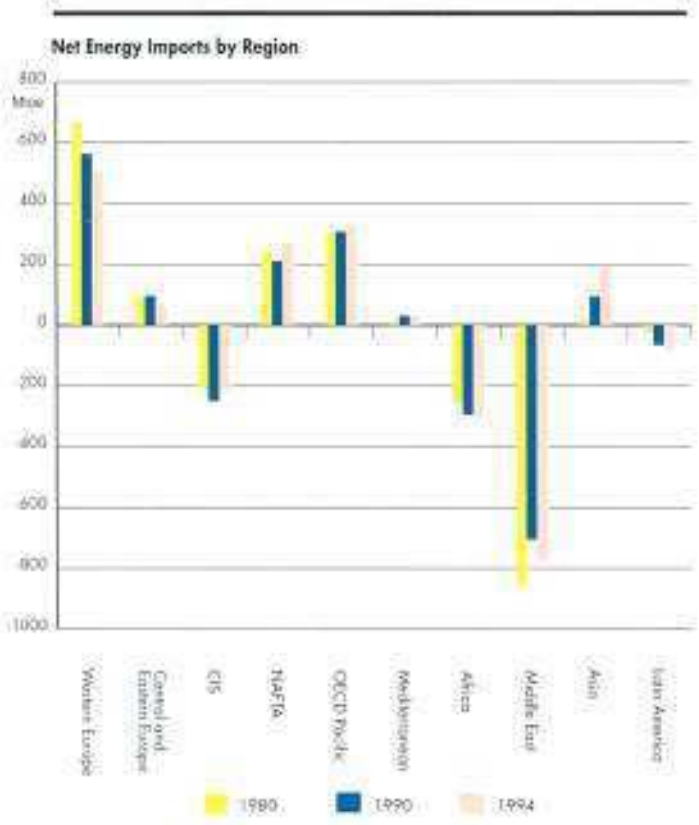
Looking at total **gross energy consumption** by region, the developments in the period are characterised by a faster growth in the non-OECD area during the 80s (2.9% per year against amongst 1% per year in the OECD). However, since 1990, while the OECD area continued to increase its energy needs by 1.4% per year on average, the non-OECD world had a slight drop in demand. This drop in the non-OECD demand resulted from the significant decreases in Central and Eastern Europe and the former USSR that was not totally compensated by the buoyant demand in the Middle East (+6.5% per year on average), in Asia (+4.8%) and in Latin America (+2.7%). The OECD Pacific region was also presenting sustained growth (+2.6% per year on average, but +4.5% in 1994) mainly justified by an increase in energy intensity of the Japanese economy.



TOTAL GROSS ENERGY CONSUMPTION : TOTAL BY REGION

Mtoe	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
World (1)	6927.4	7465.5	8188.8	8356.8	8431.6	8491.8	8570.0	1.5%	2.3%	0.4%	0.7%	0.9%
Bunkers	109.0	95.3	104.7	118.1	130.0	127.0	126.6	-2.7%	4.4%	5.0%	-2.3%	0.3%
Western Europe	1253.0	1285.0	1339.0	1369.9	1383.0	1381.3	1388.5	0.5%	1.3%	0.5%	-0.1%	0.5%
European Union	1211.9	1239.9	1292.7	1321.3	1333.1	1330.8	1338.0	0.5%	1.3%	0.4%	-0.2%	0.5%
EFTA	41.1	45.1	46.3	48.6	49.9	50.5	50.5	1.9%	1.5%	1.3%	1.3%	0.0%
Central and Eastern Europe	359.0	372.5	380.2	333.0	283.7	277.2	274.2	0.7%	-2.2%	-7.7%	-2.3%	-1.1%
CIS (2)	1134.2	1274.4	1389.2	1356.6	1170.4	1073.3	949.5	2.4%	1.3%	-7.1%	-8.3%	-11.5%
NAFTA	2091.6	2075.8	2247.1	2250.1	2305.8	2362.6	2408.5	-0.2%	1.6%	1.2%	2.5%	1.9%
OECD Pacific	426.7	447.4	489.8	534.1	555.8	566.9	592.2	0.9%	3.6%	2.0%	2.0%	4.5%
Mediterranean	32.7	40.4	48.9	55.5	58.2	61.6	60.4	4.3%	6.6%	2.4%	5.7%	-1.9%
Africa	220.1	281.1	310.7	323.8	333.9	340.2	350.7	5.0%	2.9%	1.6%	1.9%	3.1%
Middle East	133.6	190.7	228.3	237.2	271.6	289.4	304.6	7.4%	4.5%	7.0%	6.5%	5.3%
Asia	875.3	1085.6	1300.1	1423.0	1562.1	1633.6	1719.1	4.4%	5.6%	4.8%	4.6%	5.2%
Latin America	292.2	317.3	350.8	355.5	377.1	378.7	395.8	1.7%	2.3%	3.0%	0.4%	4.5%
of which (%)												
European Union	17.5	16.6	15.8	15.8	15.8	15.7	15.6	-1.0%	-1.0%	0.0%	-0.9%	-0.4%
OECD	54.4	51.0	49.8	49.7	50.3	50.8	51.2	-1.3%	-0.5%	0.6%	0.8%	0.9%

(1) Differences from total energy production are due to stock variations and statistical differences.
(2) Including Baltic countries for statistical reasons.



The world **energy trade** (net energy imports) shows that the European Union is by far the largest net importer with a steady annual growth of 3.7% per year between 1985 and 1992. But in 1993 net imports declined by 4.1% and by 2.8% in 1994. OECD Pacific is the second ranking with a relatively stable level since 1980, except for the drop in mid-1980s and the sharp increase of 7.3% in 1994. The NAFTA region is also an important importer. The evolution of its energy imports follow a similar profile to that of the European Union, although with a faster growth rate between 1985 and 1992 (+16.6% per year) but taking into account that the 1985 level represented an historical minimum. In 1993 and 1994, net imports continued to grow at an accelerated rate in the NAFTA region (25.1% an 10.1% respectively). The net exporters remained: first the Middle East (776 Mtoe in 1994), second Africa (306 Mtoe) third CIS (219 Mtoe) and fourth EFTA (131 Mtoe), all four mainly export hydrocarbons. If OPEC continued to dominate the oil market, it must be stressed that Russia accounted for 40% of the exchange of natural gas in 1994.

NET ENERGY IMPORTS : TOTAL BY REGION

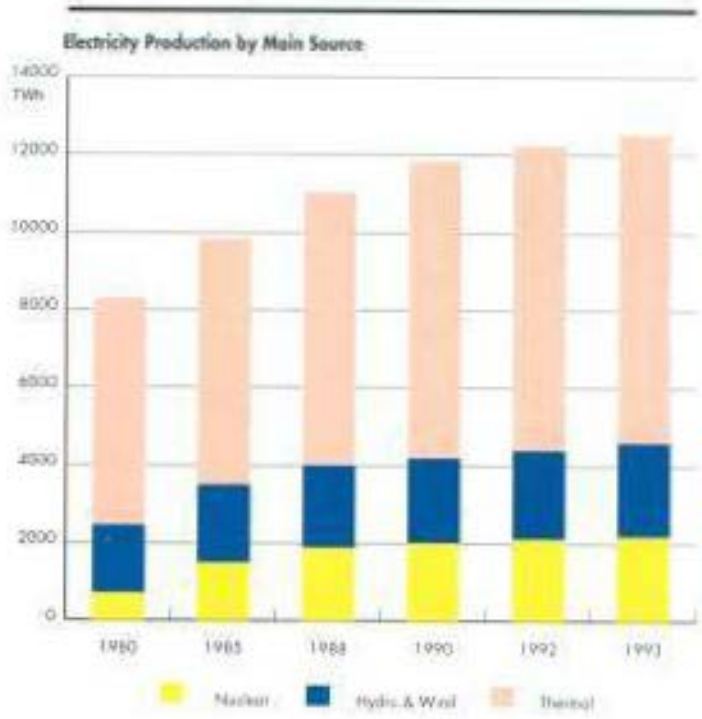
Mtoe	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
Western Europe	667.0	488.6	520.4	563.3	573.1	537.5	502.6	-6.0%	2.9%	0.9%	-6.2%	-6.5%
European Union	688.4	527.1	579.2	643.7	680.4	652.4	634.0	-5.2%	4.1%	2.8%	-4.1%	-2.8%
EFTA	-21.4	-38.5	-58.9	-80.3	-107.3	-114.8	-131.4	12.5%	15.9%	15.6%	7.0%	14.4%
Central and Eastern Europe	91.8	87.6	98.3	96.4	70.6	65.9	67.1	-0.9%	1.9%	-14.4%	-6.6%	1.7%
CIS (1)	-212.2	-219.2	-274.6	-249.5	-196.7	-203.6	-218.9	0.6%	2.6%	-11.2%	3.5%	7.5%
NAFTA	243.6	67.5	182.5	211.4	198.0	247.8	273.6	-22.6%	25.6%	-3.2%	25.1%	10.4%
OECD Pacific	306.1	257.6	273.5	307.5	303.2	302.1	324.0	-3.4%	3.6%	-0.7%	-0.4%	7.3%
Mediterranean	15.7	18.9	26.3	30.7	31.7	36.3	35.8	3.7%	10.2%	1.6%	14.5%	-1.2%
Africa	-257.9	-237.9	-244.3	-294.1	-309.8	-307.7	-306.1	-1.6%	4.3%	2.6%	-0.7%	-0.5%
Middle East	-854.3	-401.6	-600.0	-705.1	-736.7	-768.2	-775.9	-14.0%	11.9%	2.2%	4.3%	1.0%
Asia	21.0	2.8	57.6	94.2	150.8	200.8	193.4	-33.4%	102.7%	26.6%	33.2%	-3.7%
Latin America	-25.3	-41.3	-45.5	-65.3	-75.1	-81.0	-86.4	10.3%	9.6%	7.2%	8.0%	6.7%
of which												
OECD	1232.5	832.6	1002.7	1112.9	1106.0	1123.7	1136.1	-7.5%	6.0%	-0.3%	1.6%	1.1%

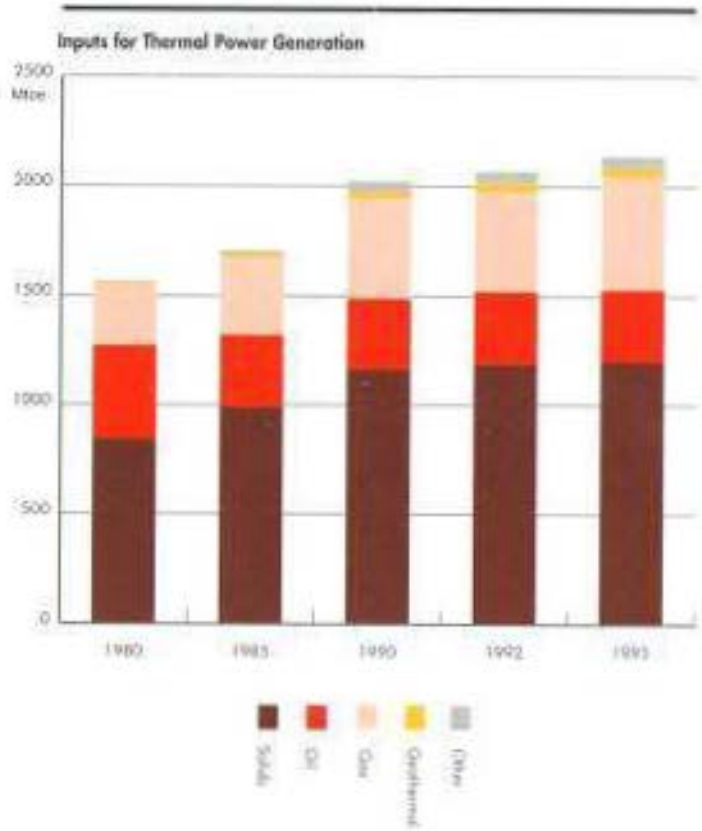
(1) Including Baltic countries for statistical reasons

Electricity generation has shown a world-wide sustained increase of 3.2% per year between 1980 and 1993. Thermal production continues to dominate total electricity generation, although its share decreased from 70% in 1980 to 63% in 1993. Nuclear power showed a strong growth until 1990 of 11% per year on average. After 1990, the growth in nuclear output has slowed down considerably due to lack of investment, mainly in Western Europe and North America. Nuclear contribution passed from 9% in 1980 to 17% in 1994. Hydro power, which up to 1990 grew by almost 2.3% per year, reinforced its growth since 1990 at 3.1 per year on average with a peak of 5.7% in 1993.

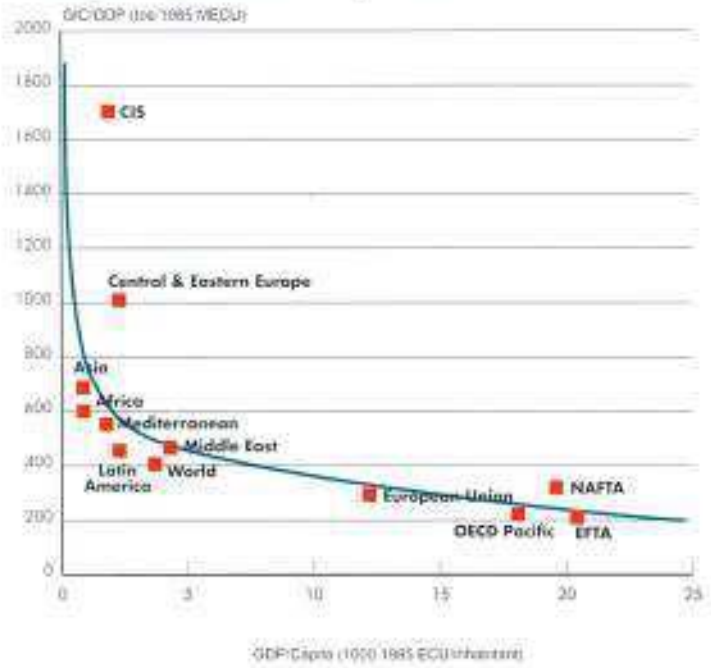
The **installed capacity** reached 2908 GWe in 1994 compared with 1994 GWe in 1980, or an annual increase of about 3% per year since 1980. Nuclear capacity developed during the 80s (188 GWe or 55% of total nuclear capacity in 1994) and increased more smoothly since then. Hydro capacity continued its expansion by around 3% per year on average between 1980 and 1993 but with a continuous slowdown in growth. Thermal units, which represent 54% of additional capacity since 1980, grew by about 2.4% per year over the same period. In 1993, thermal represented 64% of total installed capacity (69% in 1980), hydro 24% (23% in 1980) and nuclear 12% (7% in 1980).

Inputs for electricity generation have been increasingly dominated by solid fuels. While these represented 54% of total inputs in 1980, they were 56% in 1993. Oil use for the generation of electricity has seen a steadily decreasing trend during the 80s (-2.7% per year) since the 1980 peak, but was quite stable between 1990 and 1993. The utilisation of gas as an input for power generation underwent continuous growth in the period (5% per year) with a large jump by about 13% in 1993. From 1985, gas became more important than oil and is now about 60% higher. In 1993, the shares of the different fuel inputs were: solids (56%); gas (24%); oil (15%); and renewable sources (4%).





Energy Intensity and Economic Development in 1994



Two of the **main energy indicators** are energy consumption per capita and energy intensity. However, a word of caution is necessary. While consumption per capita is to a large extent related to wealth and living standards, the comparison between different regions can be misleading. In fact, the same ratio in two regions does not necessarily imply the same life style or stage of economic development. Different economic structures combined with diverse types of technology being applied, especially in terms of energy-using equipment, which typically result in different levels of energy intensity, even if the consumption per capita is the same. This applies especially to the countries from the so called Centrally Planned Economies. Comparing the energy intensity with the **GDP per capita** for each region in 1994, it appears that those countries constitute a group with relatively low income and high energy intensity, and separate from all other world regions. Most of the economic development of these countries was based on energy-intensive industries with low-efficiency energy equipment in all other sectors. Latin America, on the other hand, has an intensity about the same as in the NAFTA region, but the income is significantly lower.

GROSS DOMESTIC PRODUCT PER CAPITA : TOTAL BY REGION

Thousand 1985 MECU / inhabitan	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
World	3.23	3.36	3.55	3.62	3.58	3.59	3.65	0.8%	1.5%	-0.5%	0.3%	1.5%
Western Europe	9.93	10.64	11.59	12.16	12.23	12.13	12.43	1.4%	2.7%	0.3%	-0.8%	2.5%
European Union	9.72	10.40	11.35	11.92	11.99	11.89	12.18	1.4%	2.8%	0.3%	-0.9%	2.5%
EFTA	17.07	18.44	19.36	20.00	19.99	19.97	20.39	1.6%	1.6%	0.0%	-0.1%	2.1%
Central and Eastern Europe	2.53	2.63	2.74	2.59	2.17	2.14	2.28	0.8%	-0.3%	-8.4%	-1.2%	6.5%
CIS (1)	2.69	3.09	3.37	3.33	2.46	2.23	1.85	2.8%	1.5%	-14.1%	-9.2%	-16.9%
NAFTA	16.41	17.53	18.54	18.61	18.69	19.04	19.57	1.3%	1.4%	0.3%	1.8%	2.8%
OECD Pacific	12.49	14.38	16.01	17.22	17.97	17.95	18.06	2.9%	3.7%	2.1%	-0.1%	0.6%
Mediterranean	1.29	1.43	1.64	1.73	1.79	1.89	1.76	2.2%	3.9%	1.6%	5.5%	-6.8%
Africa	1.01	0.93	0.89	0.90	0.88	0.85	0.85	-1.7%	-0.5%	-1.4%	-2.6%	-0.7%
Middle East	6.21	4.99	4.20	4.27	4.35	4.34	4.29	-4.3%	-3.1%	1.0%	-0.2%	-1.2%
Asia	0.41	0.51	0.61	0.66	0.74	0.78	0.84	4.7%	5.4%	5.2%	6.3%	6.9%
Latin America	2.32	2.11	2.22	2.12	2.18	2.23	2.28	-1.9%	0.0%	1.5%	2.3%	2.2%

(1) Including Baltic countries for statistical reasons

Comparing **energy consumption per capita** in 1994 across regions, it is clear that NAFTA shows by far the highest ratio although the inclusion of Mexico diminishes this indicator to some extent. At the other extreme, Africa and Asia have the lowest levels, significantly below the world average (two thirds). As a whole, OECD regions (Mediterranean excepted) occupied the first four places with an energy consumption per capita between two (European Union) and four (NAFTA) times the world average. CIS, which still occupied the second rank in 1990 appears now as fifth.

GROSS INLAND ENERGY CONSUMPTION PER CAPITA : TOTAL BY REGION

toe/per inhabitant	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
World	1.54	1.53	1.60	1.57	1.53	1.52	1.51	-0.2%	0.5%	-1.3%	-0.9%	-0.5%
Western Europe	3.49	3.48	3.59	3.65	3.64	3.62	3.63	-0.1%	1.0%	0.0%	-0.6%	0.2%
European Union	3.48	3.46	3.58	3.63	3.62	3.60	3.61	-0.1%	1.0%	0.0%	-0.6%	0.2%
EFTA	3.87	4.12	4.15	4.29	4.33	4.35	4.31	1.3%	0.8%	0.5%	0.4%	-0.9%
Central and Eastern Europe	3.08	3.11	3.14	2.73	2.31	2.26	2.25	0.2%	-2.6%	-7.8%	-2.4%	-0.4%
CIS (1)	4.18	4.51	4.80	4.61	3.93	3.58	3.16	1.5%	0.5%	-7.7%	-8.9%	-11.7%
NAFTA	6.55	6.11	6.36	6.21	6.20	6.27	6.31	-1.4%	0.3%	-0.1%	1.1%	0.6%
OECD Pacific	3.17	3.20	3.45	3.71	3.83	3.89	4.05	0.2%	3.0%	1.6%	1.6%	4.0%
Mediterranean	0.72	0.79	0.89	0.97	0.98	1.01	0.98	1.8%	4.3%	0.4%	3.6%	-3.7%
Africa	0.47	0.53	0.53	0.53	0.52	0.51	0.51	2.1%	0.1%	-1.1%	-0.9%	0.2%
Middle East	1.46	1.70	1.82	1.76	1.90	1.96	2.01	3.1%	0.7%	3.9%	3.3%	2.4%
Asia	0.37	0.43	0.48	0.51	0.54	0.56	0.58	2.6%	3.7%	3.0%	2.8%	3.6%
Latin America	1.01	0.99	1.04	1.01	1.03	1.02	1.04	-0.4%	0.3%	1.1%	-1.5%	2.7%

(1) Including Baltic countries for statistical reasons

Total world average **energy intensity** shows a slight but continuous downward trend by about 1% between 1980 and 1994 even an acceleration in 1993 (-1.2%) and 1994 (-2.0%). OECD Pacific has the lowest intensity but presented in a recent evolution revealed an increasing trend (1.7% in 1993 and 3.4 % in 1994) resulting in an energy intensity equivalent in 1994 to the 1985 level. This evolution must be related to loss in energy efficiency observed mainly in Japan. Asia demonstrated the best improvement. NAFTA has the second lowest ratio 1980, although a stabilisation between 1990 and 1992. The European Union came third with a profile identical to NAFTA's one but an average gain a little below (1.3% per year on average since 1980). On the other hand, energy intensity increased in Latin America (0.3% per year), in Africa (1.8% per year) and in the Middle East (+5.1%) mainly in relation to the industrialisation of these regions. Finally, CIS which improved its ratio from around 1.2% per year during the 80s, lost in four year all this advantage, presenting in 1994 an energy intensity around 10% higher than in 1980.

ENERGY INTENSITY : TOTAL BY REGION

toe/1985 MECU	1980	1985	1988	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
								Annual % Change				
World	479	455	449	434	428	423	414	-1.0%	-0.9%	-0.7%	-1.2%	-2.0%
Western Europe	351	327	310	300	298	299	292	-1.4%	-1.7%	-0.3%	0.2%	-2.2%
European Union	358	332	315	304	302	303	296	-1.5%	-1.8%	-0.4%	0.2%	-2.2%
EFTA	227	224	214	214	217	218	212	-0.3%	-0.8%	0.5%	0.5%	-2.9%
Central and Eastern Europe	1215	1181	1146	1053	1066	1054	1012	-0.6%	-2.3%	0.6%	-1.1%	-4.0%
CIS (1)	1556	1459	1425	1386	1601	1606	1706	-1.3%	-1.0%	7.5%	0.3%	6.2%
NAFTA	399	348	343	330	332	330	323	-2.7%	-1.1%	0.2%	-0.7%	-2.1%
OECD Pacific	254	223	215	216	213	217	224	-2.6%	-0.6%	-0.5%	1.7%	3.4%
Mediterranean	560	548	543	560	548	537	555	-0.4%	0.4%	-1.2%	-1.8%	3.3%
Africa	469	568	598	584	587	597	603	3.9%	0.6%	0.3%	1.7%	0.9%
Middle East	235	341	434	413	437	452	469	7.8%	3.9%	2.9%	3.5%	3.7%
Asia	924	834	788	769	736	712	690	-2.0%	-1.6%	-2.2%	-3.3%	-3.1%
Latin America	437	470	466	477	473	456	458	1.5%	0.3%	-0.4%	-3.8%	0.5%

(1) Including Baltic countries for statistical reasons

World-wide **emissions of CO2** increased steadily by almost 1.5% per year until 1990 and have been stable since then. But this result must be nuanced. Since 1990, CO2 emissions are increasing in almost all regions in the world, in some cases by more than 5% per year (Asia and Middle East), with the exception of the European Union (-0.9% per year), which benefited from energy efficiency improvements, and former Centrally Planned Economies due to the drastic reduction of energy consumption observed, mainly in CIS since 1990.

CO2 EMISSIONS (1): TOTAL BY REGION

Mt of CO2	1980	1985	1988	1990	1991	1992	1993	85/80	90/85	92/90	93/92	93/90
								Annual % Change				
World	17693	18486	20142	20430	20493	20144	20404	0.9%	2.0%	-0.7%	1.3%	0.0%
Western Europe	3441	3275	3335	3400	3402	3364	3315	-1.0%	0.8%	-0.5%	-1.5%	-0.8%
European Union	3369	3202	3261	3326	3327	3286	3237	-1.0%	0.8%	-0.6%	-1.5%	-0.9%
EFTA	72	74	74	75	75	79	78	0.5%	0.3%	2.6%	-1.0%	1.4%
Central and Eastern Europe	1001	1016	1040	895	816	766	742	0.3%	-2.5%	-7.5%	-3.2%	-6.1%
CIS (2)	3203	3339	3587	3500	3335	2761	2614	0.8%	0.9%	-11.2%	-5.3%	-9.3%
NAFTA	5294	5205	5571	5554	5576	5602	5741	-0.3%	1.3%	0.4%	2.5%	1.1%
OECD Pacific	1100	1111	1201	1295	1318	1344	1341	0.2%	3.1%	1.9%	-0.2%	1.2%
Mediterranean	73	97	113	133	138	144	148	5.7%	6.6%	4.0%	3.2%	3.7%
Africa	412	503	557	587	598	600	626	4.1%	3.1%	1.0%	4.3%	2.1%
Middle East	366	511	592	622	654	706	751	6.9%	4.0%	6.6%	6.3%	6.5%
Asia	2264	2882	3537	3835	4022	4201	4444	4.9%	5.9%	4.7%	5.8%	5.0%
Latin America	539	545	609	609	634	656	682	0.2%	2.2%	3.8%	4.0%	3.8%
of which (%)												
European Union	19.0	17.3	16.2	16.3	16.2	16.3	15.9	-1.9%	-1.2%	0.1%	-2.7%	-0.9%
OECD	55.6	51.9	50.2	50.2	50.2	51.2	51.0	-1.4%	0.7%	1.0%	0.4%	0.5%

(1) In this table emissions from each region include those resulting from bunker fuels
(2) Including Baltic countries for statistical reasons

CO2 EMISSIONS: SHARE BY REGION

	1980	1985	1988	1990	1991	1992	1993
World	100	100	100	100	100	100	100
Western Europe	19.4	17.7	16.6	16.6	16.6	16.7	16.2
European Union	19.0	17.3	16.2	16.3	16.2	16.3	15.9
EFTA	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Central and Eastern Europe	5.7	5.5	5.2	4.4	4.0	3.8	3.6
CIS	18.1	18.1	17.8	17.1	16.3	13.7	12.8
NAFTA	29.9	28.2	27.7	27.2	27.2	27.8	28.1
OECD Pacific	6.2	6.0	6.0	6.3	6.4	6.7	6.6
Mediterranean	0.4	0.5	0.6	0.7	0.7	0.7	0.7
Africa	2.3	2.7	2.8	2.9	2.9	3.0	3.1
Middle East	2.1	2.8	2.9	3.0	3.2	3.5	3.7
Asia	12.8	15.6	17.6	18.8	19.6	20.9	21.8
Latin America	3.0	3.0	3.0	3.0	3.1	3.3	3.3
of which (%)							
European Union	19.0	17.3	16.2	16.3	16.2	16.3	15.9
OECD	55.6	51.9	50.2	50.2	50.2	51.2	51.0

WORLD : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(4)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	7045	7441	8465	8436	8443	8578	1.1%	2.6%	-0.1%	0.1%	1.6%
Solids	1812	2029	2210	2146	2097	2167	2.3%	1.7%	-1.5%	-2.3%	2.4%
Oil	3148	2859	3223	3236	3242	3277	-1.9%	2.4%	0.2%	0.2%	1.1%
Natural gas	1245	1432	1702	1679	1709	1727	2.8%	3.5%	-0.7%	1.8%	1.1%
Nuclear	187	387	519	544	562	580	15.6%	6.0%	2.4%	3.2%	3.3%
Hydro & Wind	153	175	190	196	207	206	2.7%	1.7%	1.5%	5.8%	-0.5%
Geothermal	12	20	32	40	41	41	11.4%	9.5%	12.4%	2.6%	-0.1%
Other	488	539	569	596	585	599	2.0%	1.1%	2.3%	-1.7%	2.4%
Net Imports(1)	-11	23	-11	9	30	9	-	-	-	224.4%	-69.2%
Solids	7	11	1	4	4	5	8.7%	-34.6%	66.7%	20.7%	1.5%
Oil	-20	17	-16	0	22	0	-	-	-	na	-99.3%
Crude oil	9	64	33	42	60	na	46.9%	-12.4%	12.6%	42.4%	na
Oil products	-29	47	-49	-42	-38	na	10.5%	0.7%	-7.3%	-9.1%	na
Natural gas	1	-5	4	5	4	5	-	-	18.7%	-27.8%	28.4%
Electricity	0	0	0	0	0	-1	-	-23.8%	20.0%	197.3%	34.5%
Gross Consumption (2)	6959	7465	8357	8432	8492	8570	1.4%	2.3%	0.4%	0.7%	0.9%
Solids	1795	2040	2187	2136	2149	2160	2.6%	1.4%	-1.2%	0.6%	0.5%
Oil	3090	2880	3183	3235	3237	3266	-1.4%	2.0%	0.8%	0.1%	0.9%
Natural gas	1234	1425	1678	1685	1711	1718	2.9%	3.3%	0.2%	1.5%	0.4%
Other (3)	840	1121	1309	1376	1395	1426	5.9%	3.2%	2.5%	1.4%	2.3%
Electricity Generation in TWh	8310	9832	11860	12261	12547	na	3.4%	3.8%	1.7%	2.3%	na
Nuclear	713	1492	2013	2123	2190	na	15.9%	6.2%	2.7%	3.1%	na
Hydro & wind	1750	2010	2189	2276	2405	na	2.8%	1.7%	2.0%	5.7%	na
Thermal	5847	6330	7658	7861	7952	na	1.6%	3.9%	1.3%	1.2%	na
Generation Capacity in GWe	1994	2433	2756	2854	2908	na	4.1%	2.5%	1.8%	1.9%	na
Nuclear	142	253	330	332	341	na	12.3%	5.4%	0.4%	2.6%	na
Hydro & wind	468	563	647	673	685	na	3.8%	2.8%	2.0%	1.8%	na
Thermal	1384	1616	1779	1849	1882	na	3.2%	1.9%	1.9%	1.8%	na
Average Load Factor in %	47.6	46.1	49.1	49.0	49.2	na	-0.6%	1.3%	0.1%	0.4%	na
Fuel Inputs for Thermal Power Generation	1561	1703	2025	2070	2140	na	1.8%	3.5%	1.1%	3.4%	na
Solids	845	991	1164	1188	1201	na	3.2%	3.3%	1.0%	1.1%	na
Oil	427	329	324	331	328	na	-5.1%	-0.3%	1.2%	-0.9%	na
Gas	275	358	459	460	519	na	5.4%	5.1%	0.1%	12.9%	na
Geothermal	11	19	31	39	40	na	11.4%	9.6%	12.8%	2.5%	na
Other	3	6	48	52	51	na	18.3%	49.5%	4.3%	-1.5%	na
Average Thermal Efficiency in %	32.2	32.0	32.6	32.7	32.0	na	-0.2%	0.4%	0.2%	-2.1%	na
Non-Energy Uses	337	345	411	425	391	na	0.5%	3.5%	1.7%	-8.1%	na
Total Final Energy Demand	4863	5122	5591	5575	5611	na	1.0%	1.8%	-0.1%	0.6%	na
Solids	806	871	880	797	787	na	1.6%	0.2%	-4.8%	-1.3%	na
Oil	2055	2002	2197	2215	2242	na	-0.5%	1.9%	0.4%	1.2%	na
Gas	804	849	968	950	959	na	1.1%	2.7%	-1.0%	0.9%	na
Electricity	588	695	834	876	893	na	3.4%	3.7%	2.5%	2.0%	na
Heat	131	167	186	191	194	na	5.0%	2.2%	1.4%	1.1%	na
Other	479	537	526	546	537	na	2.3%	-0.4%	1.9%	-1.7%	na
CO2 Emissions in Mt of CO2	17693	18486	20430	20144	20404	na	0.9%	2.0%	-0.7%	1.3%	na
Indicators											
Population (Million)	4434	4817	5244	5619	5509	5589	1.7%	1.7%	1.7%	1.7%	1.4%
GDP (index 1985=100)	88.4	100.0	117.1	119.8	122.1	125.7	2.5%	3.2%	1.2%	2.0%	2.9%
Gross Inl Cons./GDP (toe/1985 MECU)	478.6	455.1	434.1	427.7	422.6	414.2	-1.0%	-0.9%	-0.7%	-1.2%	-2.0%
Gross Inl Cons./Capita (toe/inhabitant)	1.57	1.55	1.59	1.56	1.54	1.53	-0.3%	0.6%	-1.2%	-0.9%	-0.3%
Electricity Generated/Capita (kWh/inhabitant)	1874	2041	2262	2262	2277	na	1.7%	2.1%	0.0%	0.7%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	4.0	3.8	3.9	3.7	3.7	na	-0.8%	0.3%	-2.3%	-0.4%	na

(1) corresponds to statistical errors
(2) Includes Bunkers
(3) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(4) Estimates

PART II WESTERN EUROPE

Final Energy Consumption

The volume of energy consumed in final demand sectors is a function, among other variables, of economic activity to a large extent. Since 1974, the **Gross Domestic Product** of the European Union had its fastest growth rate in the period from 1986 to 1990 (3.1% per year). Since then, GDP growth has been marked by a slowdown to 0.8% during 1991 and 1992 and by a recession in 1993 of 0.4%, on average for all Member States. Yet in 1992, the activity of Finland dropped by 5.4%, while Sweden and the United Kingdom had also a negative score. For the year 1993, nearly all Member States exhibited a drop in activity, with a maximum drop of about 2.6% in Sweden, 2.0% in Finland and a 1.7% drop in Belgium. However Ireland saw a growth of GDP of 4% during the same period, while Luxembourg and the UK exhibited an increase in GDP of about 2%. 1994 shows a general increase in GDP in all the member states. On an average the European Union reached 2.8%, with outstanding scores in Ireland (+6.3%), Denmark (+4.4%), Finland (+3.9%), United Kingdom (+3.8%) and Luxembourg (+3%). The slowest GDP recovery trends were found in Portugal (+1.1%) and in Greece (+1.2%).

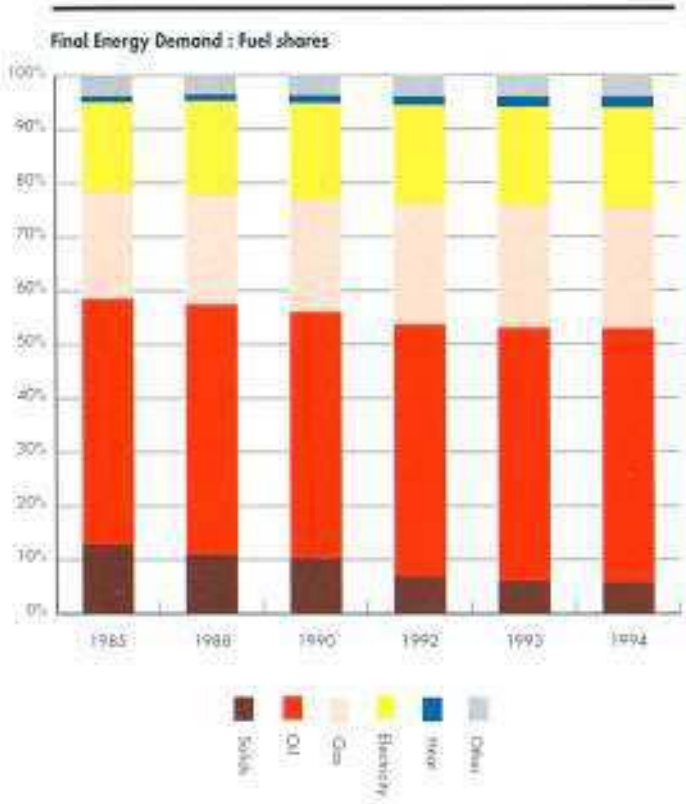
INDICES OF GROSS DOMESTIC PRODUCT (BILLIONS 1985 ECUS)

	1974	1980	1985	1990	1992	1993	1994	74/80	80/85	90/85	92/90	93/92	94/93
								Annual % Change					
Austria	68.7	80.8	86.2	99.9	104.7	104.6	107.5	2.7%	1.3%	3.0%	2.4%	-0.1%	2.7%
Belgium	88.8	101.5	105.7	122.4	127.5	125.3	128.2	2.3%	0.8%	3.0%	2.1%	-1.7%	2.3%
Denmark	59.9	67.3	76.7	82.3	84.1	85.1	88.8	2.0%	2.6%	1.4%	1.1%	1.2%	4.4%
Finland	52.9	61.4	70.6	83.5	74.7	73.3	76.1	2.5%	2.8%	3.4%	-5.4%	-2.0%	3.9%
France	550.7	641.6	691.7	801.7	816.2	808.0	829.8	2.6%	1.5%	3.0%	0.9%	-1.0%	2.7%
Germany	734.5	851.7	901.5	1037.0	1075.9	1063.8	1094.6	2.5%	1.1%	2.8%	1.9%	-1.1%	2.9%
Greece	37.4	49.1	52.4	57.1	59.4	59.1	59.8	4.6%	1.3%	1.7%	2.0%	-0.5%	1.2%
Ireland	16.8	22.1	25.1	33.2	35.8	37.2	39.6	4.7%	2.5%	5.7%	3.9%	4.0%	6.3%
Italy	426.1	522.2	559.8	650.1	662.9	658.5	672.9	3.5%	1.4%	3.0%	1.0%	-0.7%	2.2%
Luxembourg	3.9	4.0	5.0	6.7	7.2	7.4	7.6	0.7%	4.3%	6.2%	3.4%	2.1%	3.0%
Netherlands	141.8	161.2	169.4	196.9	203.9	204.7	209.8	2.2%	1.0%	3.1%	1.8%	0.3%	2.5%
Portugal	25.0	30.3	30.8	39.7	41.0	41.2	41.6	3.2%	0.3%	5.3%	1.5%	0.5%	1.1%
Spain	184.2	202.3	218.3	272.0	280.0	276.9	282.4	1.6%	1.5%	4.5%	1.5%	-1.1%	2.0%
Sweden	111.3	121.9	132.9	148.8	145.0	141.3	144.4	1.5%	1.7%	2.3%	-1.3%	-2.6%	2.2%
United Kingdom	504.8	548.1	604.7	712.3	694.6	708.7	735.6	1.4%	2.0%	3.3%	-1.2%	2.0%	3.8%
EUROPEAN UNION	**3006.7**	**3465.7**	**3730.8**	**4343.5**	**4413.0**	**4395.0**	**4518.9**	**2.4%**	**1.5%**	**3.1%**	**0.8%**	**-0.4%**	**2.8%**

The **total final energy demand** in the European Union (886.2 Mtoe in 1994) increased slightly by 0.7% yearly over the period 1985-1994. Oil remained the main energy vector (around 46% of the demand) and its consumption still increased faster than the global energy demand (1.2% over the period 1985-1994). A clear reduction in the demand for fossil fuel was observed (with a share dropping from 12 to 6%), especially during the period 1990-1993. At the same time, the heat demand increased yearly by 7.5%, with a peak increase of 25% during 1993; however, the contribution of heat and alternative forms of energy (renewable, wind, biomass, photovoltaic,...) represented only a share of about 5%, all together. Gas (22% share in 1994) and electricity demand (18.7% share) increased by 2.1% a year, reinforcing the contribution of energy distributed networks. These developments resulted from a switching away from solid fuels and to a lesser extent from oil in both Industry and the Domestic and Tertiary sector. The declining contribution of solid fuels must be associated to the conversion of the Iron & Steel sector to the electrical furnace and the continuing closing of mines limiting deliveries to the local workers, completed by the increasing standard of live in the German new Landers.

1 To avoid a break in the time series, the analysis on the European Union includes all data regarding the former German Democratic Republic on the considered horizon.

Industry



Energy consumption in Industry shows a yearly increase of about 0.5% over the period 1985 to 1994. The trend is generally continuous, except over the two last years: again the recession of 1993 induced a decrease of about 2.2%, completely compensated for over the year 1994. The Indices of Industrial Production (based on 1990 index basis) reflects the 93 recession with a slowdown of 3.2% in the European Union as a whole. Considering the period 1990-94 it demonstrates a slight decrease but the trends are contrasted depending on the Member States: the best score is realised by Ireland (133%), followed by the Nordic countries (Denmark 111%, Finland 107% and Sweden 103%), while Austria scores 105.9% over the same period. The weakest scores are obtained by Germany affected by the reunification (93.9%), Belgium (94.7%) and Portugal (94.9%).

Over the period 1990-94, the **Industrial Energy Intensity** increased on a 1990 index basis to 102.8 while the **Industrial production index** dropped to 99.4 over the same period. The analysis of the energy intensity ratio is complex: technological improvements happened but at the same time structural changes were taking place. The restructuring of the European industry, started after the second petroleum shock, was pursued, and induced a further reduction of activity in energy-intensive branches, such as iron & steel, chemicals and non-metallic minerals. But this trend stopped during 1993, the steel and the chemical industry showing evident signs of revival.

INDICES OF INDUSTRIAL PRODUCTION (1985=100)

	1980	1985	1988	1990	1992	1993	1994	80/85	90/85	92/90	93/92	94/93
								Annual % Change				
Austria	na	na	na	100.0	101.4	99.9	105.9	na	na	0.7%	-1.5%	6.0%
Belgium	81.5	84.9	92.5	100.0	98.0	92.9	94.6	0.8%	3.3%	-1.0%	-5.2%	1.8%
Denmark	76.3	92.8	97.1	100.0	103.1	100.4	111.1	4.0%	1.5%	1.5%	-2.6%	10.7%
Finland	na	87.9	97.1	100.0	92.1	96.9	107.3	na	2.6%	-4.0%	5.2%	10.7%
France	89.3	87.1	94.1	100.0	98.9	95.4	99.2	-0.5%	2.8%	-0.5%	-3.6%	4.0%
Germany	na	na	na	100.0	97.7	90.5	93.9	na	na	-1.2%	-7.3%	3.8%
Greece	90.9	97.2	100.8	100.0	97.7	94.8	95.7	1.4%	0.6%	-1.1%	-3.0%	1.0%
Ireland	54.2	69.6	85.6	100.0	112.7	119.1	133.3	5.1%	7.5%	6.2%	5.7%	11.9%
Italy	87.6	84.8	96.9	100.0	97.8	95.7	101.7	-0.6%	3.3%	-1.1%	-2.1%	6.2%
Luxembourg	69.7	84.6	93.1	100.0	99.5	95.2	100.7	4.0%	3.4%	-0.2%	-4.4%	5.8%
Netherlands	85.3	90.8	94.1	100.0	101.4	99.6	102.5	1.3%	1.9%	0.7%	-1.8%	2.9%
Portugal	62.5	73.9	85.9	100.0	99.6	95.2	94.9	3.4%	6.2%	-0.2%	-4.4%	-0.3%
Spain	82.9	86.0	95.5	100.0	96.0	91.8	98.7	0.7%	3.1%	-2.0%	-4.4%	7.5%
Sweden	81.3	90.1	94.0	100.0	93.5	93.3	103.1	2.1%	2.1%	-3.3%	-0.2%	10.5%
United Kingdom	na	88.2	98.2	100.0	96.1	98.4	103.3	na	2.6%	-2.0%	2.4%	5.0%
EUROPEAN UNION	na	na	na	100.0	98.1	95.0	99.4	na	na	-0.9%	-3.2%	4.7%

In terms of **fuel mix**, short term evolution confirms the significant changes that occurred during the past ten years: declining contribution of solids mainly by gas which presents the highest annual growth rate on the period 1985-1994 (+2.6%) and continuing increase in electricity consumption (+2.0%). But, from 1992, in line with low oil prices, the rebound of oil consumption in nearly all industrial sectors except the non-metallic minerals branch must be underlined (+3% in 1993 and +5.7% in 1994). In particular, the buoyant activity of the chemical industry in 1994 induced a sharp increase in oil (+7.2%) and gas consumption (+16.3%).

Overall, the resulting share of each fuel changed over the period 1985-1994 as follows: Solids from 21% to 16%, Oil from 23% to 19%, Gas from 27% to 32%, and electricity from 24% to 27%.

Energy developments in industry on a Member State basis demonstrate large discrepancies, with Ireland presenting a reduction of industrial energy intensity of about 41% on the 1990-94 period simultaneously with the fastest growth in industrial activity as a result of a very in-depth restructuration towards high added values industries. Conversly, Portugal continued its industrialisation, to a great extent based on energy-intensive branches, leading to a strong increase in industrial energy intensity of about 10% during 1993 and 1994 associated at the same time with an industrial production decline of about 5%. Structural changes and technological efficiency improvements led to significant, but not continuous, intensity gains in the four major Member States (France, Germany, Italy and the United Kingdom) the gain being most spectacular in Germany: more than 10%, in line with the restructuration and the closing of old industries in the new Landers. The share of total industrial energy

EUROPEAN UNION : INDUSTRY - FINAL ENERGY CONSUMPTION

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Total consumption	244.0	249.4	250.7	256.3	250.5	256.3	0.5%	1.1%	-2.2%	2.3%	0.5%
Iron & Steel	58.8	55.2	54.2	50.3	52.2	55.6	-1.6%	-3.7%	3.8%	6.5%	-0.6%
Chemicals	42.3	45.1	45.3	45.2	45.8	49.6	1.4%	-0.1%	1.2%	8.3%	1.8%
Building Materials	32.5	32.8	34.4	34.0	32.6	32.1	1.1%	-0.5%	-4.2%	-1.4%	-0.1%
Other	110.4	116.2	116.8	126.7	119.9	119.0	1.1%	4.2%	-5.3%	-0.8%	0.8%
Solids	51.1	46.4	45.9	45.7	40.5	41.0	-2.1%	-0.2%	-11.4%	1.1%	-2.4%
Iron & Steel	27.9	25.2	25.1	22.2	21.4	23.6	-2.1%	-6.0%	-3.3%	10.2%	-1.8%
Chemicals	4.4	4.8	4.2	3.8	3.3	3.4	-1.0%	-5.0%	-11.7%	1.4%	-2.9%
Building Materials	11.6	9.5	9.5	9.6	8.2	8.0	-3.8%	0.5%	-15.3%	-2.4%	-4.1%
Other	7.3	6.8	7.1	10.2	7.6	6.0	-0.4%	19.7%	-25.1%	21.0%	-2.1%
Oil	55.5	54.9	47.9	45.7	47.0	49.7	-2.9%	-2.4%	3.0%	5.7%	-1.2%
Iron & Steel	3.8	4.0	3.6	3.6	3.7	3.9	-0.7%	-0.4%	2.7%	5.2%	0.4%
Chemicals	11.3	11.5	9.6	7.5	8.5	9.1	-3.1%	-11.6%	13.3%	7.2%	-2.3%
Building Materials	8.8	9.3	9.5	8.9	8.4	8.5	1.7%	-3.1%	-5.6%	1.3%	-0.3%
Other	31.7	30.1	25.2	25.6	26.4	28.2	-4.5%	0.9%	3.0%	6.7%	-1.3%
Gas	65.2	71.4	76.4	82.0	81.3	82.4	3.2%	3.6%	-0.8%	1.4%	2.6%
Iron & Steel	19.1	17.8	17.5	16.4	19.4	20.2	-1.8%	-3.4%	18.3%	4.1%	0.6%
Chemicals	14.0	15.3	16.5	19.2	19.0	22.1	3.4%	7.7%	-0.9%	16.3%	5.2%
Building Materials	8.3	9.3	10.6	10.4	11.4	11.2	5.2%	-0.9%	9.4%	-2.0%	3.4%
Other	23.8	28.8	31.8	36.0	31.5	29.0	5.9%	6.5%	-12.5%	-8.0%	2.2%
Electricity	58.6	64.2	67.1	69.8	68.4	69.7	2.7%	2.0%	-2.0%	1.9%	1.9%
Iron & Steel	8.0	8.2	7.9	8.1	7.7	7.9	-0.1%	1.3%	-5.3%	2.7%	-0.1%
Chemicals	12.5	13.4	14.8	14.6	14.8	14.9	3.4%	-0.6%	1.1%	0.8%	2.0%
Building Materials	3.9	4.5	4.7	5.0	4.6	4.5	3.6%	3.5%	-8.8%	-2.9%	1.4%
Other	34.2	38.1	39.6	41.9	41.2	42.4	3.0%	2.9%	-1.6%	2.8%	2.4%
Heat	2.8	3.3	2.3	2.4	2.2	2.1	-3.9%	3.6%	-10.3%	-5.5%	-3.2%
Industrial Production Index (1990=100)	na	94.4	100.0	98.1	95.0	99.4	na	-0.9%	-3.2%	4.7%	na
Industrial Energy Intensity (1990=100)	na	105.4	100.0	104.2	105.2	102.8	na	2.1%	1.0%	-2.3%	na

demand of these four Member States remained globally stable, representing 68.3% in 1990 and 66.6% in 1994. Denmark and the Netherlands also present significant gains in intensity, with the latter (8.2% improvement from 1990 to 1994) performing as well as Germany, and the former with gains (6.8% since 1990) significantly better than the three other major countries.

The spectacular improvement that occurred in Luxembourg during 1994 (10.3%) is largely the result of the reconversion of the Iron & Steel industry to the electrical furnace. Spain also continued its fast industrialisation, inducing a significant increase in the use of energy for industrial purposes (7% in 1994). After a period of rationalisation of industrial use of energy, leading to a reduction of the energy intensity index from 110.4 in 1985 down to 100 in 1990, this one climbed again between 1990 and 1994, up to 104. Belgium, marked by the weight of heavy industries; mainly iron & steel and chemicals, shows also an increasing energy intensity peaking in 1994 to 106.9% of the 1990 level.

The situation in the new Member States is not homogeneous with Austria showing a continuous drop in energy intensity, being at 84.6% of the 1990 level in 1994 while at the same time the energy consumption dropped by less than 10% as a result of a drastic industrial restructuring. Finland showed a 10% increase in energy consumption during 1993, while its energy intensity index reached a peak value of 116.5 (1990=100) to retrieve in 1994 a value of 105 (-9.8%) but Finland has been affected by the deepest recession in the European Union between 1990 and 1993 with a GDP reduction of 4.4 % per year. In 1994, industrial activities benefited from better conditions (GDP: + 3.9 %). Sweden also showed a more limited recession in the period 1990-93 (-1.7% per year) inducing an increase in energy intensity through a lower utilisation rate of capacities. The rebound of the economy in 1994 allowed Sweden to match the 1990 level.

The **prices of energy for industrial consumers** (1990 ECU per toe), over the 1985-1994 period show an average yearly decrease of 4.1% for steam coal, 10.7% for heavy oil, 8.8% for natural gas and 2.3% for electricity considering a weighted average at the European level. During 1994, the average European price per toe of heavy fuel (112.9 ECU) and natural gas (116 ECU) were about the same, 5 to 10% more expensive than steam coal, (106.6 ECU). Electricity prices remained more than five times higher (596.3 ECU per toe). From country to country, the prices for the different energy vectors show important discrepancies in both value and trends depending on supply conditions, market mechanisms and taxation.

INDUSTRY: Recent evolution (1990-1994)

- **Quite stable industrial production at the European level despite 92-93 recession but large discrepancies between Member States**
- **Rebound of heavy industries activities (Iron & Steel and Chemicals)**
- **Increasing energy intensity at the European level (+2.8% since 1990)**
- **Increasing contribution of gas (from 30.5% of the total consumption in 1990 to 32.2 % in 1994).**
- **Rebound of oil consumption after 1992**

INDUSTRIAL ENERGY CONSUMPTION

	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Austria											
Total Consumption (Mtoe)	5.9	5.8	5.8	5.3	5.2	5.2	-0.3%	-4.5%	-2.4%	0.7%	-1.4%
Share in European Union (%)	2.2%	2.1%	2.2%	2.1%	2.1%	2.0%	-0.4%	-1.9%	0.3%	-1.5%	-0.8%
Industrial Energy Intensity (1990=100)	na	na	100.0	89.9	89.0	84.6	na	-5.2%	-1.0%	-5.0%	na
Belgium											
Total Consumption (Mtoe)	10.5	11.0	11.3	11.7	11.0	11.5	1.5%	1.4%	-5.5%	4.0%	1.0%
Share in European Union (%)	3.9%	4.0%	4.2%	4.6%	4.4%	4.5%	1.4%	4.1%	-3.4%	1.7%	1.5%
Industrial Energy Intensity (1990=100)	109.3	104.9	100.0	104.9	104.7	106.9	-1.8%	2.4%	-0.2%	2.1%	-0.2%
Denmark											
Total Consumption (Mtoe)	2.7	2.6	2.7	2.7	2.7	2.8	0.3%	-1.7%	1.6%	5.5%	0.6%
Share in European Union (%)	1.0%	1.0%	1.0%	1.0%	1.1%	1.1%	0.2%	0.9%	3.9%	3.2%	1.1%
Industrial Energy Intensity (1990=100)	106.1	98.3	100.0	93.7	97.7	93.2	-1.2%	-3.2%	4.3%	-4.7%	-1.4%
Finland											
Total Consumption (Mtoe)	8.0	8.7	8.8	9.0	9.9	9.9	1.8%	1.2%	10.2%	-0.2%	2.4%
Share in European Union (%)	3.0%	3.1%	3.2%	3.5%	3.9%	3.9%	1.7%	4.0%	12.6%	-2.3%	2.9%
Industrial Energy Intensity (1990=100)	104.0	102.0	100.0	111.3	116.5	105.0	-0.8%	5.5%	4.7%	-9.8%	0.1%
France											
Total Consumption (Mtoe)	37.8	36.9	36.9	36.5	36.3	35.4	-0.5%	-0.6%	0.5%	-2.6%	-0.7%
Share in European Union (%)	14.0%	13.4%	13.6%	14.2%	14.5%	13.8%	-0.6%	2.1%	1.7%	-4.7%	0.2%
Industrial Energy Intensity (1990=100)	117.6	106.2	100.0	100.0	103.1	96.6	-3.2%	0.0%	3.1%	-6.3%	-2.2%
Germany											
Total Consumption (Mtoe)	85.1	84.4	77.1	68.4	63.7	64.6	-1.9%	-5.8%	-6.9%	1.5%	-3.0%
Share in European Union (%)	31.6%	30.6%	28.5%	26.7%	25.4%	25.2%	-2.0%	-3.2%	-4.8%	-0.8%	-2.5%
Industrial Energy Intensity (1990=100)	na	na	100.0	90.9	91.3	89.3	na	-4.7%	0.5%	-2.2%	na
Greece											
Total Consumption (Mtoe)	3.7	4.0	3.9	3.8	3.6	3.7	0.9%	-1.7%	-2.7%	1.9%	0.0%
Share in European Union (%)	1.4%	1.5%	1.4%	1.5%	1.5%	1.5%	0.8%	1.0%	-0.6%	0.3%	0.6%
Industrial Energy Intensity (1990=100)	98.4	103.5	100.0	99.0	99.2	100.1	0.3%	-0.5%	0.2%	0.9%	0.2%
Ireland											
Total Consumption (Mtoe)	1.8	1.8	2.1	2.0	1.6	1.6	3.3%	-2.5%	-18.0%	0.8%	-0.9%
Share in European Union (%)	0.7%	0.7%	0.8%	0.8%	0.7%	0.6%	3.2%	0.1%	-16.2%	-1.4%	-0.3%
Industrial Energy Intensity (1990=100)	121.9	101.9	100.0	84.3	65.3	58.9	-3.9%	-8.2%	-22.5%	-9.9%	-7.6%
Italy											
Total Consumption (Mtoe)	31.5	35.1	36.9	33.8	34.9	35.9	3.2%	-4.3%	3.3%	2.8%	1.5%
Share in European Union (%)	11.7%	12.7%	13.6%	13.2%	13.9%	14.0%	3.1%	-1.7%	5.6%	0.6%	2.0%
Industrial Energy Intensity (1990=100)	100.6	98.2	100.0	93.6	98.9	95.7	0.1%	-3.2%	5.6%	-3.2%	-0.5%
Luxembourg											
Total Consumption (Mtoe)	1.8	1.6	1.7	1.6	1.6	1.6	-0.6%	-3.4%	2.7%	-5.6%	-1.5%
Share in European Union (%)	0.7%	0.6%	0.6%	0.6%	0.7%	0.6%	-0.7%	-0.8%	4.9%	-7.7%	-0.9%
Industrial Energy Intensity (1990=100)	121.9	102.0	100.0	93.7	100.6	89.7	-3.9%	-3.2%	7.3%	-10.8%	-3.3%
Netherlands											
Total Consumption (Mtoe)	13.7	13.1	13.2	12.5	13.2	12.4	-0.7%	-2.6%	5.4%	-5.9%	-1.1%
Share in European Union (%)	5.1%	4.8%	4.9%	4.9%	5.3%	4.9%	-0.8%	0.0%	7.8%	-8.0%	-0.5%
Industrial Energy Intensity (1990=100)	114.2	105.5	100.0	93.6	100.5	91.8	-2.6%	-3.3%	7.3%	-8.6%	-2.4%
Portugal											
Total Consumption (Mtoe)	3.7	3.8	4.1	4.2	4.1	4.3	2.3%	0.4%	-2.7%	6.9%	1.8%
Share in European Union (%)	1.4%	1.4%	1.5%	1.6%	1.6%	1.7%	2.2%	3.1%	-0.6%	4.5%	2.4%
Industrial Energy Intensity (1990=100)	120.6	107.6	100.0	101.2	103.0	110.4	-3.7%	0.6%	1.7%	7.2%	-1.0%
Spain											
Total Consumption (Mtoe)	18.8	19.4	19.8	19.2	19.0	20.3	1.0%	-1.5%	-1.2%	7.2%	0.9%
Share in European Union (%)	7.0%	7.0%	7.3%	7.5%	7.6%	7.9%	0.9%	1.2%	1.0%	4.9%	1.4%
Industrial Energy Intensity (1990=100)	110.4	102.5	100.0	101.1	104.5	104.2	-2.0%	0.6%	3.3%	-0.2%	-0.6%
Sweden											
Total Consumption (Mtoe)	11.8	12.1	11.8	11.3	11.7	12.1	-0.1%	-1.9%	3.3%	3.1%	0.2%
Share in European Union (%)	4.4%	4.4%	4.4%	4.4%	4.7%	4.7%	-0.2%	0.7%	5.6%	0.8%	0.7%
Industrial Energy Intensity (1990=100)	111.6	109.3	100.0	102.9	106.5	99.3	-2.2%	1.4%	3.5%	-6.8%	-1.3%
United Kingdom											
Total Consumption (Mtoe)	32.3	35.2	34.2	34.3	32.0	34.9	1.1%	0.2%	-6.7%	8.8%	0.8%
Share in European Union (%)	12.0%	12.8%	12.6%	13.4%	12.8%	13.6%	1.0%	2.9%	-4.6%	6.4%	1.4%
Industrial Energy Intensity (1990=100)	107.3	104.9	100.0	104.5	95.3	98.7	-1.4%	2.2%	-8.8%	3.5%	-0.9%
European Union											
Total Consumption (Mtoe)	269.07	275.55	270.34	256.22	250.63	256.25	0.1%	-2.6%	-2.2%	2.2%	-0.5%
Industrial Energy Intensity (1990=100)	na	105.4	100.0	104.2	105.2	102.8	na	2.1%	1.0%	-2.3%	na

ENERGY PRICES TO INDUSTRIAL CONSUMERS IN CONSTANT 1990 ECU PER TOE (1)

		1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
								Annual % Change				
Austria	Steam Coal	154.6	97.0	91.7	89.4	76.5	71.8	-9.9%	-1.2%	-14.4%	-6.2%	-8.2%
	Heavy fuel oil 3.5 % S	310.5	109.2	98.7	96.0	89.8	72.5	-20.5%	-1.4%	-6.5%	-19.2%	-14.9%
	Natural gas	304.7	150.8	138.9	130.2	122.5	118.6	-14.5%	-3.2%	-5.9%	-3.2%	-10.0%
	Electricity	726.2	699.4	598.2	575.8	600.7	579.1	-3.8%	-1.9%	4.3%	-3.6%	-2.5%
Belgium	Steam Coal	120.5	72.8	62.4	55.2	51.1	46.7	-12.3%	-6.0%	-7.3%	-8.7%	-10.0%
	Heavy fuel oil 3.5 % S	270.5	85.1	98.4	73.5	80.1	85.0	-18.3%	-13.6%	9.1%	6.1%	-12.1%
	Natural gas	273.6	106.0	113.7	103.6	97.0	88.2	-16.1%	-4.6%	-6.4%	-9.1%	-11.8%
	Electricity	775.2	582.4	584.7	533.7	518.8	487.8	-5.5%	-4.5%	-2.8%	-6.0%	-5.0%
Denmark	Steam Coal	191.2	127.3	134.9	121.8	84.5	79.5	-6.7%	-5.0%	-30.6%	-5.9%	-9.3%
	Heavy fuel oil 3.5 % S	286.2	111.1	120.4	95.0	112.5	107.7	-15.9%	-11.1%	18.4%	-4.3%	-10.3%
	Electricity	875.7	533.2	569.8	569.6	638.3	548.7	-8.2%	0.0%	12.1%	-14.0%	-5.1%
Finland	Steam Coal	128.7	75.5	78.7	78.7	79.4	87.7	-9.4%	0.0%	1.0%	10.3%	-6.2%
	Heavy fuel oil 3.5 % S	345.5	132.1	144.9	127.3	154.4	167.0	-15.9%	-6.3%	21.3%	8.1%	-7.8%
	Natural gas	270.8	113.3	115.5	111.5	113.2	116.6	-15.7%	-1.8%	1.6%	3.0%	-8.9%
	Electricity	765.6	621.7	578.4	570.2	604.4	585.8	-5.3%	-0.7%	6.0%	-3.1%	-2.9%
France	Steam Coal	144.6	111.2	106.1	102.4	101.2	99.5	-6.0%	-1.8%	-1.2%	-1.7%	-4.1%
	Heavy fuel oil 3.5 % S	288.2	98.7	110.2	89.4	81.8	107.9	-17.5%	-9.9%	-8.5%	32.0%	-10.3%
	Natural gas	271.1	123.2	122.2	110.7	108.6	103.8	-14.7%	-4.8%	-1.9%	-4.5%	-10.1%
	Electricity	599.3	517.2	516.5	481.5	483.1	452.0	-2.9%	-3.4%	0.3%	-6.4%	-3.1%
Germany	Steam Coal	209.0	211.2	202.8	202.2	195.2	190.3	-0.6%	-0.1%	-3.5%	-2.5%	-1.0%
	Heavy fuel oil 3.5 % S	284.5	96.1	115.0	96.6	87.0	87.8	-16.6%	-8.4%	-10.0%	0.9%	-12.2%
	Natural gas	284.0	127.8	147.7	141.8	134.7	126.7	-12.3%	-2.0%	-5.0%	-5.9%	-8.6%
	Electricity	833.2	880.0	835.3	765.2	747.3	735.1	0.0%	-4.3%	-2.3%	-1.6%	-1.4%
Greece	Heavy fuel oil 3.5 % S	284.9	169.2	129.3	114.6	99.7	118.7	-14.6%	-5.8%	-13.0%	19.0%	-9.3%
	Electricity	775.4	657.6	593.3	553.1	495.4	na	-5.2%	-3.4%	-10.4%	-	-
Ireland	Heavy fuel oil 3.5 % S	328.2	130.9	129.9	108.4	119.2	122.9	-16.9%	-8.7%	9.9%	3.1%	-10.3%
	Natural gas	389.0	280.4	260.8	245.1	240.8	234.4	-7.7%	-3.0%	-1.8%	-2.6%	-5.5%
	Electricity	965.7	700.3	619.5	582.4	574.3	561.4	-8.5%	-3.0%	-1.4%	-2.2%	-5.8%
Italy	Steam Coal	132.8	74.6	66.0	54.4	67.1	64.1	-13.1%	-9.2%	23.3%	-4.5%	-7.8%
	Heavy fuel oil 3.5 % S	303.0	88.3	150.9	139.8	137.4	141.4	-13.0%	-3.8%	-1.7%	3.0%	-8.1%
	Natural gas	271.7	86.9	123.7	128.3	132.8	137.5	-14.6%	1.8%	3.5%	3.6%	-7.3%
	Electricity	1183.0	863.3	893.9	948.1	951.6	952.8	-5.4%	3.0%	0.4%	0.1%	-2.4%
Luxembourg	Heavy fuel oil 3.5 % S	287.6	93.3	106.7	101.1	89.7	93.0	-18.0%	-2.7%	-11.2%	3.7%	-11.8%
	Electricity	739.6	708.0	649.0	571.0	559.0	na	-2.6%	-6.2%	-2.1%	-	-
Netherlands	Steam Coal	129.1	65.0	70.6	na	na	na	-11.4%	-	-	-	-
	Heavy fuel oil 3.5 % S	275.3	119.8	147.5	129.7	126.7	123.4	-11.7%	-6.2%	-2.3%	-2.6%	-6.5%
	Natural gas	234.9	97.9	98.6	86.6	87.8	82.6	-15.9%	-6.3%	1.4%	-6.0%	-11.0%
	Electricity	690.4	451.0	479.3	422.3	472.0	462.6	-7.0%	-6.1%	11.8%	-2.0%	-4.4%
Portugal	Steam Coal	158.7	88.6	70.2	53.4	48.2	na	-15.1%	-12.8%	-9.6%	-	-
	Heavy fuel oil 3.5 % S	294.9	163.2	147.8	126.0	119.2	110.7	-12.9%	-7.7%	-5.4%	-7.1%	-10.3%
	Electricity	1050.7	1115.4	1059.7	1035.8	973.3	913.7	0.2%	-1.1%	-6.0%	-6.1%	-1.5%
Spain	Heavy fuel oil 3.5 % S	365.8	130.8	119.9	97.3	105.4	122.0	-20.0%	-9.9%	8.3%	15.7%	-11.5%
	Natural gas	451.5	254.6	130.9	107.5	108.1	116.0	-21.9%	-9.4%	0.5%	7.3%	-14.0%
	Electricity	969.3	1015.6	892.7	859.6	825.2	785.8	-1.6%	-1.9%	-4.0%	-4.8%	-2.3%
Sweden	Steam Coal	145.6	107.6	98.1	na	na	na	-7.6%	-	-	-	-
	Heavy fuel oil 3.5 % S	432.7	250.3	304.0	264.3	164.6	147.6	-6.8%	-6.8%	-37.7%	-10.4%	-11.3%
	Electricity	503.6	465.5	456.2	445.2	363.4	369.8	-2.0%	-1.2%	-18.4%	1.8%	-3.4%
United Kingdom	Steam Coal	151.3	113.2	99.5	88.2	81.1	78.3	-8.1%	-5.9%	-8.0%	-3.4%	-7.1%
	Heavy fuel oil 3.5 % S	293.4	109.6	108.1	84.2	84.1	94.6	-18.1%	-11.7%	-0.2%	12.6%	-11.8%
	Natural gas	212.3	152.2	124.9	114.6	107.9	101.1	-10.1%	-4.2%	-5.8%	-6.4%	-7.9%
	Electricity	777.3	711.0	623.7	645.1	658.5	635.5	-4.3%	1.7%	2.1%	-3.5%	-2.2%
European Union	Steam Coal	155.9	130.3	121.4	116.0	112.6	106.6	-4.9%	-2.3%	-2.9%	-5.3%	-4.1%
	Heavy fuel oil 3.5 % S	311.5	114.6	129.4	107.2	102.8	112.9	-16.1%	-9.0%	-4.2%	9.8%	-10.7%
	Natural gas	265.0	125.5	128.4	122.6	119.7	116.0	-13.3%	-2.3%	-2.4%	-3.1%	-8.8%
	Electricity	734.0	658.9	632.5	621.8	613.3	596.3	-2.9%	-0.9%	-1.4%	-2.8%	-2.3%

(1) Excluding refundable VAT

Transport

Energy consumption in Transport grew from 1985 to 1994 at an annual average rate of 3.4 % but on the period 1990-94, the growth remained limited to 1.8% per year. In fact, the elasticity of energy consumption in the transport sector to GDP was 1.58 over this period, but presented very large variations during this period: 1.48 for the period 1985-1990, 5.5 for the recession period 1991-1993 and finally 1.25 in 1994. Apart from economic activity, the real prices for transport fuel have remained quite stable since 1988 despite increasing taxation, and the evolution of private consumption influenced the energy consumption in Transport.

Recent observations both at the European and Member States level seems to indicate that the Transport energy Intensity perhaps peaked in the beginning of the 90's. But without statistical disaggregation between private and freight transport it is not possible until now to appreciate this new evolution.

The structure of the Transport sector remained stable in the period 1990-94, with road transport accounting for 84%. At the same time the share of diesel oil in total road consumption continued to increase, passing from 41% in 1990 to 45% in 1994 as a consequence of increasing freight transport and dieselisation of cars. The other growth area was air transport: jet fuel consumption grew continuously since 1985 by about 4.7% per year with a more limited increase between 1990 and 1992 (+2.1% per year).

Electricity consumption for transport grew at the same rate as the total energy consumption in Transport (+3.5% per year between 1985 and 1994) maintaining its contribution to only 1.5% of the total consumption.

The **transport energy intensity** grew continuously by 1.5% over the last decade, while the total number of vehicles in circulation raised from 138.2 million to 174.6 over the same period. Except for Ireland, all Member States show increases in the Transport Energy Intensity on the period 1985-1994. Luxembourg has the highest degree of both transport energy intensity increases and consumption per vehicle. This reflects only the fact that consumers in neighbouring Member States (Belgium, France and Germany) took advantage of lower prices and got a part of their supplies in Luxembourg. Between 1990 and 1994, four categories of behaviour could be identified: the first concerns Portugal and Spain where the intensity increased by more than 2.6% (4.6% in Portugal) due to increasing use of vehicles; the second including Austria, Belgium, Finland, Greece, Italy, Netherlands and Sweden where the intensity increased between 1% and 2% per year; a third including France, Germany and the United Kingdom where the intensity increased by less than 0.3% per year (stable in the United Kingdom); and finally Ireland (-1.5% per year) and Denmark (-1.5% per year) which presented gains in intensity.

EUROPEAN UNION : TRANSPORT - FINAL ENERGY CONSUMPTION

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Total consumption	201.83	233.55	252.98	264.72	270.83	272.21	4.6%	2.3%	2.3%	0.5%	3.4%
Solids	0.33	0.13	0.10	0.01	0.01	0.01	-21.2%	-70.5%	62.4%	-1.9%	-29.7%
Oil	197.87	229.57	248.67	260.19	266.11	267.33	4.7%	2.3%	2.3%	0.5%	3.4%
of which:											
Road	**169.69**	**196.64**	**211.50**	**221.42**	**226.34**	**226.37**	**4.5%**	**2.3%**	**2.2%**	**0.0%**	**3.3%**
Motor Gasoline	*105.05*	*116.45*	*121.39*	*124.36*	*125.45*	*121.66*	*2.9%*	*1.2%*	*0.9%*	*-3.0%*	*1.6%*
Diesel Oil	*62.32*	*77.64*	*87.43*	*94.58*	*98.33*	*102.03*	*7.0%*	*4.0%*	*4.0%*	*3.8%*	*5.6%*
Air	**20.74**	**25.08**	**27.63**	**28.80**	**30.05**	**31.30**	**5.9%**	**2.1%**	**4.4%**	**4.2%**	**4.7%**
Jet Fuel	*20.61*	*24.90*	*27.49*	*28.67*	*29.92*	*31.18*	*5.9%*	*2.1%*	*4.4%*	*4.2%*	*4.7%*
Gas	0.24	0.22	0.21	0.24	0.24	0.25	2.9%	6.6%	1.2%	4.7%	0.4%
Electricity	3.39	3.63	4.00	4.28	4.47	4.62	3.4%	3.4%	4.3%	3.4%	3.5%
Transport Energy Intensity (toe/1985 Mecu)	54.10	56.93	58.24	59.99	61.62	60.24	1.5%	1.5%	2.7%	-2.2%	1.2%
Transport Energy Intensity (1990=100)	92.88	97.75	100.00	102.99	105.80	103.43	1.5%	1.5%	2.7%	-2.2%	1.2%
No. of Vehicles (millions)	138.24	152.44	163.83	171.88	174.65	no	3.5%	2.4%	1.6%	no	no
Specific Consumption in Road Traffic (toe/vehicle)	1.23	1.29	1.29	1.29	1.30	no	1.0%	-0.1%	0.6%	no	no

MAIN INDICATORS : TRANSPORT

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85	94/90
							Annual % Change					
Austria	**4.52**	**5.06**	**5.40**	**6.00**	**6.07**	**6.09**	**3.6%**	**5.5%**	**1.2%**	**0.2%**	**3.4%**	**3.0%**
Transport Energy Intensity (toe/1985 Mecu)	52.41	54.79	54.04	57.33	58.03	56.62	0.6%	3.0%	1.2%	-2.4%	0.9%	1.2%
Road Consumption	4.02	4.47	4.75	5.25	5.33	5.30	3.4%	5.1%	1.4%	-0.4%	3.1%	2.8%
Specific consumption in (toe/vehicle)	1.49	1.52	1.49	1.54	1.49	na	0.1%	1.7%	-3.1%	na	na	na
Belgium	**6.13**	**7.39**	**7.70**	**8.28**	**8.35**	**8.48**	**4.7%**	**3.7%**	**0.8%**	**1.5%**	**3.7%**	**2.4%**
Transport Energy Intensity (toe/1985 Mecu)	58.03	64.46	62.93	64.96	66.62	66.11	1.6%	1.6%	2.6%	-0.8%	1.5%	1.2%
Road Consumption	5.12	6.39	6.44	6.75	6.91	7.06	4.7%	2.3%	2.3%	2.3%	3.6%	2.3%
Specific consumption in (toe/vehicle)	1.40	1.61	1.52	1.50	1.48	na	1.7%	-0.2%	-1.0%	na	na	na
Denmark	**3.63**	**3.96**	**4.50**	**4.45**	**4.38**	**4.58**	**4.4%**	**-0.5%**	**-1.5%**	**4.6%**	**2.6%**	**0.4%**
Transport Energy Intensity (toe/1985 Mecu)	47.37	49.09	54.69	52.91	51.51	51.51	2.9%	-1.6%	-2.7%	0.0%	0.9%	-1.5%
Road Consumption	2.80	2.81	3.20	3.27	3.33	3.50	2.7%	1.1%	2.0%	4.9%	2.5%	2.3%
Specific consumption in (toe/vehicle)	1.58	1.48	1.68	1.68	1.70	na	1.3%	0.1%	1.2%	na	na	na
Finland	**3.35**	**3.92**	**4.27**	**4.09**	**4.03**	**4.16**	**5.0%**	**-2.1%**	**-1.5%**	**3.2%**	**2.4%**	**-0.6%**
Transport Energy Intensity (toe/1985 Mecu)	47.37	49.60	51.10	54.71	54.97	54.63	1.5%	3.5%	0.5%	-0.6%	1.6%	1.7%
Road Consumption	2.90	3.36	3.63	3.52	3.47	3.56	4.6%	-1.5%	-1.6%	2.5%	2.3%	-0.5%
Specific consumption in (toe/vehicle)	1.29	1.44	1.51	1.44	1.39	na	3.3%	-2.5%	-3.6%	na	na	na
France	**33.52**	**38.67**	**41.93**	**42.58**	**44.54**	**43.52**	**4.6%**	**0.8%**	**4.6%**	**-2.3%**	**2.9%**	**0.9%**
Transport Energy Intensity (toe/1985 Mecu)	48.46	51.26	52.30	52.17	55.12	52.45	1.5%	-0.1%	5.7%	-4.9%	0.9%	0.1%
Road Consumption	29.39	33.75	36.17	36.41	38.17	37.07	4.2%	0.3%	4.8%	-2.9%	2.6%	0.6%
Specific consumption in (toe/vehicle)	1.21	1.29	1.32	1.30	1.35	na	1.8%	-1.0%	4.1%	na	na	na
Germany	**47.23**	**53.30**	**57.95**	**60.66**	**62.43**	**61.95**	**4.2%**	**2.3%**	**2.9%**	**-0.8%**	**3.1%**	**1.7%**
Transport Energy Intensity (toe/1985 Mecu)	52.39	55.04	55.88	56.38	58.68	56.60	1.3%	0.4%	4.1%	-3.6%	0.9%	0.3%
Road Consumption	40.39	45.96	49.66	52.53	54.03	53.16	4.2%	2.9%	2.9%	-1.6%	3.1%	1.7%
Specific consumption in (toe/vehicle)	1.21	1.26	1.29	1.28	1.29	na	1.2%	-0.4%	0.4%	na	na	na
Greece	**4.68**	**5.18**	**5.82**	**6.15**	**6.45**	**6.44**	**4.5%**	**2.8%**	**4.9%**	**-0.1%**	**3.6%**	**2.6%**
Transport Energy Intensity (toe/1985 Mecu)	89.17	93.47	101.94	103.55	109.18	107.73	2.7%	0.8%	5.4%	-1.3%	2.1%	1.4%
Road Consumption	3.06	3.56	3.90	4.28	4.38	4.44	5.0%	4.7%	2.4%	1.3%	4.2%	3.3%
Specific consumption in (toe/vehicle)	1.62	1.61	1.59	1.61	1.62	na	-0.4%	0.5%	0.9%	na	na	na
Ireland	**1.69**	**1.81**	**1.97**	**2.04**	**2.08**	**2.30**	**3.1%**	**1.8%**	**1.7%**	**10.9%**	**3.5%**	**4.0%**
Transport Energy Intensity (toe/1985 Mecu)	67.39	63.64	59.40	56.99	55.75	58.16	-2.5%	-2.0%	-2.2%	4.4%	-1.6%	-0.5%
Road Consumption	1.43	1.40	1.56	1.72	1.74	1.81	1.7%	4.9%	1.1%	4.2%	2.6%	3.8%
Specific consumption in (toe/vehicle)	1.74	1.57	1.63	1.70	1.69	na	-1.3%	2.2%	-1.0%	na	na	na
Italy	**27.75**	**31.11**	**33.40**	**35.84**	**36.60**	**36.72**	**3.8%**	**3.6%**	**2.1%**	**0.3%**	**3.2%**	**2.4%**
Transport Energy Intensity (toe/1985 Mecu)	49.57	50.31	51.38	54.07	55.58	54.56	0.7%	2.6%	2.8%	-1.8%	1.1%	1.5%
Road Consumption	24.99	28.44	30.39	32.51	33.22	33.24	4.0%	3.4%	2.2%	0.1%	3.2%	2.3%
Specific consumption in (toe/vehicle)	1.01	1.03	1.01	1.00	1.01	na	0.0%	-0.3%	0.7%	na	na	na
Luxembourg	**0.60**	**0.74**	**1.01**	**1.28**	**1.29**	**1.34**	**10.9%**	**12.6%**	**0.8%**	**4.1%**	**9.4%**	**7.4%**
Transport Energy Intensity (toe/1985 Mecu)	120.36	126.37	149.45	177.14	174.97	176.92	4.4%	8.9%	-1.2%	1.1%	4.4%	4.3%
Road Consumption	0.51	0.62	0.87	1.13	1.15	1.17	11.2%	14.0%	1.3%	1.8%	9.6%	7.6%
Specific consumption in (toe/vehicle)	2.84	3.39	4.33	4.90	4.78	na	8.8%	6.3%	-2.5%	na	na	na
Netherlands	**8.80**	**9.69**	**10.32**	**11.17**	**11.54**	**11.77**	**3.2%**	**4.0%**	**3.3%**	**2.1%**	**3.3%**	**3.4%**
Transport Energy Intensity (toe/1985 Mecu)	51.96	53.64	52.38	54.75	56.37	56.12	0.2%	2.2%	2.9%	-0.4%	0.9%	1.7%
Road Consumption	7.47	7.52	8.04	8.40	8.59	8.71	1.5%	2.2%	2.2%	1.4%	1.7%	2.0%
Specific consumption in (toe/vehicle)	1.42	1.31	1.32	1.33	1.33	na	-1.4%	0.4%	0.1%	na	na	na
Portugal	**2.66**	**3.32**	**3.73**	**4.32**	**4.48**	**4.69**	**7.0%**	**7.5%**	**3.7%**	**4.7%**	**6.5%**	**5.8%**
Transport Energy Intensity (toe/1985 Mecu)	86.46	91.97	93.94	105.28	108.62	112.51	1.7%	5.9%	3.2%	3.6%	3.0%	4.6%
Road Consumption	2.06	2.65	3.03	3.57	3.76	3.95	8.0%	8.6%	5.3%	5.1%	7.5%	6.9%
Specific consumption in (toe/vehicle)	0.87	0.94	0.90	0.95	0.98	na	0.7%	2.7%	3.0%	na	na	na
Spain	**15.06**	**20.24**	**22.33**	**24.86**	**24.57**	**25.68**	**8.2%**	**5.5%**	**-1.2%**	**4.5%**	**6.1%**	**3.6%**
Transport Energy Intensity (toe/1985 Mecu)	68.98	80.87	82.09	88.80	88.72	90.93	3.5%	4.0%	-0.1%	2.5%	3.1%	2.6%
Road Consumption	11.81	15.81	17.68	19.72	19.45	20.21	8.4%	5.6%	-1.4%	3.9%	6.1%	3.4%
Specific consumption in (toe/vehicle)	1.08	1.22	1.21	1.29	1.25	na	2.4%	3.2%	-2.5%	na	na	na
Sweden	**6.43**	**7.47**	**7.23**	**7.43**	**7.30**	**7.56**	**2.4%**	**1.3%**	**-1.7%**	**3.5%**	**1.8%**	**1.1%**
Transport Energy Intensity (toe/1985 Mecu)	48.40	52.13	48.62	51.21	51.67	52.34	0.1%	2.6%	0.9%	1.3%	0.9%	1.9%
Road Consumption	5.37	6.21	6.07	6.26	6.16	6.40	2.5%	1.5%	-1.6%	3.9%	2.0%	1.3%
Specific consumption in (toe/vehicle)	1.31	1.49	1.43	1.44	1.40	na	1.8%	0.3%	-2.9%	na	na	na
United Kingdom	**35.80**	**41.72**	**45.45**	**45.59**	**46.75**	**46.95**	**4.9%**	**0.1%**	**2.5%**	**0.4%**	**3.1%**	**0.8%**
Transport Energy Intensity (toe/1985 Mecu)	59.20	60.08	63.81	63.63	65.96	63.82	1.5%	1.4%	0.5%	-3.2%	0.8%	0.0%
Road Consumption	28.62	33.90	36.31	36.32	36.90	37.05	4.9%	0.0%	1.6%	0.4%	2.9%	0.5%
Specific consumption in (toe/vehicle)	1.44	1.52	1.50	1.49	1.51	na	0.9%	-0.3%	0.8%	na	na	na
European Union	**201.83**	**233.55**	**252.98**	**264.72**	**270.83**	**272.21**	**4.6%**	**2.3%**	**2.3%**	**0.5%**	**3.4%**	**1.8%**
Transport Energy Intensity (toe/1985 Mecu)	54.1	56.9	58.2	60.0	61.6	60.2	1.5%	1.5%	2.7%	-2.2%	1.2%	0.8%
Road Consumption	169.7	196.6	211.5	221.4	226.3	226.4	4.5%	2.3%	2.2%	0.0%	3.3%	1.7%
Specific consumption in (toe/vehicle)	1.23	1.29	1.29	1.29	1.30	na	1.0%	-0.1%	0.6%	na	na	na

Prices for transport fuel (1990 ECU per toe) decreased significantly from 1985 to 1994, by a yearly average of 1.9% for gasoline and 2.9% for diesel despite significant tax increases in many Member States. Large price fluctuations existed by Member State and by fuel. In addition relative prices of gasoline versus diesel differed very sharply by country, inducing eventual distortions in competition in the road transport sector. In 1994, leaded gasoline prices ranged between 1325 and 777 ECU/toe; unleaded gasoline between 1256 and 683 ECU/toe and diesel prices ranged between 756 and 373 ECU/toe. The difference between leaded and unleaded gasoline in a same country ranged, during 1994, between 105 (Belgium) and 5 (Denmark) ECU/toe; with an average difference of 74 ECU/toe. Comparing leaded gasoline and diesel, the difference in price ranged between 600 and 210 ECU/toe, with an average value of 490 ECU/toe over all the Member States.

TRANSPORT : Recent evolution (1990-1994)

- **Total energy consumption increase is limited to 1.8% per year versus 4.5% per year on the period 1985-1990**
- **Energy intensity reaches its maximum in 1993. Starting point of a reverse trend ?**
- **Stable structure**
- **Diesel oil share reaches 45 % of the total road consumption in 1994.**

ENERGY PRICES TO TRANSPORT SECTOR IN CONSTANT 1990 ECU PER TOE (1)

1990 Ecu/toe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Austria											
Premium leaded gasoline	1258.7	900.6	978.6	942.1	na	na	-4.9%	-1.9%	na	na	na
Premium Unleaded gasoline (95)	na	870.4	960.6	863.5	831.6	845.8	na	-4.2%	-3.7%	1.7%	na
Diesel	831.1	584.8	600.9	516.9	503.6	480.0	-6.3%	-7.2%	-2.6%	-4.7%	-3.9%
Belgium											
Premium leaded gasoline	1278.8	899.2	1038.4	1022.7	1043.1	1045.8	-4.1%	-0.8%	2.0%	0.3%	-2.2%
Premium Unleaded gasoline (95)	na	na	975.1	926.8	927.0	940.9	na	-2.5%	0.0%	1.5%	na
Diesel	637.6	387.0	499.0	536.9	539.2	520.8	-4.8%	3.7%	0.4%	-3.4%	-2.2%
Denmark											
Premium leaded gasoline	1298.8	1226.2	1096.9	969.6	933.9	913.0	-3.3%	-6.0%	-3.7%	-2.2%	-3.8%
Premium Unleaded gasoline (98)	na	na	1021.9	902.3	918.2	908.1	na	-6.0%	1.8%	-1.1%	na
Diesel	522.6	277.6	289.4	423.0	460.5	438.0	-11.2%	20.9%	8.9%	-4.9%	-1.9%
Finland											
Premium leaded gasoline	1390.2	1070.6	1179.0	1197.5	1372.9	na	-3.2%	0.8%	14.6%	na	na
Premium Unleaded gasoline (95)	na	na	1087.8	1036.3	1205.5	1155.6	na	-2.4%	16.3%	-4.1%	na
Diesel	881.8	666.6	764.7	689.2	710.1	746.1	-2.8%	-5.1%	3.0%	5.1%	-1.8%
France											
Premium leaded gasoline	1291.6	1023.7	1059.6	985.6	999.2	1014.6	-3.9%	-3.6%	1.4%	1.5%	-2.6%
Premium Unleaded gasoline (95)	na	na	1035.2	936.5	938.6	952.3	na	-4.9%	0.2%	1.5%	na
Diesel	802.7	540.1	521.0	480.4	499.3	516.0	-8.3%	-4.0%	3.9%	3.4%	-4.6%
Germany											
Premium leaded gasoline	1066.5	746.9	885.9	983.3	939.1	1013.7	-3.6%	5.4%	-4.5%	7.9%	-0.6%
Premium Unleaded gasoline (95)	na	712.6	817.5	899.8	859.4	933.6	na	4.9%	-4.5%	8.6%	na
Diesel	739.4	478.0	512.6	511.3	488.0	504.4	-7.1%	-0.1%	-4.5%	3.4%	-4.2%
Greece											
Premium leaded gasoline	1038.6	718.0	783.2	768.3	866.9	777.2	-5.5%	-1.0%	12.8%	-10.4%	-3.2%
Premium Unleaded gasoline (95)	na	774.0	738.9	700.2	810.5	724.4	na	-2.7%	15.7%	-10.6%	na
Diesel	472.2	289.4	290.7	428.3	428.0	373.0	-9.2%	21.4%	-0.1%	-12.9%	-2.6%
Ireland											
Premium leaded gasoline	1395.7	1116.4	1125.7	991.9	984.0	966.7	-4.2%	-6.1%	-0.8%	-1.8%	-4.0%
Premium Unleaded gasoline (95)	na	na	1085.5	na	939.3	906.0	na	na	na	-3.5%	na
Diesel	833.5	686.1	680.4	637.8	776.1	756.2	-4.0%	-3.2%	21.7%	-2.6%	-1.1%
Italy											
Premium leaded gasoline	1653.8	1461.4	1400.8	1294.6	1313.4	1325.3	-3.3%	-3.9%	1.5%	0.9%	-2.4%
Premium Unleaded gasoline (95)	na	na	1381.9	1253.0	1244.4	1235.9	na	-4.8%	0.7%	-0.7%	na
Diesel	656.5	558.8	670.3	692.6	726.0	700.5	0.4%	1.7%	4.8%	-3.5%	0.7%
Luxembourg											
Premium leaded gasoline	961.4	735.4	740.1	728.7	769.7	775.1	-5.1%	-0.8%	5.6%	0.7%	-2.4%
Premium Unleaded gasoline (95)	na	na	705.0	625.5	666.2	683.0	na	-5.8%	6.5%	2.5%	na
Diesel	585.4	355.1	374.6	391.0	432.8	438.9	-8.5%	2.2%	10.7%	1.4%	-3.1%
Netherlands											
Premium leaded gasoline	1259.4	1063.4	1126.4	1172.2	1130.3	1139.5	-2.2%	2.0%	-3.6%	0.8%	-1.1%
Premium Unleaded gasoline (95)	1219.6	1025.9	1077.6	1078.9	1035.1	1045.5	-2.4%	0.1%	-4.1%	1.0%	-1.7%
Diesel	593.7	392.7	500.5	488.6	537.0	539.6	-3.4%	-1.2%	9.9%	0.5%	-1.1%
Portugal											
Premium leaded gasoline	1467.5	1196.6	1077.2	951.1	925.7	898.6	-6.0%	-6.0%	-2.7%	-2.9%	-5.3%
Premium Unleaded gasoline (95)	na	1196.6	1032.0	885.9	864.5	876.3	na	-7.3%	-2.4%	1.4%	na
Diesel	762.9	615.2	586.2	528.9	515.0	492.0	-5.1%	-5.0%	-2.6%	-4.5%	-4.8%
Spain											
Premium leaded gasoline	1349.6	918.9	877.6	912.6	944.4	940.0	-8.2%	2.0%	3.5%	-0.5%	-3.9%
Premium Unleaded gasoline (95)	na	na	na	893.7	915.9	912.4	na	na	2.5%	-0.4%	na
Diesel	789.3	535.1	517.8	538.8	560.3	536.5	-8.1%	2.0%	4.0%	-4.2%	-4.2%
Sweden											
Premium leaded gasoline	1149.5	958.8	1179.5	1079.5	1251.3	1197.0	0.5%	-4.3%	15.9%	-4.3%	0.5%
Premium Unleaded gasoline (95)	na	na	na	na	1195.0	1143.8	na	na	na	-4.3%	na
Diesel	664.6	498.7	634.2	557.7	580.7	669.6	0.9%	-6.2%	4.1%	15.3%	0.1%
United Kingdom											
Premium leaded gasoline	1166.8	896.2	911.6	929.7	984.9	1010.8	-4.8%	1.0%	5.9%	2.6%	-1.6%
Premium Unleaded gasoline (95)	na	na	852.8	852.9	899.3	916.7	na	0.0%	5.4%	1.9%	na
Diesel	834.8	599.2	603.8	598.7	644.4	658.9	-6.3%	-0.4%	7.6%	2.2%	-2.6%
European Union											
Premium leaded gasoline	1249.3	961.6	1012.7	1014.0	1032.5	1054.2	-4.1%	0.1%	1.8%	2.1%	-1.9%
Premium Unleaded gasoline (95)	na	na	966.6	944.9	957.7	980.6	-4.5%	-1.1%	1.3%	2.4%	-2.4%
Diesel	734.0	522.4	556.6	548.7	563.4	564.2	-5.4%	-0.7%	2.7%	0.1%	-2.9%

(1) Excluding refundable VAT only for diesel

Domestic and Tertiary

Energy consumption in the Domestic and Tertiary sectors remained quite constant (average yearly growth of 0.1%) over the period 1985-1994, but not in a steady way. In fact, energy consumption in this sector, although a function of population, number of households, private income and evolution of the services sector, is also highly dependent on weather conditions (space heating) and thus presents some marked fluctuations reflecting prevailing conditions. Apart from electricity, and due to severe limitations in the statistical difficulties, it is not possible to give an accurate picture of energy demand split between the domestic, the commercial and the service sectors.

In terms of **fuel mix**, solid fuel consumption dropped by 45% from 1985 to 1994, and represents, so far, no more than 3.3% of the total energy consumption. Oil demand dropped throughout the whole period on average by 2% per year but presented in-depth fluctuations related to weather conditions, and still represents, in 1994, 27.8% of the total demand. Gas and electricity consumption slowly increased their penetration in these sectors to attain, in 1994, respectively 32.5% and 25.5% of the total consumption (26.8% and 20.1% in 1985 respectively). Especially in the service sector the penetration of electricity is the strongest. Heat progressively increased its market share by 2.3% per year, and now represents a higher contribution than solid fuels in this sector (16.5 Mtoe in 1994 or 4.6% of the energy demand in this sector). Renewable energy remained stable over the decade, with the exception of a 6% increase in 1992. It represents, in 1994, 6.5% of the energy demand in the domestic and tertiary sector.

Measuring **intensity** gains in the domestic and industrial sectors is a very difficult task. If we take the **per capita consumption** as an indicator, its relative stability over the period suggests that increased standards of living and the growth of the service sector have made up for all the technological and other efficiency improvements introduced, mainly since 1980.

EUROPEAN UNION : DOMESTIC AND TERTIARY - FINAL ENERGY CONSUMPTION

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Total consumption	**352.93**	**348.80**	**347.12**	**358.71**	**368.21**	**357.30**	**-0.3%**	**1.7%**	**2.6%**	**-3.0%**	**0.1%**
Solids	41.21	35.19	33.06	15.81	14.51	11.77	-4.3%	-30.8%	-8.2%	-18.9%	-13.0%
Oil	119.57	110.60	99.17	104.93	103.61	99.43	-3.7%	2.9%	-1.3%	-4.0%	-2.0%
of which:											
Gas Diesel Oil	*96.23*	*89.67*	*79.55*	*85.24*	*84.22*	*80.37*	-3.7%	3.5%	-1.2%	-4.6%	-2.0%
Gas	94.52	97.92	101.96	115.63	122.34	116.13	1.5%	6.5%	5.8%	-5.1%	2.3%
Electricity	71.06	78.07	82.67	88.04	89.65	91.24	3.1%	3.2%	1.8%	1.8%	2.8%
of which :											
Residential	*40.43*	*42.51*	*44.46*	*47.96*	*49.03*	*49.18*	1.9%	3.9%	2.2%	0.3%	2.2%
Commercial & Public Services	*27.80*	*32.64*	*35.14*	*37.27*	*37.79*	*39.22*	4.8%	3.0%	1.4%	3.8%	3.9%
Heat	6.40	6.66	9.61	11.09	14.87	15.48	8.5%	7.4%	34.1%	4.1%	10.3%
Renewable (1)	20.17	20.35	20.65	23.21	23.23	23.25	0.5%	6.0%	0.1%	0.1%	1.6%
Total consumption per Capita (toe/inhabitant)	0.98	0.97	0.97	1.00	1.03	1.00	-0.3%	1.7%	2.6%	-3.0%	0.1%
Absolute Degree Days (Eur12)	2641	2268	2141	2537	2354	2142	-4.1%	8.9%	-7.2%	-9.0%	-2.3%
Difference to Average in %	7%	-8%	-13%	-4%	-4%	-13%	-	-	-	-	-

(1) Geothermal heat, solar heat, biomass

MAIN INDICATORS : DOMESTIC AND TERTIARY SECTORS

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85	94/90
							Annual % Change					
Austria	**8.42**	**8.04**	**8.52**	**9.24**	**9.74**	**9.44**	**0.3%**	**4.1%**	**5.4%**	**-3.0%**	**1.3%**	**2.6%**
Consumption per capita (toe/inhabitant)	1.11	1.06	1.10	1.17	1.22	1.18	0.2%	2.8%	4.4%	-3.5%	0.6%	1.6%
Absolute Heating Degree Days	na	na	na	na	na	na	-	-	-	-	-	-
Difference to Average in % (1)	na	na	na	na	na	na						
Belgium	**12.45**	**12.38**	**11.68**	**13.18**	**13.20**	**13.25**	**-1.3%**	**6.2%**	**0.2%**	**0.3%**	**0.7%**	**3.2%**
Consumption per capita (toe/inhabitant)	1.26	1.25	1.17	1.31	1.31	1.31	-1.5%	5.8%	0.2%	0.0%	0.4%	2.8%
Absolute Heating Degree Days	2982	2447	2277	2596	2556	2421	5.3%	6.8%	-1.5%	-5.3%	-2.3%	1.5%
Difference to Average in % (1)	8.3%	-11.1%	-17.3%	-5.7%	-7.2%	-12.1%						
Denmark	**8.08**	**7.19**	**7.24**	**7.13**	**7.42**	**7.25**	**-2.2%**	**-0.8%**	**4.1%**	**-2.2%**	**-1.2%**	**0.0%**
Consumption per capita (toe/inhabitant)	1.58	1.40	1.41	1.38	1.43	1.39	-2.3%	-1.1%	3.7%	-2.5%	-1.4%	-0.3%
Absolute Heating Degree Days	3322	2811	2664	3052	2855	2674	4.3%	7.0%	-6.5%	-6.3%	-2.4%	0.1%
Difference to Average in % (1)	11.8%	3.1%	-16.5%	6.9%	4.9%	-4.4%						
Finland	**7.03**	**7.54**	**7.56**	**7.84**	**7.66**	**7.82**	**1.5%**	**1.8%**	**-2.3%**	**2.1%**	**1.2%**	**0.8%**
Consumption per capita (toe/inhabitant)	1.43	1.52	1.52	1.55	1.51	1.54	1.1%	1.2%	-2.8%	1.7%	0.8%	0.3%
Absolute Heating Degree Days	na	na	na	na	na	na	-	-	-	-	-	-
Difference to Average in % (1)	na	na	na	na	na	na						
France	**58.79**	**56.18**	**56.63**	**64.30**	**63.88**	**62.00**	**-0.7%**	**6.6%**	**-0.6%**	**-2.9%**	**0.6%**	**2.3%**
Consumption per capita (toe/inhabitant)	1.06	1.00	1.00	1.12	1.11	1.07	-1.3%	6.0%	-1.1%	-3.4%	0.1%	1.8%
Absolute Heating Degree Days	2795	2306	2217	2475	2448	2166	4.5%	5.7%	-1.1%	-11.5%	-2.8%	-0.6%
Difference to Average in % (1)	9.0%	-10.1%	-13.6%	-3.5%	-4.6%	-15.6%						
Germany	**105.70**	**103.58**	**101.59**	**93.41**	**99.85**	**94.19**	**-0.8%**	**-4.1%**	**6.9%**	**-5.7%**	**-1.3%**	**-1.9%**
Consumption per capita (toe/inhabitant)	1.36	1.33	1.31	1.20	1.29	1.21	0.8%	-4.1%	6.9%	-5.7%	-1.3%	-1.9%
Absolute Heating Degree Days	3322	2811	2664	3052	2855	2674	4.3%	7.0%	-6.5%	-6.3%	-2.4%	0.1%
Difference to Average in % (1)	6.4%	-10.0%	-14.7%	-2.3%	-8.6%	-14.4%						
Greece	**4.66**	**5.03**	**5.36**	**5.57**	**5.62**	**5.75**	**2.8%**	**2.0%**	**0.9%**	**2.2%**	**2.4%**	**1.8%**
Consumption per capita (toe/inhabitant)	0.47	0.50	0.53	0.54	0.54	0.55	2.4%	1.2%	0.4%	1.8%	1.8%	1.1%
Absolute Heating Degree Days	na	1574	1222	1477	1470	1286	-	9.9%	-0.5%	-12.5%	-	1.3%
Difference to Average in % (1)	na	7.7%	-16.4%	1.1%	0.6%	-12.0%						
Ireland	**2.75**	**3.07**	**3.15**	**3.18**	**3.23**	**3.41**	**2.8%**	**0.4%**	**1.7%**	**5.5%**	**2.4%**	**2.0%**
Consumption per capita (toe/inhabitant)	0.78	0.87	0.90	0.90	0.91	0.96	3.0%	0.2%	1.3%	5.3%	2.3%	1.5%
Absolute Heating Degree Days	2632	2396	2281	2459	2522	2408	2.8%	3.8%	2.6%	-4.5%	-1.0%	1.4%
Difference to Average in % (1)	6.1%	-3.4%	-8.1%	0.9%	1.7%	-3.0%						
Italy	**36.22**	**37.75**	**39.08**	**40.49**	**40.96**	**38.03**	**1.5%**	**1.8%**	**1.2%**	**-7.2%**	**0.5%**	**-0.7%**
Consumption per capita (toe/inhabitant)	0.64	0.67	0.69	0.71	0.72	0.66	1.5%	1.7%	0.8%	-7.4%	0.4%	-0.9%
Absolute Heating Degree Days	2042	1832	1749	1670	1771	1509	3.1%	2.3%	6.0%	-14.8%	-3.3%	-3.6%
Difference to Average in % (1)	7.8%	3.3%	-7.2%	-11.8%	-6.5%	-20.3%						
Luxembourg	**0.59**	**0.61**	**0.58**	**0.67**	**0.68**	**0.66**	**-0.3%**	**7.3%**	**0.9%**	**-2.4%**	**1.3%**	**3.2%**
Consumption per capita (toe/inhabitant)	1.61	1.63	1.53	1.71	1.70	1.64	-1.1%	5.8%	-0.4%	-3.8%	0.2%	1.7%
Absolute Heating Degree Days	3442	2880	2721	2896	2932	2753	4.6%	3.2%	1.2%	-6.1%	-2.5%	0.3%
Difference to Average in % (1)	8.7%	-9.0%	-14.1%	-8.5%	-7.4%	-13.0%						
Netherlands	**20.07**	**19.34**	**19.57**	**21.22**	**21.79**	**21.62**	**-0.5%**	**4.1%**	**2.7%**	**-0.8%**	**0.8%**	**2.5%**
Consumption per capita (toe/inhabitant)	1.39	1.31	1.31	1.40	1.43	1.41	-1.1%	3.3%	2.0%	-1.4%	0.2%	1.8%
Absolute Heating Degree Days	3072	2462	2314	2588	2675	2551	5.5%	5.8%	3.4%	-4.6%	-2.0%	2.5%
Difference to Average in % (1)	8.1%	-13.4%	-18.6%	-9.0%	-5.9%	-10.3%						
Portugal	**3.19**	**3.46**	**3.66**	**3.91**	**3.99**	**4.08**	**2.8%**	**3.4%**	**2.1%**	**2.3%**	**2.8%**	**2.8%**
Consumption per capita (toe/inhabitant)	0.32	0.35	0.37	0.40	0.40	0.41	3.0%	3.6%	1.9%	2.0%	2.9%	2.8%
Absolute Heating Degree Days	na	1289	1229	1295	1445	1162	-	2.6%	11.6%	-19.6%	-	-1.4%
Difference to Average in % (1)	na	-2.1%	-6.7%	-1.7%	9.7%	-11.8%						
Spain	**13.62**	**13.81**	**14.45**	**15.64**	**15.45**	**16.75**	**1.2%**	**4.1%**	**-1.3%**	**8.5%**	**2.3%**	**3.8%**
Consumption per capita (toe/inhabitant)	0.35	0.36	0.37	0.40	0.40	0.43	1.0%	3.8%	-1.5%	8.3%	2.1%	3.6%
Absolute Heating Degree Days	na	1516	1477	1601	1728	1426	-	4.1%	7.9%	-17.5%	-	-0.9%
Difference to Average in % (1)	na	-4.3%	-6.8%	1.1%	9.1%	-10.0%						
Sweden	**12.91**	**12.16**	**11.39**	**11.89**	**13.15**	**13.44**	**-2.5%**	**2.2%**	**10.6%**	**2.2%**	**0.4%**	**4.2%**
Consumption per capita (toe/inhabitant)	1.55	1.44	1.33	1.37	1.51	1.53	-3.0%	1.5%	10.0%	1.5%	-0.1%	3.6%
Absolute Heating Degree Days	na	na	na	na	na	na	-	-	-	-	-	-
Difference to Average in % (1)	na	na	na	na	na	na						
United Kingdom	**59.01**	**59.27**	**56.63**	**61.60**	**62.24**	**60.23**	**-0.8%**	**4.3%**	**1.0%**	**-3.2%**	**0.2%**	**1.6%**
Consumption per capita (toe/inhabitant)	1.04	1.04	0.98	1.06	1.07	1.03	-1.1%	3.9%	0.7%	-3.5%	-0.1%	1.2%
Absolute Heating Degree Days	2852	2551	2367	2619	2663	2530	3.7%	5.2%	1.7%	-5.0%	-1.2%	1.7%
Difference to Average in % (1)	3.4%	-7.5%	-14.1%	-5.0%	-3.4%	-8.2%						
European Union	**352.93**	**348.80**	**347.12**	**358.71**	**368.21**	**357.30**	**-0.3%**	**1.7%**	**2.6%**	**-3.0%**	**0.1%**	**0.7%**
Consumption per capita (toe/inhabitant)	0.98	0.97	0.97	1.00	1.03	1.00	0.3%	1.7%	2.6%	-3.0%	0.1%	0.7%
Absolute Heating Degree Days (Eur 12)	2661	2268	2141	2357	2354	2142	-4.1%	4.9%	-2.4%	-3.3%	-2.3%	-4.5%
Difference to Average in % (1)	7.2%	-7.9%	-13.1%	-4.3%	-4.4%	-13.1%						

"(1) + means colder; - means warmer."

The European Union can be split into 4 categories of Member States, when looking at the trend over the period 1990-94: the fast growers in energy needs for the domestic and tertiary sectors with an annual average growth of more than 3% (Belgium, Luxembourg, Spain and Sweden); the medium growers with rates between 1% and 3% per year (Austria, France, Greece, Ireland, the Netherlands, Portugal, and the UK), the low growers with rates below 1% per year (Denmark, and Finland). Finally only Italy (0.7%) and Germany (-1.9%) showed reduction in the total domestic and tertiary sector consumption over the period 1990 to 1994.

CLIMATIC CONDITIONS : VARIATION TO AVERAGE (% DEGREE-DAY VARIATIONS)

	1985	1988	1990	1991	1992	1993	1994
Austria	na	na	na	na	na	na	na
Belgium	8.3%	-11.1%	-17.3%	0.4%	-5.7%	-7.2%	-12.1%
Denmark	11.8%	-3.1%	-16.5%	-2.6%	-6.9%	-4.9%	-4.4%
Finland	na	na	na	na	na	na	na
France	9.0%	-10.1%	-13.6%	5.3%	-3.5%	-4.6%	-15.6%
Germany	6.4%	-10.0%	-14.7%	1.6%	-2.3%	-8.6%	-14.4%
Greece	na	7.7%	-16.4%	7.1%	1.1%	0.6%	-12.0%
Ireland	6.1%	-3.4%	-8.1%	1.4%	0.9%	1.7%	-3.0%
Italy	7.8%	-3.3%	-7.7%	9.4%	-11.8%	-6.5%	-20.3%
Luxembourg	8.7%	-9.0%	-14.1%	0.7%	-8.5%	-7.4%	-13.0%
Netherlands	8.1%	-13.4%	-18.6%	0.2%	-9.0%	-5.9%	-10.3%
Portugal	na	-2.1%	-6.7%	11.3%	-1.7%	9.7%	-11.6%
Spain	na	-4.3%	-6.8%	12.4%	1.1%	9.1%	-10.0%
Sweden	na	na	na	na	na	na	na
United Kingdom	3.4%	-7.5%	-14.1%	-1.8%	-5.0%	-3.4%	-8.2%
EUROPEAN UNION (Eur 12)	7.2%	-7.9%	-13.1%	3.5%	-4.3%	-4.4%	-13.1%

Note : + means colder, and - means warmer.

For Greece, Portugal and Spain the increase in energy consumption for the domestic and tertiary sector mainly reflects an improvement in living standards, given that energy needs for space heating are not very significant. On the contrary, the repetition of warm summers induces some requirements for air conditioning , in particular in Greece. In the case of all other Member States the analysis is less straightforward. In fact, in most of the latter Member States, energy consumption for space heating is quite significant and thus the evolution depends to a large extent on weather conditions. For Germany, the main explanation of this reduction of energy consumption consists in technology dissemination and renovation in the new Landers that compensate largely the improvement of life standard.

The **prices for domestic energy**, expressed in 1990 ECU per toe, show a global decrease over the period 1985-1994. The decrease is rather marginal for electricity: -0.7% per year for the European Union as a whole with extremes going from +2.1% in Sweden to -5.3% in the Netherlands. The most important price decrease is observable on heating oil: -6.1% as an average over the European Union where extremes comprise of between -10.5% in Belgium and +1.5% in Italy. The average decrease of natural gas prices is also significant: -4.7% at the European level, with a maximum of -8.1% in Austria and a minimum of -2.7% in Denmark.

The 1994 **cost of heating oil** showed large discrepancies in Member States: 193 ECU/toe in Belgium compared to 817 in Italy, for an European average price of 347 ECU/toe. Natural gas prices ranged between 142 ECU/toe and 478 ECU/toe, presenting a min/max ratio of about 3.4 versus 4.2 for heating oil. Steam coal prices ranged around 270 to 450 ECU/toe.

TERTIARY-DOMESTIC : Recent evolution (1990-1994)

- **Long term stability in energy consumption rhythmed by weather conditions**
- **Contribution of solids declining from 9.5% to 3.3%**
- **Energies distributed by networks reinforce their contribution (natural gas, electricity and heat) from 56% in 1990 to 62.3% in 1994**
- **the stability of renewable sources must be related to the lack of pertinent statistical data at national levels**

ENERGY PRICES TO DOMESTIC CONSUMERS IN CONSTANT 1990 ECU PER TOE (1)

		1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
								Annual % Change				
Austria	Steam Coal	572.0	448.9	417.6	387.5	369.4	353.3	-6.1%	-3.7%	-4.7%	-4.3%	-5.2%
	Heating Oil	660.3	357.0	413.9	349.3	333.3	312.5	-8.9%	-8.1%	-4.6%	-6.2%	-8.0%
	Natural gas	597.5	333.1	308.5	297.5	286.6	279.9	-12.4%	-1.8%	-3.7%	-2.3%	-8.1%
	Electricity	1569.0	1526.7	1425.4	1408.4	1373.7	1334.2	-1.9%	-0.6%	-2.5%	-2.9%	-1.8%
Belgium	Steam Coal	395.2	383.7	338.6	354.6	344.3	328.2	-3.0%	2.3%	-2.9%	-4.7%	-2.0%
	Heating Oil	522.2	203.9	244.6	202.9	213.2	193.3	-14.1%	-8.9%	5.1%	-9.3%	-10.5%
	Natural gas	516.2	319.5	327.4	308.6	303.8	308.7	-8.7%	-2.9%	-1.6%	1.6%	-5.6%
	Electricity	1832.1	1594.7	1560.1	1471.1	1458.8	1449.3	-3.2%	-2.9%	-0.8%	-0.7%	-2.6%
Denmark	Steam Coal	385.1	412.5	439.2	436.3	432.3	423.9	2.7%	-0.3%	-0.9%	-1.9%	1.1%
	Heating Oil	686.4	647.3	657.5	605.4	610.7	581.7	-0.9%	-4.0%	0.9%	-4.8%	-1.8%
	Natural gas	609.6	576.2	529.9	493.2	499.8	477.7	-2.8%	-3.5%	1.4%	-4.4%	-2.7%
	Electricity	1635.3	1502.9	1506.0	1601.5	1629.7	1573.3	-1.6%	3.1%	1.8%	-3.5%	-0.4%
Finland	Heating Oil	531.1	258.3	336.9	320.9	380.6	341.0	-8.7%	-2.4%	18.6%	-10.4%	-4.8%
	Natural gas	270.8	134.8	139.2	133.8	138.2	142.2	-12.5%	-2.0%	3.3%	2.9%	-6.9%
	Electricity	988.3	973.3	942.0	941.0	1005.4	992.5	-1.0%	-0.1%	6.8%	-1.3%	0.0%
France	Steam Coal	654.1	640.3	467.0	462.3	453.0	445.2	-6.5%	-0.5%	-2.0%	-1.7%	-4.2%
	Heating Oil	608.7	339.2	382.2	336.9	337.3	323.2	-8.9%	-6.1%	0.1%	-4.2%	-6.8%
	Natural gas	565.5	398.9	373.7	362.4	346.7	336.4	-8.0%	-1.5%	-4.3%	-3.0%	-5.6%
	Electricity	1527.9	1401.4	1374.3	1292.6	1292.9	1276.7	-2.1%	-3.0%	0.0%	-1.3%	-2.0%
Germany	Steam Coal	583.2	571.3	543.6	466.5	462.0	453.0	-1.4%	-7.4%	-1.0%	-1.9%	-2.8%
	Heating Oil	496.6	198.2	281.3	244.2	238.4	214.4	-10.7%	-6.8%	-2.4%	-10.1%	-8.9%
	Natural gas	460.5	267.8	312.3	322.0	305.9	299.0	-7.5%	1.5%	-5.0%	-2.2%	-4.7%
	Electricity	1460.2	1557.2	1500.0	1414.5	1413.6	1420.1	0.5%	-2.9%	-0.1%	0.5%	-0.3%
Greece	Heating Oil	489.3	317.9	324.2	405.2	379.8	360.5	-7.9%	11.8%	-6.3%	-5.1%	-3.3%
	Electricity	1103.4	1087.8	1081.6	970.1	853.9	na	-0.4%	-5.3%	-12.0%	na	na
Ireland	Steam Coal	300.8	259.9	274.3	326.7	332.2	321.9	-1.8%	9.1%	1.7%	-3.1%	0.8%
	Heating Oil	543.6	393.9	395.9	358.9	363.6	341.6	-6.1%	-4.8%	1.3%	-6.1%	-5.0%
	Natural gas	620.2	407.9	379.3	363.7	356.9	348.8	-9.4%	-2.1%	-1.9%	-2.2%	-6.2%
	Electricity	1493.0	1316.0	1222.3	1174.7	1158.5	1132.4	-3.9%	-2.0%	-1.4%	-2.2%	-3.0%
Italy	Heating Oil	714.7	589.3	745.2	814.9	842.2	816.7	0.8%	4.6%	3.3%	-3.0%	1.5%
	Natural gas	529.5	426.3	505.6	575.0	562.9	na	-0.9%	6.6%	-2.1%	na	na
	Electricity	1692.4	1430.1	1435.7	1532.6	1502.0	1607.9	-3.2%	3.3%	-2.0%	7.0%	-0.6%
Luxembourg	Steam Coal	409.4	419.7	392.2	377.2	384.7	373.0	-0.9%	-1.9%	2.0%	-3.1%	-1.0%
	Heating Oil	471.8	231.8	254.7	212.0	224.1	203.8	-11.6%	-8.8%	5.7%	-9.1%	-8.9%
	Natural gas	355.3	186.1	194.5	191.1	184.3	183.2	-11.3%	-0.9%	-3.6%	-0.6%	-7.1%
	Electricity	1189.1	1163.6	1134.8	1015.3	985.1	981.0	-0.9%	-5.4%	-3.0%	-0.4%	-2.1%
Netherlands	Heating Oil	523.2	296.4	353.4	324.0	307.1	246.2	-7.5%	-4.3%	-5.2%	-19.8%	-8.0%
	Natural gas	366.7	248.9	264.2	272.2	223.0	223.4	-6.3%	1.5%	-18.1%	0.2%	-5.4%
	Electricity	1522.3	1080.2	1072.8	984.0	938.0	935.1	-6.8%	-4.2%	-4.7%	-0.3%	-5.3%
Portugal	Heating Oil	762.9	638.9	608.7	559.3	540.8	516.6	-4.4%	-4.1%	-3.3%	-4.5%	-4.2%
	Electricity	1431.7	1455.7	1346.8	1317.1	1311.2	1284.2	-1.2%	-1.1%	-0.4%	-2.1%	-1.2%
Spain	Heating Oil	576.3	352.1	364.1	347.0	379.2	323.2	-8.8%	-2.4%	9.3%	-14.8%	-6.2%
	Natural gas	745.3	496.1	482.4	485.4	464.1	456.0	-8.3%	0.3%	-4.4%	-1.7%	-5.3%
	Electricity	1794.7	1739.1	1739.9	1730.6	1723.0	1705.5	-0.6%	-0.3%	-0.4%	-1.0%	-0.6%
Sweden	Heating Oil	587.7	382.5	559.4	471.1	540.0	518.6	-1.0%	-8.2%	14.6%	-4.0%	-1.4%
	Electricity	708.4	689.1	804.1	849.0	843.4	852.0	2.6%	2.8%	-0.7%	1.0%	2.1%
United Kingdom	Steam Coal	313.7	289.4	264.7	261.9	259.0	266.9	-3.3%	-0.5%	-1.1%	3.0%	-1.8%
	Heating Oil	492.7	219.9	250.7	194.8	206.1	198.7	-12.6%	-11.8%	5.8%	-3.5%	-9.6%
	Natural gas	302.6	278.5	259.5	250.4	236.3	230.8	-3.0%	-1.8%	-5.6%	-2.3%	-3.0%
	Electricity	1133.3	1045.4	1086.1	1116.6	1100.9	1141.3	-0.8%	1.4%	-1.4%	3.7%	0.1%
European Union	Steam Coal	394.0	366.0	331.3	327.3	329.9	321.0	-3.4%	-0.6%	0.8%	-2.7%	-2.2%
	Heating Oil	559.5	309.5	381.3	344.5	346.9	317.2	-7.4%	-4.9%	0.7%	-8.6%	-6.1%
	Natural gas	424.4	318.1	330.5	340.1	322.5	274.2(2)	-4.9%	1.4%	-5.2%	-15.0%	-4.7%
	Electricity	1273.0	1205.0	1199.4	1181.8	1171.0	1193.6	-1.2%	-0.7%	-0.9%	1.9%	-0.7%

(1) Including all taxes
(2) Excluding Italy

Electricity Sector

Electricity consumption since 1985 reports a steady increase of 2.1% per year on average. However, in the 90s a slower growth (1.4%) has been registered compared to the sustained rate in the second half of the 80s (2.7%). Due to the economic slow-down of 1993 electricity demand growth decreased to only 0.25% in 1993. In 1994, the demand growth retrieved already a level close to 2.0% Apart from the fact that the European Union is a slight net importer of electricity, mainly from Switzerland and Norway (0.9% of total needs in 1994, decreasing from 1.5% in 1990), it is self-sufficient in terms of satisfying demand.

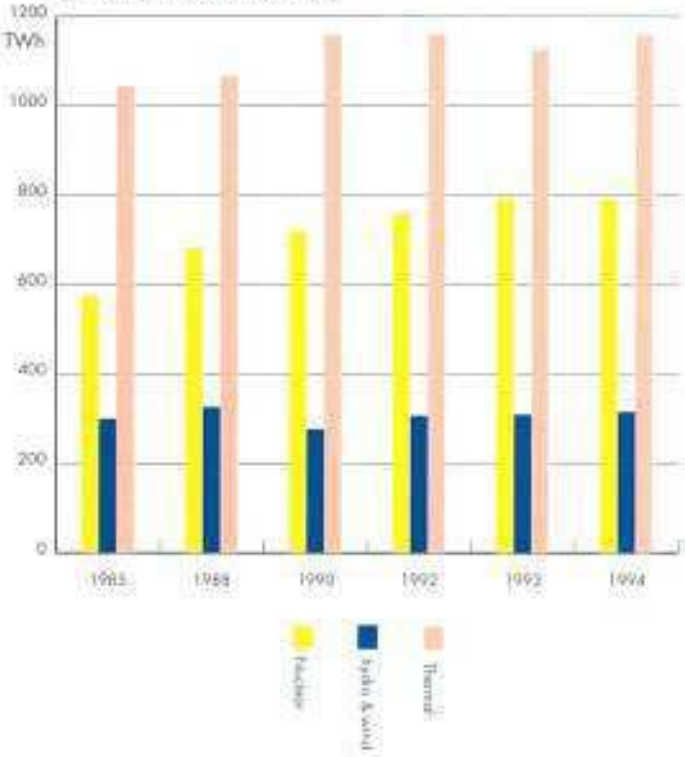
By Member States, four categories can be considered with regard to the profile of electricity consumption growth over the period 1985-1994. The first category groups countries with an average growth below 1%, namely Germany with only 0.3% and Sweden (0.9%). In the second category, with a growth rate between 2% and 2.4%, we find the United Kingdom (2%), Austria and Denmark (2.3%) and Luxembourg (2.4%). The third category with a growth between 3.2% and 3.6% brings together France, Italy, the Netherlands and Spain (3.2%), Finland (3.3%), Belgium and Greece (3.6%). Finally, with a growth rate higher than 4%, Ireland (4.2%) and Portugal (5.0%). A slowing down in the long term trend is observed for all countries except Luxembourg (+0.7%), Greece (+0.3%) and Portugal (+0.2%).

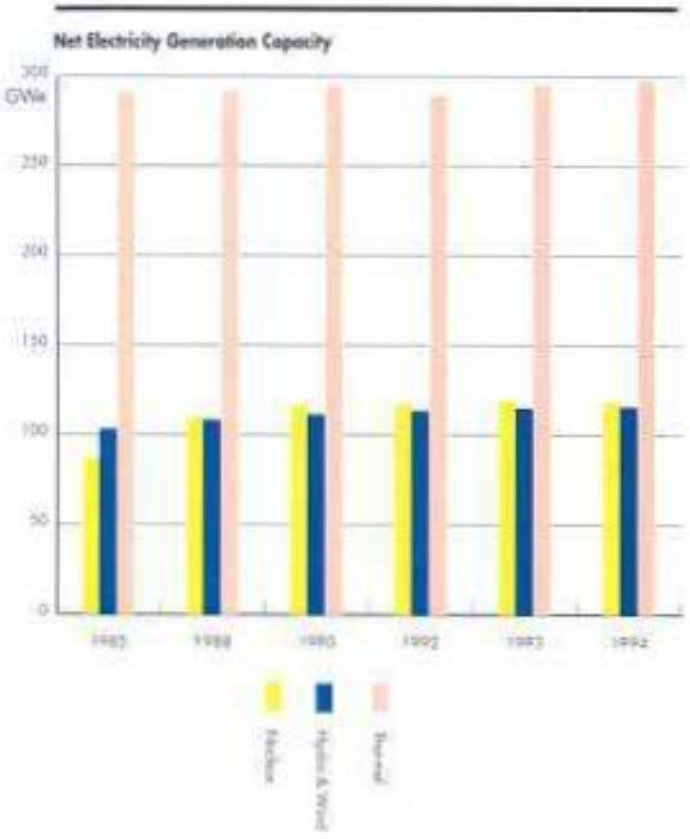
Electricity generation in the European Union reached 2267 TWh in 1994 showing an average increase of 1.9% since 1985. Despite a very limited increase in generating capacity since 1990, nuclear production showed the fastest growth (3.6% a year since 1985) reaching about 35% of the total electricity production in 1994 versus only 30% in 1985. Thermal electricity showed a slower growth of 1.2% per year over the same time period but still represented 51% of the total (54% in 1985). Hydroelectricity and wind generated together the remaining 14% during 1994, with an average growth by only 0.6% per year since 1985.

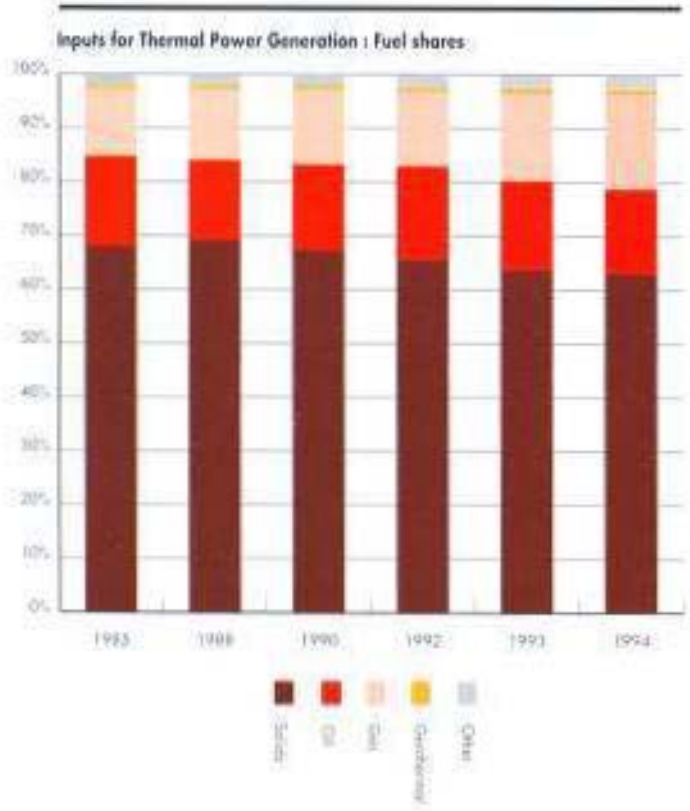
In 1994, the **installed capacity** for electricity generation ranges around 535 GWe of which 55.5% are of thermal nature, the complement being supported by nuclear power stations (22%) and hydro and wind based power stations (23%). However these developments were not homogeneous throughout the European Union. While hydropower generation is concentrated in France (22% of total European Union hydropower capacity in 1994), Italy (17%), Spain and Sweden (14% both), Austria (10%) and Germany (8%) with the remaining 15% dispersed in the 9 other Member States, nuclear generation only exists in France (49% of total European Union nuclear capacity in 1994), Germany (19%), the United Kingdom (11%), Sweden (8%), Spain (6%), Belgium (5%), Finland (2%) and the Netherlands (below 1%). So, the contribution of nuclear energy to electricity generation is largely dispersed, ranging from 0% to 75% in France during the year 1994.

The beginning of the 90s has been marked by the development of combined cycle units which represented a total capacity of about 14 GWe in 1994 with more than 8 GWe for the United Kingdom. Combined cycle accounted for 50% of all the investments in thermal power stations and for 30% of total investment on the period 1990-94.

Net Electricity Production by Source







There was a general improvement in the average load factor from 45% in 1985 to 49% in 1994. But the major improvement occurred during the second half of the 80s mainly due to a better utilisation of the nuclear capacities, the load factor of hydropower being largely affected by the weather conditions, in particular since 1990.

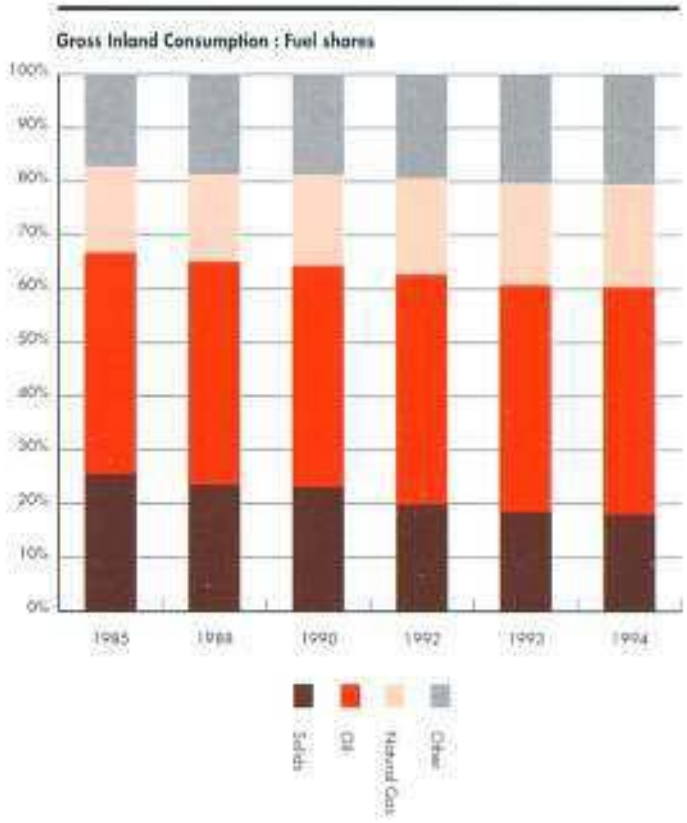
Concerning the **fuel mix** used for feeding the thermal power stations, solid fuels remain the most used (63% of total in 1994 from 68% in 1985) even if their share decreased slightly by 0.3% a year on average over the last decade. Oil and gas count for 15.5% and 17.7% respectively. Although the share of oil was perfectly stable over the period 1985-1994, the share of gas increased from 12% in 1985 to 18% in 1994. This gives a relative growth of about 50% over the relevant period. The last two years showed a significant increase in gas power stations capacity (combined cycles) in substitution of coal and oil based units. The yearly increase in gas installed capacity was 11.6% and 9.9% respectively in 1993 and 1994. Although the participation of other sources (mainly urban and industrial wastes) is small (2.7% of total inputs to thermal power stations in 1994), their consumption, rather constant over the period 1985-1990, increased by more than 38% between 1992 and 1994.

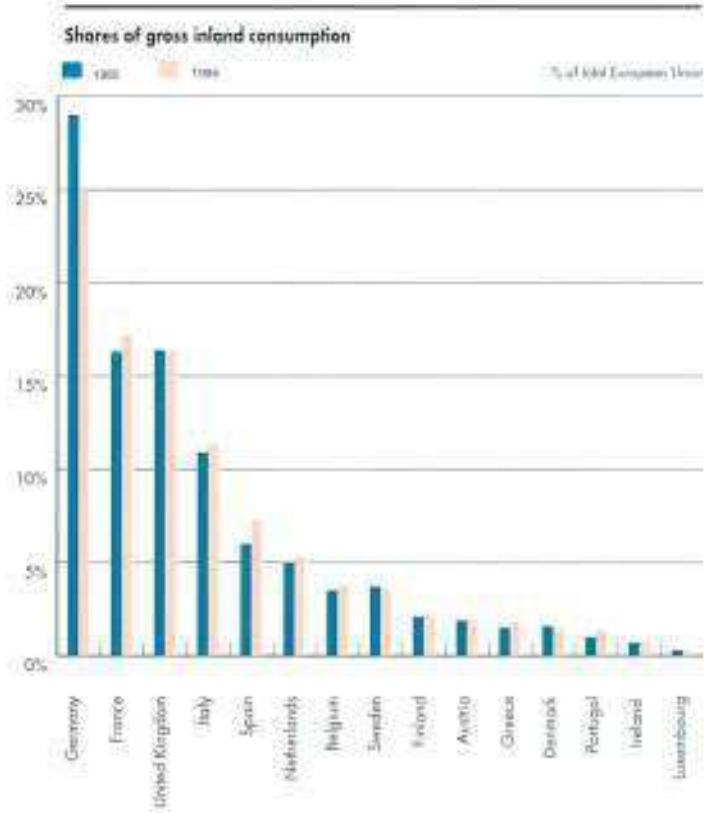
As a consequence of all these modifications in electricity production, the **average efficiency** (considering only the electrical output) of European power stations increased from 36.1% in 1985 to 38.2% in 1994. At Member State level the picture is different. Indeed, the average thermal efficiency depends to a very large extent not only on the type of technology (combined cycle) being used but also on the size of the capacity and on the type of load (base-load, cycling or peak) that the thermal units are satisfying. France had the highest efficiency (42.8%, fossil fuels being only used for base and intermediate load, hydro covering peak demand), while Luxembourg had the lowest (24.6%, mainly industrial combined heat and power production). Five Member States already presented an efficiency above 40% in 1994: Finland, France, Italy, Netherlands and the United Kingdom.

Gross Inland Consumption

As a result of developments in final energy demand and inputs for electricity generation, the **Energy gross inland consumption** of the European Union (1338 Mtoe in 1994) increased slightly by 0.8% over the period 1985-1994, notwithstanding a decline by 0.6% in 1992 and by 0.2% in 1993. The figures show a decrease in use of solid fuel (18.1% of total in 1994 compared to 25.6% in 1985 and 23.2% in 1990), a slight increase in oil (42.2% in 1994 from 41.2% in 1985 and 1990) and recent growth of gas (19% in 1994 from 16% in 1985 and 16.8% in 1990). The other sources of energy , including nuclear, hydro, wind, net imports of electricity and other energy sources increased regularly from 17.8% of total gross inland consumption in 1985 to 20.6% in 1995.

Member States can be separated into different categories, when looking at their energy consumption over the period 1985-1994. The fast growers in primary energy demand with annual rates above 3% over the period are Portugal (+4.9%) and Spain (+3.1%). Those whose demand grew annually between 2% and 3%: Greece (2.8%), Ireland (2.2%) and Luxembourg (2.1%). Those with slow growth rates between 1% and 2%: Finland and Netherlands (1.6%), Belgium (1.5%), France and Italy (1.4%), Austria (1%). Those with very modest growth, below 1%: Denmark (0.4%), Sweden (0.5%) and the United Kingdom (0.8%). And finally, the special case of Germany (-0.8%) where the gross inland consumption has been stable over the period 85-90 before a strong decrease by about -1.8% over the period 90-94, with the major evolution between 1990 and 1992 (-3.0%) as a result of the reunification. Data also show that most of the growth was concentrated on southern European Member States, where economic growth has been faster than the European Union average, especially in the case of Portugal, Spain and Greece.

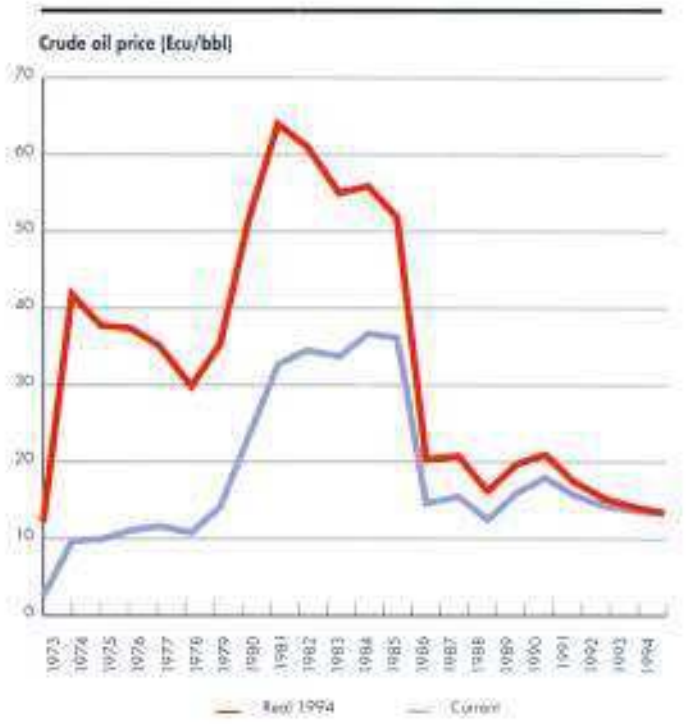


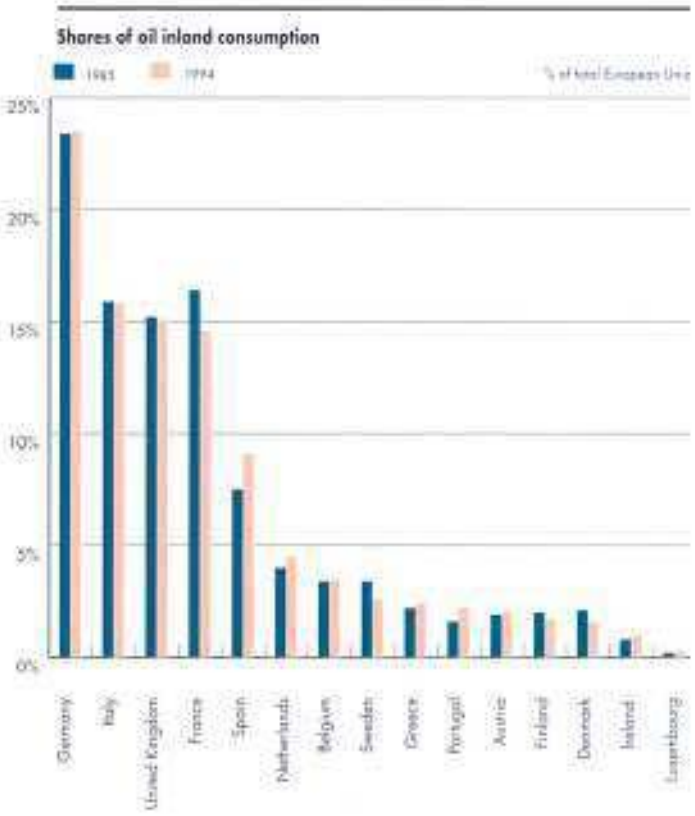


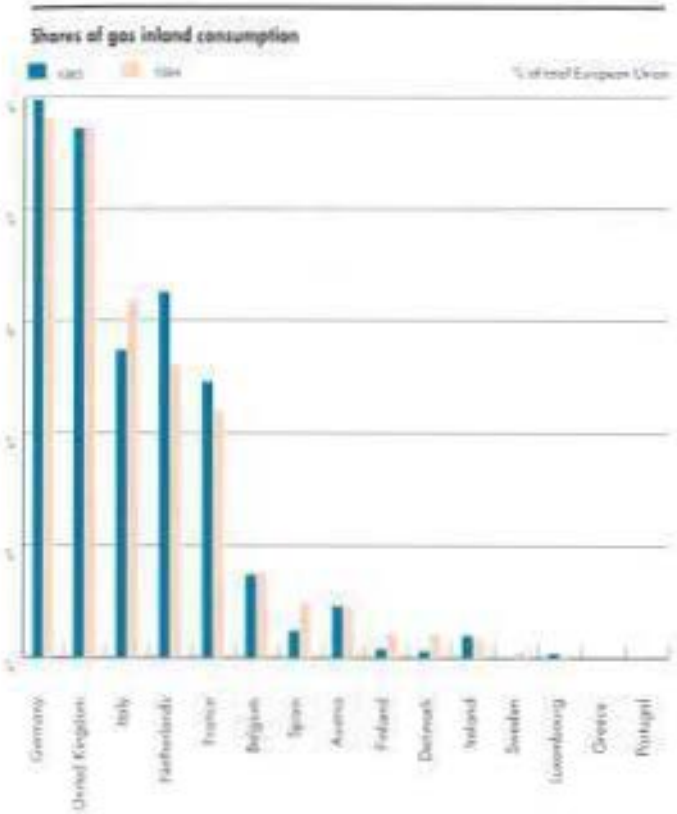
GROSS INLAND CONSUMPTION

Mtoe	1985	1990	1992	1994	90/85	92/90	94/92	94/85	1985	1990	1992	1994
					Annual % change				Share in %			
Austria	**23.8**	**25.8**	**25.7**	**26.1**	**1.6%**	**-0.1%**	**0.7%**	**1.0%**	**1.9%**	**2.0%**	**1.9%**	**1.9%**
Solids	4.0	4.2	3.3	2.9	1.0%	-10.5%	-6.0%	-3.2%	1.2%	1.4%	1.2%	1.2%
Oil	9.6	10.5	10.9	11.2	1.8%	1.9%	1.1%	1.7%	1.9%	1.9%	1.9%	2.0%
Natural Gas	4.6	5.2	5.4	5.8	2.6%	1.4%	4.2%	2.7%	2.3%	2.4%	2.3%	2.3%
Belgium	**43.8**	**47.1**	**50.1**	**50.3**	**1.4%**	**3.1%**	**0.3%**	**1.5%**	**3.5%**	**3.6%**	**3.8%**	**3.8%**
Solids	9.9	10.2	9.6	9.3	0.7%	-3.2%	-1.5%	-0.7%	3.1%	3.3%	3.6%	3.8%
Oil	17.3	17.7	20.1	20.0	0.4%	6.4%	-0.3%	1.6%	3.4%	3.3%	3.5%	3.5%
Natural Gas	7.3	8.2	9.0	9.7	2.2%	5.3%	3.4%	3.1%	3.7%	3.7%	3.8%	3.8%
Denmark	**19.5**	**18.2**	**19.3**	**20.2**	**-1.4%**	**3.0%**	**2.2%**	**0.4%**	**1.6%**	**1.4%**	**1.4%**	**1.5%**
Solids	7.4	6.1	6.8	7.6	-3.7%	5.9%	5.5%	0.4%	2.3%	2.0%	2.6%	3.1%
Oil	10.7	8.6	8.7	9.0	-4.3%	0.8%	1.5%	-1.9%	2.1%	1.6%	1.5%	1.6%
Natural Gas	0.6	1.8	2.1	2.7	25.8%	9.2%	12.4%	18.9%	0.3%	0.8%	0.9%	1.1%
Finland	**26.2**	**27.9**	**28.0**	**30.4**	**1.2%**	**0.2%**	**4.0%**	**1.6%**	**2.1%**	**2.1%**	**2.1%**	**2.3%**
Solids	5.0	5.1	5.3	6.5	0.4%	2.5%	10.4%	3.0%	1.6%	1.7%	2.0%	2.7%
Oil	10.2	9.9	9.4	9.9	-0.6%	-2.7%	2.5%	-0.4%	2.0%	1.8%	1.7%	1.7%
Natural Gas	0.8	2.3	2.5	2.8	23.1%	4.7%	7.2%	15.1%	0.4%	1.0%	1.0%	1.1%
France	**202.5**	**221.8**	**232.8**	**230.5**	**1.8%**	**2.5%**	**-0.5%**	**1.4%**	**16.3%**	**16.8%**	**17.5%**	**17.2%**
Solids	24.4	20.0	18.8	14.4	-3.9%	-3.0%	-12.6%	-5.7%	7.7%	6.5%	7.0%	5.9%
Oil	83.9	87.7	89.3	82.5	0.9%	0.9%	-3.9%	-0.2%	16.4%	16.1%	15.7%	14.6%
Natural Gas	24.3	24.9	28.1	27.8	0.5%	6.2%	-0.4%	1.5%	12.3%	11.2%	11.8%	11.0%
Germany	**359.3**	**359.0**	**337.7**	**333.9**	**0.0%**	**-3.0%**	**-0.6%**	**-0.8%**	**29.0%**	**27.2%**	**25.3%**	**25.0%**
Solids	149.6	137.0	104.7	96.6	-1.7%	-12.6%	-4.0%	-4.7%	67.1%	44.7%	39.2%	39.7%
Oil	119.6	123.5	131.8	133.1	0.7%	3.3%	0.5%	1.2%	23.4%	22.7%	23.1%	23.5%
Natural Gas	49.3	55.0	56.8	61.2	2.2%	1.6%	3.8%	2.4%	24.9%	24.7%	23.9%	24.1%
Greece	**18.9**	**22.8**	**23.6**	**24.1**	**3.8%**	**1.7%**	**1.2%**	**2.8%**	**1.5%**	**1.7%**	**1.8%**	**1.8%**
Solids	6.1	8.1	8.2	8.5	5.9%	0.6%	1.8%	3.8%	1.9%	2.6%	3.1%	3.5%
Oil	11.0	12.8	13.5	13.8	3.1%	2.6%	1.2%	2.6%	2.2%	2.4%	2.4%	2.4%
Natural Gas	0.1	0.1	0.1	0.0	14.0%	-4.3%	-38.6%	-4.4%	0.0%	0.1%	0.1%	0.0%
Ireland	**8.8**	**10.2**	**10.2**	**10.7**	**2.9%**	**-0.1%**	**2.6%**	**2.2%**	**0.7%**	**0.8%**	**0.8%**	**0.8%**
Solids	2.6	3.5	3.3	2.8	6.5%	-2.9%	-9.1%	-0.7%	0.8%	1.2%	1.2%	1.1%
Oil	4.1	4.6	4.8	5.6	2.1%	1.9%	8.1%	3.4%	0.8%	0.8%	0.8%	1.0%
Natural Gas	1.9	1.9	1.9	2.2	-0.5%	0.1%	7.5%	1.3%	1.0%	0.9%	0.8%	0.9%
Italy	**135.0**	**153.8**	**157.6**	**152.8**	**2.6%**	**1.2%**	**-1.5%**	**1.4%**	**10.9%**	**11.6%**	**11.8%**	**11.4%**
Solids	15.2	14.6	12.2	11.4	-0.7%	-8.7%	-3.3%	-3.1%	4.8%	4.8%	4.6%	4.7%
Oil	81.0	89.8	93.0	89.1	2.1%	1.7%	-2.1%	1.1%	15.9%	16.5%	16.3%	15.8%
Natural Gas	27.2	39.0	41.1	40.5	7.5%	2.7%	-0.7%	4.5%	13.7%	17.5%	17.3%	16.0%
Luxembourg	**3.1**	**3.5**	**3.8**	**3.8**	**2.6%**	**3.4%**	**-0.5%**	**2.1%**	**0.3%**	**0.3%**	**0.3%**	**0.3%**
Solids	1.4	1.1	1.0	0.9	-4.5%	-5.6%	-5.2%	-4.9%	0.4%	0.4%	0.4%	0.4%
Oil	1.1	1.6	1.9	1.9	8.8%	9.4%	0.0%	6.9%	0.2%	0.3%	0.3%	0.3%
Natural Gas	0.3	0.4	0.5	0.5	7.2%	4.1%	2.4%	5.4%	0.2%	0.2%	0.2%	0.2%
Netherlands	**61.6**	**66.9**	**69.7**	**70.7**	**1.7%**	**2.0%**	**0.8%**	**1.6%**	**5.0%**	**5.1%**	**5.2%**	**5.3%**
Solids	6.6	9.1	7.9	8.8	6.7%	-6.8%	5.7%	3.3%	2.1%	3.0%	3.0%	3.6%
Oil	20.4	24.4	25.8	25.6	3.7%	2.8%	-0.4%	2.6%	4.0%	4.5%	4.5%	4.3%
Natural Gas	32.3	30.8	33.4	33.4	-1.0%	4.1%	0.0%	0.4%	16.3%	13.9%	14.1%	13.1%
Portugal	**12.4**	**17.2**	**18.7**	**19.0**	**6.8%**	**4.4%**	**0.6%**	**4.9%**	**1.0%**	**1.3%**	**1.4%**	**1.4%**
Solids	0.7	2.6	3.0	3.3	31.2%	7.0%	5.9%	19.5%	0.2%	0.8%	1.1%	1.4%
Oil	8.4	11.6	13.1	12.4	6.7%	6.1%	-2.4%	4.5%	1.6%	2.1%	2.3%	2.2%
Natural Gas	0.0	0.0	0.0	0.0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Spain	**73.9**	**89.1**	**95.5**	**97.4**	**3.8%**	**3.5%**	**1.0%**	**3.1%**	**6.0%**	**6.7%**	**7.2%**	**7.3%**
Solids	19.5	18.9	20.8	18.9	-0.6%	4.7%	-4.6%	0.3%	6.1%	6.2%	7.8%	7.8%
Oil	38.3	45.5	49.7	51.4	3.5%	4.5%	1.7%	3.3%	7.5%	8.4%	8.7%	9.1%
Natural Gas	2.4	5.0	5.9	6.3	16.1%	8.5%	3.7%	11.6%	1.2%	2.2%	2.5%	2.5%
Sweden	**46.5**	**46.6**	**46.2**	**48.6**	**0.1%**	**-0.4%**	**2.5%**	**0.5%**	**3.7%**	**3.5%**	**3.5%**	**3.6%**
Solids	2.8	2.7	2.6	2.7	-0.5%	-2.8%	2.2%	-0.4%	0.9%	0.9%	1.0%	1.1%
Oil	17.6	14.5	14.4	14.6	-3.8%	-0.4%	0.9%	-2.0%	3.4%	2.7%	2.5%	2.6%
Natural Gas	0.1	0.5	0.6	0.6	47.8%	9.0%	1.0%	26.9%	0.0%	0.2%	0.3%	0.3%
United Kingdom	**203.7**	**210.8**	**214.2**	**219.6**	**0.7%**	**0.8%**	**1.2%**	**0.8%**	**16.4%**	**16.0%**	**16.1%**	**16.4%**
Solids	62.8	63.3	59.4	48.4	0.2%	-3.1%	-9.8%	-2.8%	19.8%	20.6%	22.3%	19.9%
Oil	77.4	81.7	83.3	85.4	1.1%	1.0%	1.3%	1.1%	15.2%	15.0%	14.6%	15.1%
Natural Gas	46.6	47.2	50.2	60.2	0.2%	3.1%	9.5%	2.9%	23.6%	21.2%	21.1%	23.7%
European Union	**1239.0**	**1320.6**	**1333.1**	**1338.0**	**1.3%**	**0.5%**	**0.2%**	**0.9%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Solids	317.7	306.6	267.0	243.1	-0.7%	-6.7%	-4.6%	-2.9%	100.0%	100.0%	100.0%	100.0%
Oil	510.6	544.6	569.6	565.5	1.3%	2.3%	-0.4%	1.1%	100.0%	100.0%	100.0%	100.0%
Natural Gas	197.8	222.3	237.5	253.8	2.4%	3.4%	3.4%	2.8%	100.0%	100.0%	100.0%	100.0%

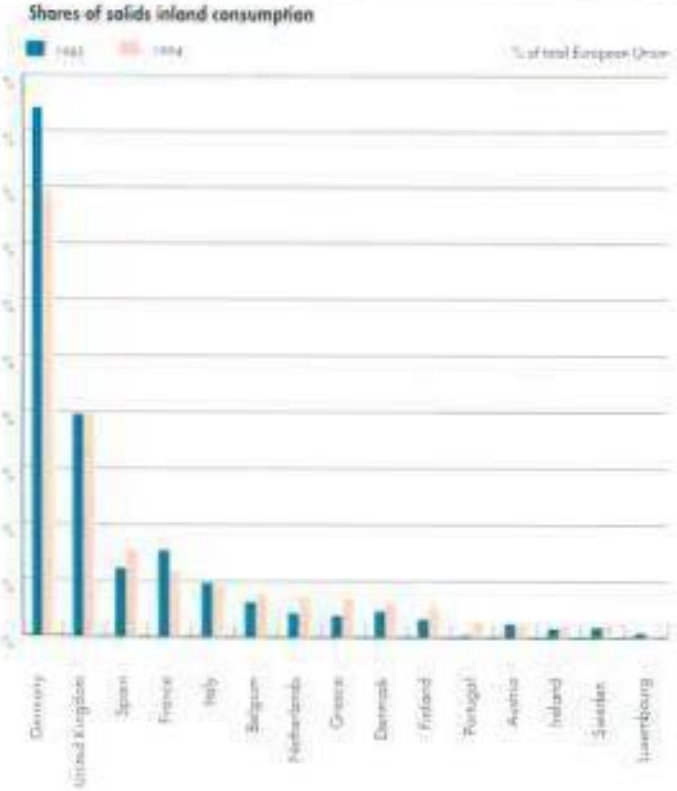
Total oil demand steadily increased by 1% yearly from 1985 to 1994. In fact the increase in oil consumption for transport (38% over the period 1985-1994) compensated largely the drop in use or industry (-10% over the same period) and for domestic & tertiary sector applications (-15%) eventhough the power generation sector remained quite flat. The oil market becomes more and more captive in European Union countries: being almost exclusively used for transport and petrochemistry, with the only exception of Italy, where it is extensively used in thermal power plants (60% of the total European consumption). After a sharp price reduction in 1986 (60% in real terms) during 1986, the oil prices continued to decrease, mainly after the short rebound associated to the Gulf war.







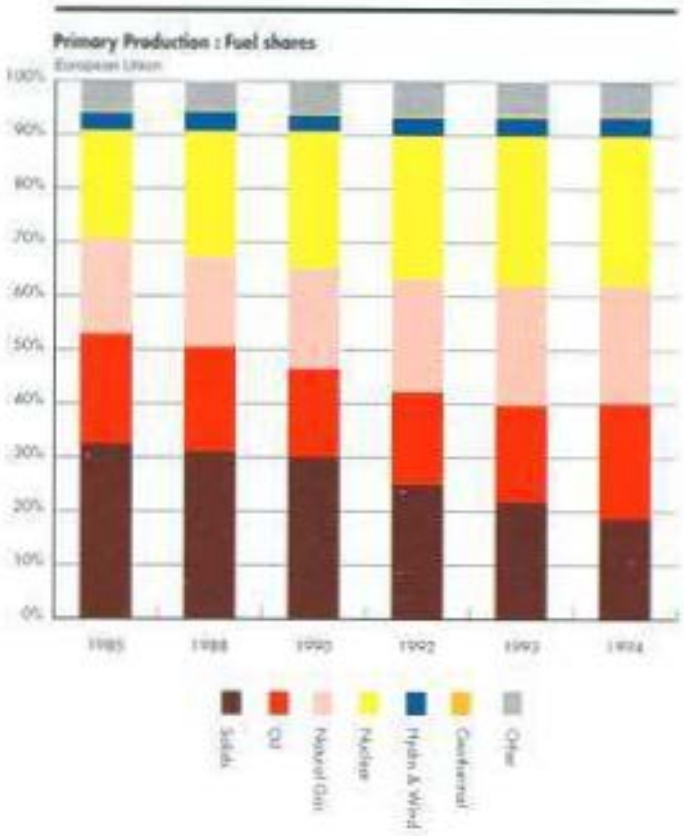
Primary consumption of natural gas increased steadily by 2.8% per year over the period 1985-1994. The market penetration was very strong in the electricity sector (+150%), but also significant in the industry sector (+ 27%) and in the tertiary and domestic sector (+ 26%). Natural gas demand grew the fastest among primary fossil fuels and with in general in all Member States with the exception of the Netherlands where the gas market has been saturated for a long time. In the period 1985-1994, gas penetrated the market in Denmark, Finland and Sweden. In Portugal and Greece, not yet supplied by natural gas, its development is scheduled for the end of the century.



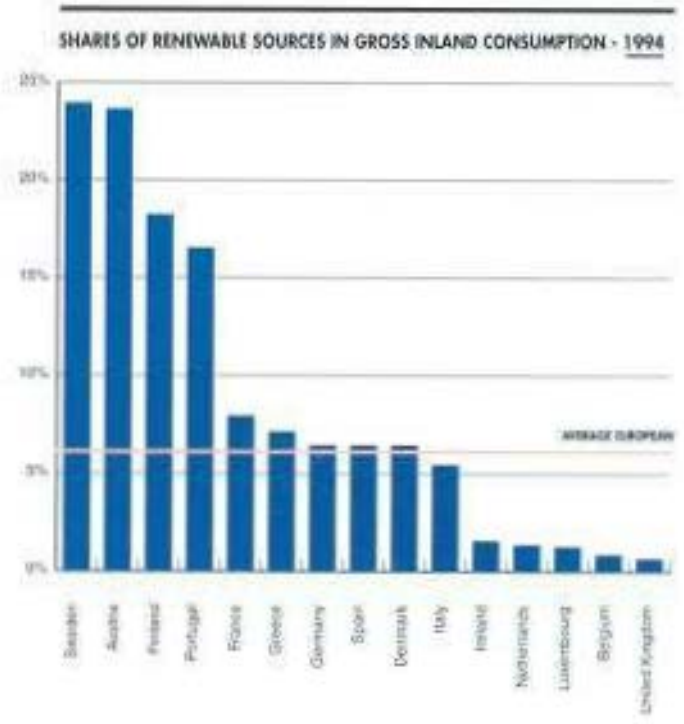
The **use of solid fuels** decreased in most of the Member States and sectors over the period 1985-1994. It slightly increased in Denmark, Finland, Greece, Portugal, Ireland and the Netherlands for power generation and industrial heat applications.

Indigenous Production

Domestic production of primary energy in the European Union as a whole peaked at 754 Mtoe in 1986. It remained rather stable over the period 1985-1994, showing an average decrease of -0.1%. After a continuous decrease up to 1992 by 0.6 to 0.7 percent a year, the two last years saw an increase in energy production by 1% in 1993 and 2.5% during 1994. Solid fuels continued to decline faster and faster during the last five years (12% drop in 1994 and a total reduction of about 36% since 1990). Oil showed a boom in 1994 (23%), driven by the application of more efficient and economical methods for off-shore exploitation, while globally its contribution remained rather stable over the last ten years (0.4% increase on an average). Natural gas and nuclear energy became the main energy sources in Europe (22% and 27.8% respectively), with a continuous increase of 2.2% and 3.6% per year respectively over the period 1985-1994. Hydro-electricity and wind energy remained rather stable and represented only 3.5% of the total in 1994; while geothermal energy globally represented only 0.3% of the energy production in Europe.



In 1994, the contribution of **renewable energy** sources represented 9.9% of the total primary energy production. The situation varies from Member State to Member State. It is mainly used in Sweden, Austria, Finland and Portugal, with a national share of gross inland consumption ranging between 15 to 25%. It is also used significantly in France, Greece, Germany, Spain, Denmark and Italy, with a share comprised of between 5% and 8%. Its use is almost neglectible in the other Member States.



RENEWABLE ENERGY SOURCES IN 1994

Ktoe	Hydro	Wind	Solar	Geoth	Biomass	Other	Total
Production = Gross Inland Consumption							
Austria	3070	0	0	0	3109	0	6179
Belgium	30	1	1	1	421	107	561
Denmark	3	98	4	1	1202	0	1308
Finland	1013	0	0	0	4536	0	5550
France	6822	0	17	122	11432	0	18394
Germany	1591	24	21	9	4339	0	5984
Greece	223	3	98	4	1398	0	1727
Ireland	79	2	0	0	93	0	174
Italy	3840	0	7	2201	2363	91	8503
Luxembourg	10	0	0	0	40	0	50
Netherlands	9	23	3	0	962	0	997
Portugal	916	1	14	37	2184	0	3153
Spain	2408	15	24	7	3876	0	6330
Sweden	5076	6	0	0	6587	0	11669
United Kingdom	436	29	6	1	958	0	1431
European Union	**25529**	**203**	**196**	**2383**	**43500**	**199**	**72009**
Inputs to Power Generation Production							
Austria	3070	0	0	0	360	0	3430
Belgium	30	1	0	0	236	107	374
Denmark	3	98	0	0	731	0	832
Finland	1013	0	0	0	1080	0	2094
France	6822	0	0	0	990	0	7812
Germany	1591	24	0	0	1881	0	3496
Greece	223	3	0	0	0	0	227
Ireland	79	2	0	0	0	0	81
Italy	3840	0	0	1985	299	91	6215
Luxembourg	10	0	0	0	25	0	35
Netherlands	9	23	0	0	533	0	565
Portugal	916	1	0	37	186	0	1142
Spain	2408	15	0	0	755	0	3178
Sweden	5076	6	0	0	1445	0	6528
United Kingdom	436	29	0	0	684	0	1150
European Union	**25529**	**203**	**0**	**2023**	**9205**	**199**	**37157**
Final Energy Consumption							
Austria	0	0	0	0	2749	0	2749
Belgium	0	0	1	1	185	0	187
Denmark	0	0	4	1	471	0	476
Finland	0	0	0	0	3456	0	3456
France	0	0	17	122	10442	0	10582
Germany	0	0	21	9	2459	0	2488
Greece	0	0	98	4	1398	0	1500
Ireland	0	0	0	0	93	0	94
Italy	0	0	7	216	2065	0	2288
Luxembourg	0	0	0	0	15	0	15
Netherlands	0	0	3	0	429	0	432
Portugal	0	0	14	0	1997	0	2011
Spain	0	0	24	7	3121	0	3152
Sweden	0	0	0	0	5141	0	5141
United Kingdom	0	0	6	1	274	0	281
European Union	**0**	**0**	**196**	**360**	**34296**	**0**	**34852**

Self-sufficiency

The degree of self-sufficiency of the European Union as a whole has fluctuated around the 53% level for a decade. Denmark, The Netherlands and the United Kingdom present the highest degrees of self-sufficiency, due to the massive exploitation of their gas and oil. The case of Denmark is particular: being totally dependent on imports in 1974, it has increased its level of self-sufficiency to 24% in 1985 and finally reached the level of 74% in 1994. In the cases of Belgium, France and Spain the levels of self-sufficiency are mainly made up by use of nuclear energy.

The contribution of each Member State to European Union domestic production and the respective evolutions were quite varied. The figures result from several interacting trends:

- adhesion of new Member States
- economic development and associated improvements of way of life
- closure of coal mines
- exploitation of North Sea oil and gas potentials
- implementation of a nuclear power plant programme
- acceptance of the energy from waste and biomass route

However, globally, three major Member States covered the largest part of the domestic production: the United Kingdom (33%), Germany (19%) and France (17%), representing about 70% of the total contribution to total European Union domestic production. Except for the United Kingdom these figures vary quite substantially over the period 1985-1994. While in 1985 Germany accounted for 28% of total, it only accounted for 17% in 1995 due to significant cuts in hard coal production. The continuation of the French nuclear programme permitted this country to reinforce its contribution despite cuts in coal production and drops in natural gas output. Amongst the other Member States, some reinforced their contribution: Spain and Sweden mainly due to the expansion of nuclear energy, Italy thanks to natural gas production increasing and Denmark in relation to oil and gas production growth.

DEGREE OF SELF-SUFFICIENCY IN ENERGY SUPPLY
(Total Domestic Production / Gross Consumption)

%	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Austria	35.01	37.92	32.92	31.99	33.36	35.72	-1.2%	-1.4%	4.3%	7.1%	0.2%
Belgium	30.73	27.80	24.08	21.27	22.59	20.88	-4.8%	-6.0%	6.2%	-7.6%	-4.2%
Denmark	22.05	43.35	52.62	61.25	71.01	71.19	19.0%	7.9%	15.9%	0.2%	13.9%
Finland	39.71	44.36	36.67	44.96	44.29	33.54	-1.6%	10.7%	-1.5%	-24.3%	-1.9%
France	45.43	47.78	46.49	47.33	51.29	52.61	0.5%	0.9%	8.4%	2.6%	1.6%
Germany	57.77	55.19	54.37	44.94	43.87	42.53	-1.2%	-9.1%	-2.4%	-3.1%	-3.3%
Greece	40.93	40.15	39.22	32.34	34.28	42.38	-0.9%	-9.2%	6.0%	23.6%	0.4%
Ireland	39.93	34.43	30.62	34.28	32.76	34.36	-5.2%	5.8%	-4.4%	4.9%	-1.7%
Italy	17.35	19.33	15.63	16.12	19.23	18.91	-2.1%	1.6%	19.3%	-1.7%	1.0%
Luxembourg	0.72	2.10	0.89	0.56	1.69	1.31	4.3%	-20.5%	201.3%	-22.7%	6.8%
Netherlands	94.28	73.06	77.68	82.60	83.83	79.01	-3.8%	3.1%	1.5%	-5.7%	-1.9%
Portugal	24.84	23.54	14.84	14.27	15.61	17.66	-9.8%	-1.9%	9.3%	13.2%	-3.7%
Spain	39.42	38.24	35.57	32.60	33.44	31.91	-2.0%	-4.3%	2.6%	-4.6%	-2.3%
Sweden	57.39	62.91	62.31	63.28	61.74	60.88	1.7%	0.8%	-2.4%	-1.4%	0.7%
United Kingdom	115.37	109.59	96.56	96.11	99.53	113.14	-3.5%	0.2%	3.6%	13.7%	0.2%
EUROPEAN UNION	**58.43**	**56.27**	**52.51**	**50.24**	**52.24**	**53.78**	**-2.1%**	**-2.2%**	**4.0%**	**3.0%**	**-0.9%**

CONTRIBUTION TO TOTAL EUROPEAN UNION DOMESTIC PRODUCTION (SHARES IN %)

	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
By fuel											
Solids	32.6 %	31.2 %	30.2 %	25.1 %	21.9 %	18.8 %	-1.5%	-8.9%	-12.5%	-14.4%	-6.0%
Oil	20.5 %	19.5 %	16.5 %	17.3 %	18.0 %	21.5 %	4.2%	2.4%	3.6%	19.9%	0.5%
Natural gas	17.9 %	16.8 %	18.7 %	20.9 %	22.3 %	22.0 %	0.8%	5.8%	6.5%	-1.4%	2.3%
Nuclear	20.0 %	23.4 %	25.5 %	26.8 %	27.9 %	27.8 %	5.0%	2.5%	3.9%	-0.2%	3.7%
Hydro & Wind	3.3 %	3.6 %	3.1 %	3.5 %	3.5 %	3.5 %	-1.1%	5.9%	0.4%	0.0%	0.7%
Geothermal	0.3 %	0.3 %	0.3 %	0.3 %	0.4 %	0.3 %	5.1%	1.0%	6.4%	-6.8%	3.0%
Other	5.3 %	5.3 %	5.6 %	6.0 %	6.1 %	6.0 %	1.0%	3.8%	1.2%	-0.3%	1.5%
By country											
Austria	1.2 %	1.2 %	1.2 %	1.3 %	1.3 %	1.2 %	1.3%	1.1%	0.7%	-5.1%	0.5%
Belgium	1.9 %	1.8 %	1.7 %	1.7 %	1.6 %	1.6 %	-1.4%	-1.2%	-5.3%	-3.0%	-1.9%
Denmark	0.6 %	1.1 %	1.4 %	1.8 %	1.9 %	2.0 %	16.7%	14.0%	6.1%	5.7%	13.6%
Finland	1.4 %	1.5 %	1.6 %	1.7 %	1.7 %	1.8 %	1.8%	3.1%	3.9%	0.6%	2.2%
France	12.3 %	13.6 %	15.0 %	16.3 %	17.0 %	16.9 %	4.1%	4.1%	4.6%	-0.8%	3.6%
Germany	28.5 %	27.5 %	26.9 %	22.8 %	20.9 %	19.4 %	-1.2%	-8.0%	-8.1%	-7.1%	-4.2%
Greece	1.1 %	1.2 %	1.4 %	1.4 %	1.3 %	1.3 %	4.9%	0.3%	-2.8%	1.2%	2.4%
Ireland	0.4 %	0.4 %	0.5 %	0.4 %	0.5 %	0.5 %	4.8%	5.5%	5.6%	0.2%	1.9%
Italy	3.3 %	3.6 %	3.7 %	4.0 %	4.1 %	4.1 %	2.7%	3.3%	3.0%	1.3%	2.7%
Luxembourg	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	0.0 %	2.1%	6.3%	-3.9%	5.6%	2.7%
Netherlands	8.9 %	7.5 %	8.5 %	9.6 %	9.6 %	9.1 %	-0.9%	6.2%	0.7%	-5.5%	0.3%
Portugal	0.4 %	0.4 %	0.4 %	0.4 %	0.4 %	0.4 %	0.2%	6.5%	11.0%	3.8%	0.2%
Spain	4.1 %	4.5 %	4.7 %	4.7 %	4.6 %	4.4 %	2.7%	0.5%	-1.4%	-3.2%	0.9%
Sweden	3.6 %	4.0 %	4.1 %	4.2 %	4.1 %	4.2 %	2.9%	0.4%	-1.7%	3.9%	1.9%
United Kingdom	32.2 %	31.6 %	28.7 %	30.0 %	30.9 %	32.9 %	-2.3%	2.2%	3.1%	6.6%	0.3%

External Supplies

Closing the gap between domestic production and gross consumption, the European Union took about 46% of its total energy needs from third countries in 1994 (from 42% in 1985 and 50% in 1992). The **net import of energy** in the European Union represented globally 634 Mtoe in 1994, and increased, in absolute figures, by 2.1% over the last 10 years, as the gross inland consumption. For solid fuels some 36% of total needs came from external suppliers in 1994 (24% in 1985 and 29% in 1990). Of those 36%, 8.1% came from United States, 8.0% from South Africa, 5.8% from Australia, 5.4% from Poland, 3.6% from Colombia, 1.6% from CIS and 3.5% from diverse sources. In terms of crude oil, the European Union depended on external supplies for as much as 74% in 1994 (69% in 1985 and 79% in 1990). Of these external supplies 55% came from OPEC, 19% from Norway, 14% from CIS and 12% from diverse sources. The external dependency of the European Union in terms of natural gas was 39% (35% in 1985 and 42% in 1990). In this case the shares of the three major suppliers are: 53% for CIS, 23% for Algeria and 22% for Norway with only 2% from diverse sources (Libya and Australia).

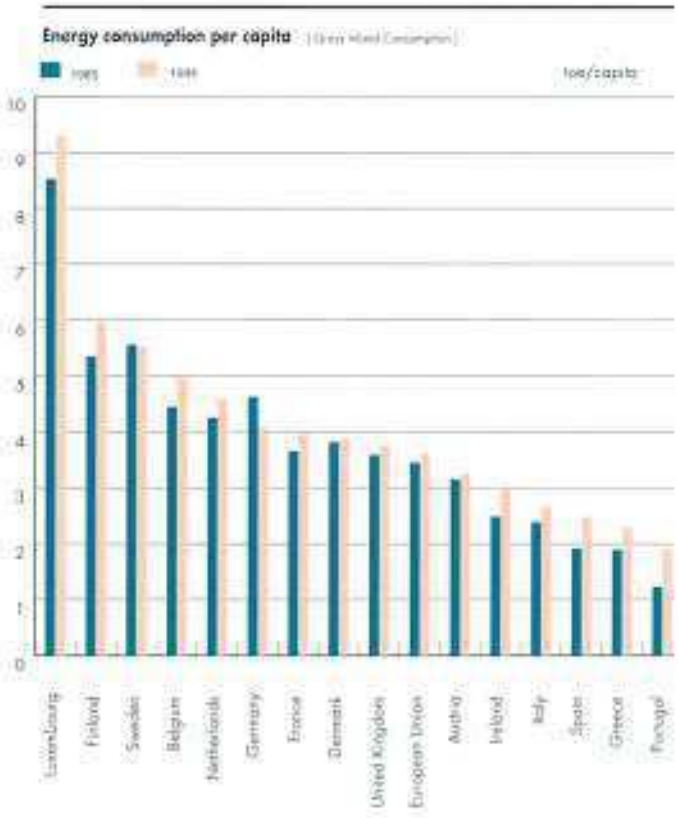
Main Indicators

The European Union demonstrated a continuous improvement of its overall **energy efficiency** (as measured by the energy intensity of its economy) over the period 1985-1994 (-1.8% per year between 1985 and 1990 and -0.7% between 1990 and 1994), in spite of a slight increase by 0.9% in 1991 and by 0.2% in 1993. However, a word of caution is necessary when looking at energy intensity behaviour. Intensity is a ratio between energy consumption and GDP, and the first parameter is highly influenced by the weather conditions without any reflection at the GDP level. In fact, a great deal of the 1991 increase is due to the significant differences in weather conditions. Also, this overall indicator is the result of different developments in the main consuming sectors, including power generation. Indeed, intensity improvements in industry and power generation were the main drivers to reduce the overall energy intensity. On the contrary, until now the transport sector induced losses in overall energy efficiency. The analysis of the behaviour of the domestic and tertiary sectors is difficult due to the lack of sufficient statistical data. While demand in the domestic sector is dominated by space heating needs more linked to weather conditions than to economic growth, consumption in the services sector over the past decades rose due to significant activity growth.

Throughout the period 1985-1994 there are four Member States whose energy intensity increased: Greece (12%), Portugal (+11%), Finland (7%), Spain (2%). As already stated for the southern countries, this evolution results from higher economic growth mainly based on a strong industrialisation and an improved way of life. On the contrary, the Finnish situation results from the very deep economic crisis that affected GDP without reducing the significant energy requirements for heating.

The divergence between Member States decreased during the period 1985-1994. In 1985, Luxembourg which presented the lowest energy efficiency (628 toe/1985 MECU), penalised by a heavy iron-steel industry, was about 2.5 times higher than the most efficient: Denmark. In 1995, Denmark continued to have the lowest intensity while Portugal had the highest value, but only 2 times the Danes. Apart from Germany, where this indicator has been highly influenced by structural changes after 1990 (reunification) resulting in an average reduction of 3.1% per year between 1990 and 1994, a majority of Member States presented increase over the same period: France (+0.1%), the United Kingdom (+0.2%), Greece (+0.3%), Belgium (+0.5%), Denmark (+0.6%), Portugal (+1.3%), Sweden (+1.8%) and Finland (+4.5%).

In terms of **energy consumption per capita**, given the differences in living standards and space heating needs (where geography is the key element), Portugal had the lowest level with 1.92 toe/inhabitant in 1994 while Finland had the highest with 5.97 toe/inhabitant, or almost three times higher, if we exclude Luxembourg whose value is not representative due to the weight of iron steel industry in a limited size country and the importance of motor fuels purchase by drivers from neighbouring Member States. However, over the 1985 to 1994 period, Portugal has been increasing its per capita consumption some four times faster than Finland. This illustrates the differences between an economy growing from a low level of development and an already stable economic system. Member States can be divided into three categories when looking at the growth in energy demand per capita. Those growing more than 2% per year - Portugal (5.0%), Spain (2.9%), Greece (2.2%) and Ireland (2.0%).



MAIN INDICATORS

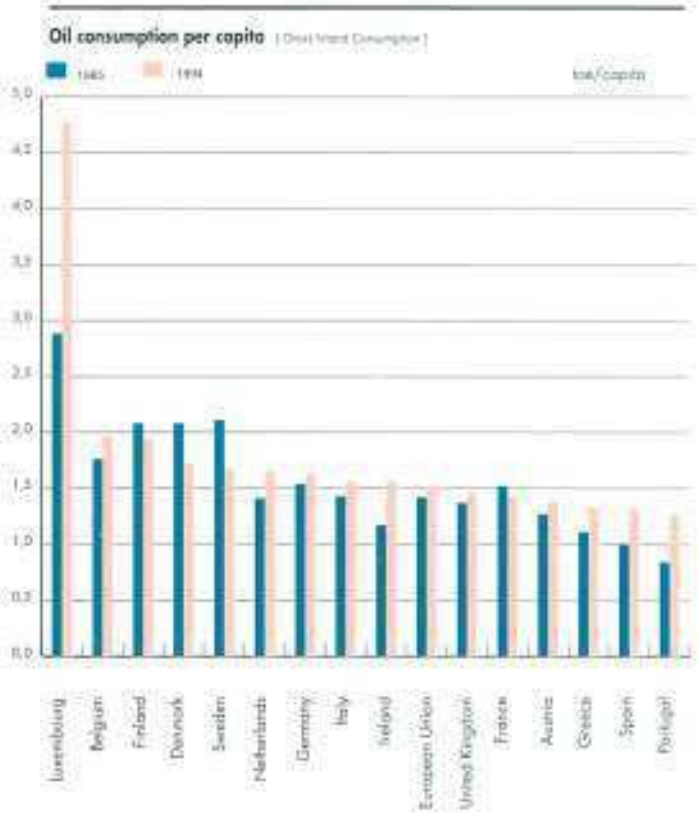
Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85	94/90
							Annual % Change					
Austria												
Gross Inl. Cons./GDP (toe/1985 MECU)	275.9	263.3	257.9	245.4	243.6	242.5	-1.3%	-2.5%	-0.7%	-0.4%	-1.4%	-1.5%
Gross Inl. Cons./Capita (kgoe/inhabitant)	3147.0	3198.0	3337.4	3246.7	3189.5	3245.6	1.2%	-1.4%	-1.8%	1.8%	0.3%	-0.7%
Electricity Generated/Capita (kWh/inhabitant)	5929.7	6495.3	6586.1	6506.3	6590.6	6637.5	2.1%	-0.6%	1.3%	0.7%	1.3%	0.2%
Belgium												
Gross Inl. Cons./GDP (toe/1985 MECU)	414.9	398.1	384.6	392.7	388.5	392.6	-1.5%	1.0%	-1.1%	1.1%	-0.6%	0.5%
Gross Inl. Cons./Capita (kgoe/inhabitant)	4447.4	4607.4	4724.5	4985.4	4829.3	4976.5	1.2%	2.7%	-3.1%	3.0%	1.3%	1.3%
Electricity Generated/Capita (kWh/inhabitant)	5813.6	6598.4	7106.8	7192.2	7024.2	7139.5	4.1%	0.6%	-2.3%	1.6%	2.3%	0.1%
Denmark												
Gross Inl. Cons./GDP (toe/1985 MECU)	254.4	233.6	221.3	229.4	230.7	226.9	-2.8%	1.8%	0.6%	-1.6%	-1.3%	0.6%
Gross Inl. Cons./Capita (kgoe/inhabitant)	3815.8	3673.2	3541.7	3732.3	3784.0	3873.8	-1.5%	2.7%	1.4%	2.4%	0.2%	2.3%
Electricity Generated/Capita (kWh/inhabitant)	5679.3	5450.3	5010.4	5964.9	6500.7	7702.0	-2.5%	9.1%	9.0%	18.5%	3.4%	11.3%
Finland												
Gross Inl. Cons./GDP (toe/1985 MECU)	371.4	355.5	334.4	375.2	396.4	398.8	-2.1%	5.9%	5.6%	0.6%	0.8%	4.5%
Gross Inl. Cons./Capita (kgoe/inhabitant)	5353.1	5676.5	5598.3	5562.5	5732.8	5966.2	0.9%	-0.3%	3.1%	4.1%	1.2%	1.6%
Electricity Generated/Capita (kWh/inhabitant)	10140.2	10894.9	10904.0	11459.1	12053.5	12880.1	1.5%	2.5%	5.2%	6.9%	2.7%	4.3%
France												
Gross Inl. Cons./GDP (toe/1985 MECU)	292.8	277.6	276.7	285.2	290.8	277.8	-1.1%	1.5%	2.0%	-4.5%	-0.6%	0.1%
Gross Inl. Cons./Capita (kgoe/inhabitant)	3662.9	3732.5	3909.3	4057.6	4075.6	3980.9	1.3%	1.9%	0.4%	-2.3%	0.9%	0.5%
Electricity Generated/Capita (kWh/inhabitant)	6226.7	6982.7	7404.2	8088.5	8205.5	8248.5	3.5%	4.5%	1.4%	0.5%	3.2%	2.7%
Germany												
Gross Inl. Cons./GDP (toe/1985 MECU)	398.5	375.9	346.2	313.9	315.5	305.0	-2.8%	-4.8%	0.5%	-3.3%	-2.9%	-3.1%
Gross Inl. Cons./Capita (kgoe/inhabitant)	4625.4	4660.0	4523.2	4190.4	4133.6	4101.3	-0.4%	-3.7%	-1.4%	-0.8%	-1.3%	-2.4%
Electricity Generated/Capita (kWh/inhabitant)	6705.8	7015.1	6912.2	6664.8	6474.9	6471.0	0.6%	-1.8%	-2.8%	-0.1%	-0.4%	-1.6%
Greece												
Gross Inl. Cons./GDP (toe/1985 MECU)	360.2	374.1	399.0	396.7	391.3	403.5	2.1%	-0.3%	-1.4%	3.1%	1.3%	0.3%
Gross Inl. Cons./Capita (kgoe/inhabitant)	1901.3	2063.7	2240.7	2282.1	2227.8	2314.3	3.3%	0.9%	-2.4%	3.9%	2.2%	0.8%
Electricity Generated/Capita (kWh/inhabitant)	2791.9	3327.6	3444.4	3623.6	3698.7	3895.6	4.3%	2.6%	2.1%	5.3%	3.8%	3.1%
Ireland												
Gross Inl. Cons./GDP (toe/1985 MECU)	351.8	335.0	307.4	283.9	270.5	270.3	-2.7%	-3.9%	-4.7%	-0.1%	-2.9%	-3.2%
Gross Inl. Cons./Capita (kgoe/inhabitant)	2494.6	2697.3	2907.2	2865.2	2827.1	2996.6	3.1%	-0.7%	-1.3%	6.0%	2.1%	0.8%
Electricity Generated/Capita (kWh/inhabitant)	3414.1	3745.6	4139.3	4510.6	4600.9	4789.1	3.9%	4.4%	2.0%	4.1%	3.8%	3.7%
Italy												
Gross Inl. Cons./GDP (toe/1985 MECU)	241.2	236.1	236.5	237.8	235.5	227.1	-0.4%	0.3%	-1.0%	-3.6%	-0.7%	-1.0%
Gross Inl. Cons./Capita (kgoe/inhabitant)	2385.4	2578.1	2710.8	2771.7	2717.9	2671.9	2.6%	1.1%	-1.9%	-1.7%	1.3%	-0.4%
Electricity Generated/Capita (kWh/inhabitant)	3280.7	3593.7	3823.1	3978.3	3904.5	4052.3	3.1%	2.0%	-1.9%	3.8%	2.4%	1.5%
Luxembourg												
Gross Inl. Cons./GDP (toe/1985 MECU)	628.1	537.3	526.6	525.7	522.2	495.4	-3.5%	-0.1%	-0.7%	-5.1%	-2.6%	-1.5%
Gross Inl. Cons./Capita (kgoe/inhabitant)	8515.6	8460.8	9286.7	9642.2	9653.9	9293.5	1.7%	1.9%	0.1%	-3.7%	1.0%	0.0%
Electricity Generated/Capita (kWh/inhabitant)	2558.1	3575.8	3609.3	3047.8	2680.4	2945.0	7.1%	-8.1%	-12.1%	9.9%	1.6%	-5.0%
Netherlands												
Gross Inl. Cons./GDP (toe/1985 MECU)	363.5	359.0	339.8	341.6	346.5	337.2	-1.3%	0.3%	1.4%	-2.7%	-0.8%	-0.2%
Gross Inl. Cons./Capita (kgoe/inhabitant)	4248.3	4395.5	4475.5	4587.7	4637.8	4598.1	1.0%	1.2%	1.1%	-0.9%	0.9%	0.7%
Electricity Generated/Capita (kWh/inhabitant)	4342.0	4715.3	4805.5	5083.5	5034.5	5179.0	2.0%	2.9%	-1.0%	2.9%	2.0%	1.9%
Portugal												
Gross Inl. Cons./GDP (toe/1985 MECU)	401.8	410.0	432.7	457.0	446.1	455.7	1.5%	2.8%	-2.4%	2.1%	1.4%	1.3%
Gross Inl. Cons./Capita (kgoe/inhabitant)	1234.2	1482.6	1737.8	1899.5	1860.7	1916.5	7.1%	4.5%	-2.0%	3.0%	5.0%	2.5%
Electricity Generated/Capita (kWh/inhabitant)	1908.4	2255.7	2879.4	3050.3	3159.1	3168.5	8.6%	2.9%	3.6%	0.3%	5.8%	2.4%
Spain												
Gross Inl. Cons./GDP (toe/1985 MECU)	338.5	332.7	327.5	340.9	331.1	344.8	-0.7%	2.0%	-2.9%	4.1%	0.2%	1.3%
Gross Inl. Cons./Capita (kgoe/inhabitant)	1924.4	2152.3	2293.9	2447.3	2346.1	2488.3	3.6%	3.3%	-4.1%	6.1%	2.9%	2.1%
Electricity Generated/Capita (kWh/inhabitant)	3315.5	3607.5	3906.5	4062.9	4004.3	4125.2	3.3%	2.0%	-1.4%	3.0%	2.5%	1.4%
Sweden												
Gross Inl. Cons./GDP (toe/1985 MECU)	349.6	341.2	313.4	318.8	327.4	336.2	-2.2%	0.9%	2.7%	2.7%	-0.4%	1.8%
Gross Inl. Cons./Capita (kgoe/inhabitant)	5564.3	5798.8	5447.4	5333.6	5306.4	5529.0	-0.4%	-1.0%	-0.5%	4.2%	-0.1%	0.4%
Electricity Generated/Capita (kWh/inhabitant)	16422.2	17332.0	17114.3	16808.3	16720.4	16269.6	0.8%	-0.9%	-0.5%	-2.7%	-0.1%	-1.3%
United Kingdom												
Gross Inl. Cons./GDP (toe/1985 MECU)	336.9	303.8	296.0	308.4	307.7	298.5	-2.6%	2.1%	-0.2%	-3.0%	-1.3%	0.2%
Gross Inl. Cons./Capita (kgoe/inhabitant)	3594.0	3689.9	3662.3	3693.2	3746.8	3763.6	0.4%	0.4%	1.4%	0.5%	0.5%	0.7%
Electricity Generated/Capita (kWh/inhabitant)	5257.7	5390.0	5540.5	5532.3	5547.3	5575.3	1.1%	-0.1%	0.3%	0.5%	0.7%	0.2%
European Union												
Gross Inl. Cons./GDP (toe/1985 MECU)	332.3	315.1	304.2	302.1	302.8	296.1	-1.8%	-0.4%	0.2%	-2.2%	-1.3%	-0.7%
Gross Inl. Cons./Capita (kgoe/inhabitant)	3455.9	3577.2	3625.2	3622.6	3599.5	3607.4	1.0%	0.0%	-0.6%	0.2%	0.5%	-0.1%
Electricity Generated/Capita (kWh/inhabitant)	5343.0	5738.6	5914.1	6051.5	6029.3	6111.9	2.1%	1.2%	-0.4%	1.4%	1.5%	0.8%

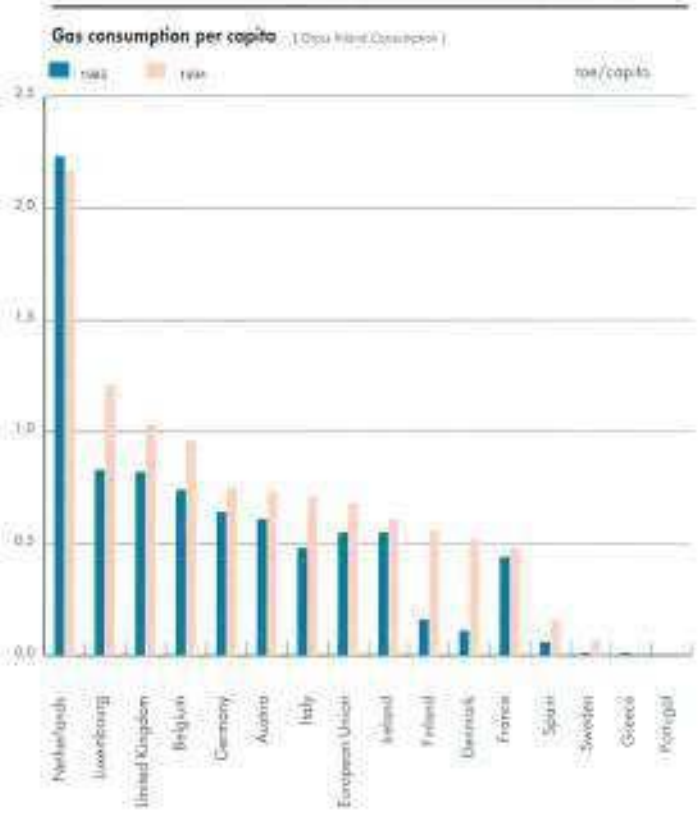
Those increasing between 0% and 2% - Belgium and Italy (1.3%), Finland (1.2%), Luxembourg (1.0%), France and the Netherlands (0.9%), the United Kingdom (0.5%), Austria (0.3%) and finally Denmark (0.2%). Those that slightly decreased: Sweden (-0.1%) and Germany (-1.3%).

The **oil consumption per capita** is characterised by a convergence between all the Member States to the European average during the period 1984-1995. This is a result of the progressive concentration of oil consumption on its captive markets: motor fuels and petrochemistry.

With the exception of the Netherlands, the **gas consumption per capita** has been increasing significantly in all countries where transport and distribution networks are under well developed under the impulse of power generation, industry and tertiary-domestic sectors.

Although CO2 emissions do not constitute an energy indicator, they are shown given their importance in the current political debate. In addition, given the global character and effect of these emissions, the calculation of total emissions was done according to three different methods, although all based on the energy balance and with a bottom-up approach: first, the traditional method where emissions from the transport sector include those produced by aircraft; a second approach where emissions from international maritime navigation (bunkers) are also included; and a third where emissions from both air and maritime navigation are excluded and thus only include those emissions produced in the territory of each member state. This last method, like any other, is not perfect. In fact, air transport consumption includes fuel for all domestic flights, and this is relatively important for large Member States, such as France, Germany, Italy, Spain and the United Kingdom. On the other hand, the traditional method excluding all bunker fuels, overlooks some coastal fishing that benefits from a duty-free fuel regime, consumption which is, in many cases, statistically included in bunkers. In conclusion, the method including emissions from all sectors (domestic market, air transport and bunkers) is important when discussing total levels of emissions at World level. Thus when discussing issues such as burden sharing, it seems useful to analyse those emissions associated only to activities within the territory of each Member State.





CO2 EMISSIONS (TRADITIONAL CALCULATION)

	1985	1988	1990	1992	1993	1994	1985	1988	1990	1992	1993	1994
	Million tonnes of CO2						% Share of European Union					
Austria	53.9	53.4	57.6	56.4	56.9	56.8	1.7%	1.7%	1.8%	1.8%	1.8%	1.8%
Belgium	105.2	108.6	110.8	115.8	111.9	117.2	3.4%	3.4%	3.4%	3.6%	3.6%	3.8%
Denmark	61.4	56.7	55.1	57.2	58.9	63.1	2.0%	1.8%	1.7%	1.8%	1.9%	2.0%
Finland	48.1	51.6	53.3	53.5	57.0	60.7	1.5%	1.6%	1.7%	1.7%	1.8%	2.0%
France	376.2	355.9	369.1	376.1	363.9	352.8	12.1%	11.3%	11.5%	11.8%	11.7%	11.4%
Germany	1048.4	1038.2	1014.3	932.9	917.4	896.9	33.7%	32.9%	31.5%	29.4%	29.4%	28.9%
Greece	58.3	67.5	73.1	74.5	75.4	78.0	1.9%	2.1%	2.3%	2.3%	2.4%	2.5%
Ireland	26.4	29.4	30.7	31.6	30.3	31.7	0.8%	0.9%	1.0%	1.0%	1.0%	1.0%
Italy	350.3	379.2	401.5	392.3	396.1	392.5	11.3%	12.0%	12.5%	12.4%	12.7%	12.6%
Luxembourg	12.1	11.5	12.4	12.6	12.9	12.1	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Netherlands	145.5	152.6	156.7	161.5	168.4	164.7	4.7%	4.8%	4.9%	5.1%	5.4%	5.3%
Portugal	25.8	30.6	39.7	45.8	44.7	45.4	0.8%	1.0%	1.2%	1.4%	1.4%	1.5%
Spain	184.0	188.5	209.5	230.7	217.2	229.4	5.9%	6.0%	6.5%	7.3%	7.0%	7.4%
Sweden	60.2	57.5	52.8	53.4	53.4	56.1	1.9%	1.8%	1.6%	1.7%	1.7%	1.8%
United Kingdom	555.8	576.8	580.2	580.8	559.0	549.7	17.9%	18.3%	18.0%	18.3%	17.9%	17.7%
EUROPEAN UNION	**3111.5**	**3157.9**	**3215.1**	**3175.2**	**3123.4**	**3106.9**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

CO2 EMISSIONS (TOTAL INCLUDING BUNKERS)

	1985	1988	1990	1992	1993	1994	1985	1988	1990	1992	1993	1994
	Million tonnes of CO2						% Share of European Union					
Austria	53.9	53.4	57.6	56.4	56.9	56.8	1.7%	1.6%	1.7%	1.7%	1.8%	1.8%
Belgium	112.7	120.6	124.1	129.2	125.7	130.6	3.5%	3.7%	3.7%	3.9%	3.9%	4.1%
Denmark	62.7	59.5	56.2	60.1	63.1	67.8	2.0%	1.8%	1.7%	1.8%	2.0%	2.1%
Finland	49.6	53.1	55.1	55.7	58.7	62.0	1.5%	1.6%	1.7%	1.7%	1.8%	1.9%
France	364.0	363.0	377.4	384.3	371.7	359.7	12.0%	11.1%	11.3%	11.7%	11.5%	11.2%
Germany	1059.5	1047.6	1022.3	938.6	924.6	903.5	33.1%	32.1%	30.7%	28.6%	28.6%	28.1%
Greece	61.9	74.1	81.3	83.2	85.5	88.6	1.9%	2.3%	2.4%	2.5%	2.6%	2.8%
Ireland	26.4	29.4	30.7	31.7	30.4	31.8	0.8%	0.9%	0.9%	1.0%	0.9%	1.0%
Italy	361.3	389.1	410.1	400.2	404.0	400.1	11.3%	11.9%	12.3%	12.2%	12.5%	12.4%
Luxembourg	12.1	11.5	12.4	12.6	12.9	12.1	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Netherlands	173.5	186.7	191.8	197.7	206.0	200.6	5.4%	5.7%	5.8%	6.0%	6.4%	6.2%
Portugal	27.3	2.0	41.7	47.7	46.3	47.0	0.9%	1.0%	1.3%	1.5%	1.4%	1.5%
Spain	192.4	198.7	221.8	243.1	228.2	239.3	6.0%	6.1%	6.7%	7.4%	7.0%	7.4%
Sweden	62.0	59.6	55.0	56.3	56.3	59.5	1.9%	1.8%	1.7%	1.7%	1.7%	1.8%
United Kingdom	562.5	582.6	588.2	588.8	566.7	556.9	17.6%	17.9%	17.7%	17.9%	17.5%	17.3%
EUROPEAN UNION	**3201.8**	**3260.9**	**3325.7**	**3285.7**	**3237.0**	**3216.1**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

CO2 EMISSIONS (EXCLUDING BUNKERS AND AIR TRANSPORT)

	1985	1988	1990	1992	1993	1994	1985	1988	1990	1992	1993	1994
	Million tonnes of CO2						% Share of European Union					
Austria	53.2	52.5	56.6	55.2	55.7	55.6	1.7%	1.7%	1.8%	1.8%	1.8%	1.8%
Belgium	103.5	106.6	107.9	113.0	109.1	114.5	3.4%	3.5%	3.4%	3.7%	3.6%	3.8%
Denmark	59.7	54.6	51.0	55.3	56.7	60.7	2.0%	1.8%	1.6%	1.8%	1.9%	2.0%
Finland	47.3	50.5	51.9	52.3	55.8	59.5	1.6%	1.6%	1.7%	1.7%	1.8%	2.0%
France	368.1	345.4	357.5	363.2	350.7	339.0	12.1%	11.2%	11.4%	11.8%	11.6%	11.3%
Germany	1036.9	1024.0	997.9	916.9	900.6	878.9	34.0%	33.2%	31.9%	29.7%	29.7%	29.2%
Greece	54.7	64.2	69.3	70.9	71.0	73.8	1.8%	2.1%	2.2%	2.3%	2.3%	2.5%
Ireland	25.7	28.3	29.6	30.8	29.5	30.4	0.8%	0.9%	0.9%	1.0%	1.0%	1.0%
Italy	345.0	374.3	395.8	385.8	389.5	385.6	11.3%	12.1%	12.6%	12.5%	12.8%	12.8%
Luxembourg	11.9	11.1	12.0	12.2	12.5	11.6	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Netherlands	141.8	148.0	151.9	155.5	161.9	157.9	4.7%	4.8%	4.8%	5.0%	5.3%	5.2%
Portugal	24.4	29.0	38.0	43.9	42.9	43.6	0.8%	0.9%	1.2%	1.4%	1.4%	1.4%
Spain	178.1	181.1	202.1	222.3	209.1	220.8	5.8%	5.9%	6.5%	7.2%	6.9%	7.3%
Sweden	58.5	55.2	50.5	50.9	50.9	53.5	1.9%	1.8%	1.6%	1.6%	1.7%	1.8%
United Kingdom	540.2	557.6	559.8	560.1	536.9	527.0	17.7%	18.1%	17.9%	18.1%	17.7%	17.5%
EUROPEAN UNION	**3049.0**	**3082.3**	**3131.8**	**3088.4**	**3032.8**	**3012.5**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

CO2 emissions are given only on an indicative basis and calculated using common emission factors by energy aggregates accross all countries in the world.

The calculated emissions are to be compared to the last SOEC figures as presented below.

	Last available data (SIRENE - 25 juin 1996)	Last published data
1990	3193.2 Mtn CO2	3188.1 Mtn CO2
1991	3217.2 Mtn CO2	3216.3 Mtn CO2
1992	3161.8 Mtn CO2	3171.2 Mtn CO2
1993	3115.8 Mtn CO2	3114.7 Mtn CO2
1994	3092.4 Mtn CO2	na

In general terms, the *CO2 emissions in the Member States taken globally remained constant over the last 10 years* (3107 Million tonnes of CO2 in 1994 compared with 3111 million tonnes in 1985, but 3215 million tonnes in 1990), while the CO2 emissions per capita even showed a reduction of 0.4% a year over the last ten years (8.4 tons of CO2 per capita in 1994 compared to 8.7 in 1985). In the three calculations methods Germany ranks first in spite of an average yearly slowdown of about 3% between 1990 and 1994, with a share of around 29% of total European emissions (34% in 1985). The second Member State is the United Kingdom with a stable share of about 18%. Italy comes third with about 13% (11% in 1985) and France fourth with 11% (12% in 1985). These four Member States together account for 70% of total European emissions.

Looking at CO2 emissions by sector at European Union level, the first conclusion is that the largest sector in terms of emissions is the electricity generation sector, but the trend for this sector has changed drastically since 1992. After an increase in emissions between 1985 and 1992, mainly due to the expansion of fossil fuel based production, there has been a downward trend, in relation to the development of combined cycle which associated high conversion efficiency with the fossil fuel having the lowest CO2 content per unit of energy. The share of emissions from this sector in total appears relatively stable since 1985, at around 29%. Within the final demand sectors, transport (excluding air transport) was the only one with steadily increasing emissions between 1985 and 1993 (3.6% per year in the period), but 1994 showed for the first time a stabilisation notwithstanding in line with the evolution of the energy intensity of this sector. The domestic and tertiary sectors showed a downward trend. (-2.2% per year between 1985 and 1994) in relation to the progression of natural gas and distributed heat on the heating market in place of heating gasoil and solids. Industry presented the greatest fall in CO2 emissions between 1985 and 1993 (-2.6% per year) but emissions rebounded by 3% in 1994 on the impulse of economic growth. Thus, part of the evolution in industry is linked to the evolution of industrial production, with as its background a declining trend due to penetration of electricity and a more away from more CO2-intensive fuels.

EUROPEAN UNION : CO2 EMISSIONS BY SECTORS

European Union	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/90
	Million tonnes of CO2						Annual % Change				
Total	**3201.8**	**3260.9**	**3325.7**	**3285.7**	**3237.0**	**3216.1**	**0.8%**	**-0.6%**	**-1.5%**	**-0.6%**	**-0.8%**
Bunkers	90.3	103.0	110.6	110.5	113.6	109.2	4.1%	0.0%	2.8%	3.8%	0.3%
Air Transport	62.5	75.6	83.3	86.8	90.6	94.4	5.9%	2.1%	4.4%	4.2%	3.2%
Transformation	1065.6	1076.3	1137.4	1153.3	1096.7	1099.2	1.3%	0.7%	-4.9%	0.2%	-0.9%
Power Generation	927.0	934.3	996.6	997.1	939.8	938.2	1.5%	0.0%	-5.7%	-0.2%	-1.5%
Energy sector	138.6	142.1	140.8	156.2	156.9	161.0	0.3%	5.4%	0.4%	2.6%	3.4%
Final Demand sectors	1981.9	2004.6	1993.2	1934.0	1934.5	1912.2	0.1%	-1.5%	0.0%	-1.2%	-1.0%
Industry	676.0	660.9	633.6	568.1	548.5	565.1	-1.3%	-5.3%	-3.4%	3.0%	-2.8%
Transport	561.1	624.0	674.6	706.3	720.6	720.9	4.5%	2.3%	2.0%	0.0%	1.7%
Domestic and Tertiary	764.8	719.7	685.0	659.6	665.4	626.2	-2.2%	-1.9%	0.9%	-5.9%	-2.2%

To a very large extent, the different behaviour of Member States in terms of total CO2 emissions is a function of developments of the fuel mix for power generation. This can be measured by the CO2 intensity of the different power systems (for example, France with 58 tonnes of CO2 per Gwh produced in 1994 with a production largely based on nuclear and hydro, against 959 tonnes of CO2 per Gwh produced in Greece, mainly based on national lignite). The evolution amongst Member States is very contrasted. In those Member States where nuclear energy continued to be developed after 1985 such as in France or Spain, CO2 emissions from power generation dropped significantly between 1985 to 1994, by 60% and 15% respectively. On the contrary, in Belgium and in Finland, without new nuclear capacities, the CO2 intensity increased respectively by 7% and 34% respectively. In those cases where the power generation relies mainly on solid fuels CO2 emissions increased rapidly, such as Portugal (+63%). For those Member States where hydro has been loosing share in total electricity generation, CO2 emissions also increased rapidly, as in Austria (15%). On the contrary, the switch away from more CO2 intensive fuels in favour of natural gas, permitted these last two-three years to significantly reduce CO2 intensity, for example by 22% in the United Kingdom since 1990.

CO2 EMISSIONS FROM POWER GENERATION

	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/90
							Annual % Change				
Austria											
CO2 Emissions (Million tonnes of CO2)	7.5	8.7	12.8	10.1	9.5	10.3	11.3%	-11.1%	-6.1%	8.4%	-5.3%
Share in European Union (%)	0.8	0.9	1.3	1.0	1.0	1.1	9.7%	-11.1%	-0.4%	8.5%	-3.9%
Intensity (t of CO2/GWh generated)	167.5	176.6	252.3	196.9	180.7	193.5	8.5%	-11.7%	-8.2%	7.1%	-6.4%
Belgium											
CO2 Emissions (Million tonnes of CO2)	19.9	19.9	24.0	23.6	23.3	26.7	3.9%	-0.9%	-1.2%	14.8%	2.7%
Share in European Union (%)	2.1	2.1	2.4	2.4	2.5	2.8	2.4%	-1.0%	-4.8%	15.0%	4.3%
Intensity (t of CO2/GWh generated)	346.7	304.7	339.0	326.1	328.5	369.9	-0.5%	-1.9%	0.7%	12.6%	2.2%
Denmark											
CO2 Emissions (Million tonnes of CO2)	26.9	25.5	23.0	26.8	28.4	32.0	-3.1%	8.0%	5.9%	12.5%	8.6%
Share in European Union (%)	2.9	2.7	2.3	2.7	3.0	3.4	-4.5%	8.0%	12.4%	12.7%	10.2%
Intensity (t of CO2/GWh generated)	924.9	912.1	892.1	869.4	842.0	797.1	-0.7%	-1.3%	-3.2%	-5.3%	-2.8%
Finland											
CO2 Emissions (Million tonnes of CO2)	13.2	15.2	16.1	15.0	18.5	23.4	3.9%	-3.5%	23.6%	26.5%	9.9%
Share in European Union (%)	1.4	1.6	1.6	1.5	2.0	2.5	2.4%	-3.5%	31.1%	26.7%	11.5%
Intensity (t of CO2/GWh generated)	266.5	281.2	295.4	258.9	302.8	357.0	2.1%	-6.4%	16.9%	17.9%	4.8%
France											
CO2 Emissions (Million tonnes of CO2)	50.2	36.1	44.2	42.8	29.0	27.8	-2.5%	-1.5%	-32.3%	-4.1%	-10.9%
Share in European Union (%)	5.4	3.9	4.4	4.3	3.1	3.0	-3.9%	-1.5%	-28.2%	-3.9%	-9.6%
Intensity (t of CO2/GWh generated)	145.9	92.2	105.1	92.3	61.2	58.2	-6.3%	-6.3%	-33.6%	-5.0%	-13.7%
Germany											
CO2 Emissions (Million tonnes of CO2)	361.0	360.2	358.0	354.0	339.5	334.4	-0.2%	-0.6%	-4.1%	-1.5%	-1.7%
Share in European Union (%)	38.9	38.6	35.9	35.5	36.1	35.6	-1.6%	-0.6%	1.7%	-1.3%	0.2%
Intensity (t of CO2/GWh generated)	693.1	657.4	652.7	659.1	645.8	634.8	-1.2%	0.5%	-2.0%	-1.7%	-0.7%
Greece											
CO2 Emissions (Million tonnes of CO2)	26.2	31.8	35.8	36.5	36.7	39.0	6.4%	1.1%	0.4%	6.2%	2.2%
Share in European Union (%)	2.8	3.4	3.6	3.7	3.9	4.2	4.9%	1.1%	6.5%	6.3%	3.7%
Intensity (t of CO2/GWh generated)	943.6	953.5	1021.9	977.1	955.9	959.2	1.6%	-2.2%	-2.2%	0.3%	-1.6%
Ireland											
CO2 Emissions (Million tonnes of CO2)	8.3	10.0	10.3	12.1	12.1	12.5	4.2%	8.7%	-0.5%	3.4%	5.0%
Share in European Union (%)	0.9	1.1	1.0	1.2	1.3	1.3	2.7%	8.6%	5.6%	3.6%	6.6%
Intensity (t of CO2/GWh generated)	690.2	757.7	707.6	757.3	736.1	729.7	0.5%	3.5%	-2.8%	-0.9%	0.8%
Italy											
CO2 Emissions (Million tonnes of CO2)	93.7	109.4	122.4	118.7	115.4	118.5	5.5%	-1.5%	-2.8%	2.7%	-0.8%
Share in European Union (%)	10.1	11.7	12.3	11.9	12.3	12.6	4.0%	-1.5%	3.1%	2.9%	0.7%
Intensity (t of CO2/GWh generated)	504.6	537.7	564.6	524.9	518.0	511.2	2.3%	-3.6%	-1.3%	-1.3%	-2.5%
Luxembourg											
CO2 Emissions (Million tonnes of CO2)	1.0	1.2	1.4	1.4	1.5	1.2	7.2%	0.3%	2.3%	-20.0%	-4.7%
Share in European Union (%)	0.1	0.1	0.1	0.1	0.2	0.1	5.7%	0.3%	8.5%	-19.9%	-3.3%
Intensity (t of CO2/GWh generated)	1079.1	878.6	1041.1	1206.7	1385.5	993.3	-0.7%	7.7%	14.8%	-28.3%	-1.2%
Netherlands											
CO2 Emissions (Million tonnes of CO2)	37.4	43.6	45.4	46.4	48.6	49.0	3.9%	1.1%	4.8%	0.7%	1.9%
Share in European Union (%)	4.0	4.7	4.6	4.7	5.2	5.2	2.4%	1.1%	11.2%	0.9%	3.5%
Intensity (t of CO2/GWh generated)	594.1	626.6	631.3	601.0	631.8	614.9	1.2%	-2.4%	5.1%	-2.7%	-0.7%
Portugal											
CO2 Emissions (Million tonnes of CO2)	5.9	8.0	15.0	18.9	17.3	15.9	20.4%	12.2%	-8.3%	-8.2%	1.5%
Share in European Union (%)	0.6	0.9	1.5	1.9	1.8	1.7	18.7%	12.2%	-2.7%	-8.1%	3.0%
Intensity (t of CO2/GWh generated)	309.6	354.7	525.9	626.9	554.6	506.1	11.2%	9.2%	-11.5%	-8.7%	-1.0%
Spain											
CO2 Emissions (Million tonnes of CO2)	61.7	50.5	65.0	76.4	66.0	66.6	1.1%	8.4%	-13.6%	0.9%	0.6%
Share in European Union (%)	6.7	5.4	6.5	7.7	7.0	7.1	-0.4%	8.3%	-8.4%	1.0%	2.1%
Intensity (t of CO2/GWh generated)	484.6	361.5	428.6	481.9	421.6	412.2	-2.4%	6.0%	-12.5%	-2.2%	-1.0%
Sweden											
CO2 Emissions (Million tonnes of CO2)	8.2	6.3	4.7	6.1	6.7	7.4	-10.8%	14.1%	11.2%	10.1%	12.4%
Share in European Union (%)	0.9	0.7	0.5	0.6	0.7	0.8	-12.0%	14.1%	18.0%	10.3%	14.1%
Intensity (t of CO2/GWh generated)	60.0	43.2	31.8	41.6	46.3	52.0	-11.9%	14.4%	11.2%	12.3%	13.1%
United Kingdom											
CO2 Emissions (Million tonnes of CO2)	205.9	207.9	218.6	208.3	187.4	173.7	1.2%	-2.4%	-10.0%	-7.3%	-5.6%
Share in European Union (%)	22.2	22.2	21.9	20.9	19.9	18.5	-0.2%	-2.4%	-4.5%	-7.2%	-4.2%
Intensity (t of CO2/GWh generated)	690.7	674.7	685.6	649.1	580.6	534.0	-0.1%	-2.7%	-10.6%	-8.0%	-6.1%
European Union											
CO2 Emissions (Million tonnes of CO2)	927.0	934.3	996.6	997.1	939.8	938.2	1.5%	0.0%	-5.7%	-0.2%	-1.5%
Intensity (t of CO2/GWh generated)	483.6	450.6	462.3	447.8	421.6	413.9	-0.9%	-1.6%	-5.8%	-1.8%	-2.7%

EUROPEAN UNION : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	735.1	741.2	710.4	701.7	708.8	726.9	-0.7%	-0.6%	1.0%	2.5%	-0.1%
Solids	239.9	230.9	214.7	176.0	155.5	136.5	-2.2%	-9.5%	-11.6%	-12.2%	-6.1%
Oil	151.0	144.7	117.5	121.6	127.3	156.6	-4.9%	1.8%	4.7%	23.0%	0.4%
Natural gas	131.7	124.5	132.7	146.7	157.9	159.6	0.2%	5.2%	7.6%	1.1%	2.2%
Nuclear	147.3	173.2	181.4	188.3	197.6	202.1	4.2%	1.9%	4.9%	2.3%	3.6%
Hydro & Wind	24.4	26.8	22.3	24.7	25.1	25.7	-1.8%	5.2%	1.5%	2.6%	0.6%
Geothermal	1.9	2.1	2.3	2.3	2.5	2.4	4.4%	0.4%	7.5%	-4.5%	2.8%
Other	38.9	39.0	39.5	42.0	42.9	43.9	0.3%	3.1%	2.2%	2.2%	1.3%
Net Imports	527.1	579.2	643.7	680.4	652.4	634.0	4.1%	2.8%	-4.1%	-2.8%	2.1%
Solids	75.2	73.7	88.2	99.2	87.7	87.8	3.2%	6.0%	-11.6%	0.2%	1.7%
Oil	381.9	420.7	460.7	483.8	467.5	446.4	3.8%	2.5%	-3.4%	-4.5%	1.7%
Crude oil	343.3	398.2	436.6	470.1	458.9	443.1	4.9%	3.8%	-2.4%	-3.4%	2.9%
Oil products	38.6	22.6	24.1	13.7	8.7	3.3	-9.0%	-24.6%	-36.6%	-62.0%	-23.9%
Natural gas	68.6	82.7	92.5	95.9	95.3	98.4	6.2%	1.8%	-0.6%	3.2%	4.1%
Electricity	1.3	2.1	2.3	1.6	1.9	1.5	12.0%	-16.8%	16.4%	-22.7%	1.0%
Gross Inland Consumption	1239.9	1292.7	1321.3	1333.1	1330.8	1338.0	1.3%	0.4%	-0.2%	0.5%	0.8%
Solids	317.7	305.5	306.6	267.0	247.8	243.1	-0.7%	-6.7%	-7.2%	-1.9%	-2.9%
Oil	510.6	536.7	544.6	569.6	561.1	565.5	1.3%	2.3%	-1.5%	0.8%	1.1%
Natural gas	197.8	207.4	222.3	237.5	251.8	253.8	2.4%	3.4%	6.0%	0.8%	2.8%
Other (1)	213.8	243.2	247.8	259.0	270.0	275.6	3.0%	2.2%	4.3%	2.1%	2.9%
Electricity Generation in TWh	1917.0	2073.8	2155.6	2226.9	2229.1	2266.9	2.4%	1.6%	0.1%	1.7%	1.9%
Nuclear	574.9	681.9	720.1	759.8	794.1	791.8	4.6%	2.7%	4.5%	-0.3%	3.6%
Hydro & wind (including pumping)	299.1	325.7	276.3	307.0	309.3	315.9	-1.6%	5.4%	0.7%	2.1%	0.6%
Thermal	1042.9	1066.2	1159.2	1160.0	1125.7	1159.2	2.1%	0.0%	-3.0%	3.0%	1.2%
Generation Capacity in GWe	480.9	510.6	522.9	519.9	529.6	532.5	1.7%	-0.3%	1.8%	0.5%	1.1%
Nuclear	87.0	110.0	116.7	116.9	118.9	118.7	6.0%	0.1%	1.7%	-0.1%	3.5%
Hydro & wind	103.5	108.7	111.7	113.3	115.7	116.4	1.5%	0.7%	2.2%	0.6%	1.3%
Thermal	290.4	291.8	294.6	289.8	295.0	297.3	0.3%	-0.8%	1.8%	0.8%	0.3%
Average Load Factor in %	45.5	46.4	47.1	48.9	48.1	48.6	0.7%	1.9%	-1.7%	1.1%	0.7%
Fuel Inputs for Thermal Power Generation	248.3	250.1	269.5	272.0	259.2	260.9	1.7%	0.5%	-4.7%	0.7%	0.6%
Solids	169.6	173.3	181.6	178.7	165.6	164.7	1.4%	-0.8%	-7.4%	-0.5%	-0.3%
Oil	40.8	37.0	42.8	47.0	42.4	40.6	1.0%	4.8%	-9.6%	-4.3%	0.0%
Gas	30.9	32.7	37.6	37.7	42.1	46.3	4.0%	0.1%	11.6%	9.9%	4.6%
Geothermal	1.7	1.8	1.9	2.0	2.1	2.0	2.0%	2.8%	7.7%	-5.3%	2.0%
Other	5.3	5.4	5.6	6.6	6.9	7.3	1.0%	8.4%	4.9%	4.8%	3.5%
Average Thermal Efficiency in %	36.1	36.7	37.0	36.7	37.4	38.2	0.5%	-0.4%	1.8%	2.3%	0.6%
Non-Energy Uses	76.7	84.7	84.1	89.3	85.3	91.8	1.9%	3.1%	-4.5%	7.6%	2.0%
Total Final Energy Demand	823.7	855.7	870.4	880.1	889.9	886.2	1.1%	0.6%	1.1%	-0.4%	0.8%
Solids	107.2	95.3	90.8	61.5	55.0	52.7	-3.3%	-17.7%	-10.5%	-4.2%	-7.6%
Oil	374.2	396.1	396.8	410.8	416.7	416.5	1.2%	1.8%	1.4%	-0.1%	1.2%
Gas	164.9	174.6	182.1	197.9	203.9	198.8	2.0%	4.2%	3.0%	-2.5%	2.1%
Electricity	137.0	149.9	156.7	162.1	162.5	165.6	2.7%	1.7%	0.3%	1.9%	2.1%
Heat	9.3	10.2	12.3	13.9	17.4	17.9	5.7%	6.2%	25.5%	2.8%	7.5%
Other	31.0	29.7	31.7	33.9	34.4	34.7	0.5%	3.4%	1.3%	0.9%	1.2%
CO2 Emissions in Mt of CO2 (2)	3111.5	3157.9	3215.1	3175.2	3123.4	3106.9	0.7%	-0.6%	-1.6%	-0.5%	0.0%
Indicators											
Population (Million)	358.8	361.4	364.5	368.0	369.7	370.9	0.3%	0.5%	0.5%	0.3%	0.4%
GDP (bil. ECU 1985)	3730.8	4102.1	4343.5	4413.0	4395.0	4518.9	3.1%	0.8%	-0.4%	2.8%	2.2%
Gross Inl Cons./GDP (toe/1985 MECU)	332.3	315.1	304.2	302.1	302.8	296.1	-1.8%	-0.4%	0.2%	-2.2%	-1.3%
Gross Inl Cons./Capita (kgoe/inhabitant)	3455.9	3577.2	3625.2	3622.6	3599.5	3607.4	1.0%	0.0%	-0.6%	0.2%	0.5%
Electricity Generated/Capita (kWh/inhabitant)	5343.0	5738.6	5914.1	6051.5	6029.3	6111.9	2.1%	1.2%	-0.4%	1.4%	1.5%
CO2 Emissions/Capita (t of CO2/inhabitant)	8.7	8.7	8.8	8.6	8.4	8.4	0.3%	-1.1%	-2.1%	-0.8%	-0.4%
Import dependency %	41.6	43.7	47.5	49.8	47.8	46.2	2.7%	2.4%	-4.0%	-3.2%	1.2%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

AUSTRIA : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	8.55	9.04	8.81	8.90	9.05	8.81	0.6%	0.5%	1.8%	-2.7%	0.3%
Solids	0.63	0.56	0.64	0.46	0.43	0.34	0.6%	-15.2%	-6.0%	-20.6%	-6.4%
Oil	1.15	1.21	1.19	1.20	1.18	1.13	0.5%	0.8%	-2.2%	-3.7%	-0.2%
Natural gas	1.01	1.09	1.11	1.22	1.27	1.15	1.9%	5.1%	3.5%	-8.9%	1.5%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	2.66	3.08	2.71	2.99	3.16	3.07	0.4%	5.2%	5.4%	-2.7%	1.6%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	3.10	3.10	3.17	3.02	3.02	3.11	0.4%	-2.4%	0.2%	2.9%	0.0%
Net Imports	15.46	15.08	17.28	17.48	16.99	16.75	2.3%	0.6%	-2.8%	-1.4%	0.9%
Solids	3.57	3.35	3.12	3.14	2.61	2.49	-2.7%	0.3%	-16.6%	-4.8%	-3.9%
Oil	8.39	8.73	9.71	9.94	9.85	10.09	3.0%	1.2%	-0.9%	2.4%	2.1%
Crude oil	6.68	6.51	7.80	8.25	8.07	8.27	3.1%	2.8%	-2.2%	2.5%	2.4%
Oil products	1.71	2.22	1.91	1.70	1.79	1.82	2.2%	-5.7%	5.3%	1.8%	0.7%
Natural gas	3.64	3.24	4.49	4.35	4.58	4.24	4.3%	-1.6%	5.3%	-7.4%	1.7%
Electricity	-0.15	-0.23	-0.04	0.05	-0.06	-0.07	-23.2%	-	-232.3%	12.3%	-7.9%
Gross Inland Consumption	23.78	24.29	25.76	25.69	25.49	26.06	1.6%	-0.1%	-0.8%	2.3%	1.0%
Solids	3.96	3.72	4.16	3.33	2.90	2.95	1.0%	-10.5%	-13.0%	1.7%	-3.2%
Oil	9.61	10.19	10.52	10.92	10.80	11.16	1.8%	1.9%	-1.1%	3.4%	1.7%
Natural gas	4.60	4.43	5.24	5.38	5.68	5.84	2.6%	1.4%	5.6%	2.9%	2.7%
Other (1)	5.62	5.95	5.84	6.06	6.11	6.11	0.8%	1.9%	0.9%	-0.1%	0.9%
Electricity Generation in TWh	44.82	49.34	50.83	51.49	52.67	53.30	2.6%	0.6%	2.3%	1.2%	1.9%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	0.0%	0.0%	0.0%	0.0%
Hydro & wind (including pumping)	31.89	36.86	32.91	36.40	38.01	36.89	0.6%	5.2%	4.4%	-3.0%	1.6%
Thermal	12.93	12.48	17.92	15.10	14.65	16.41	6.7%	-8.2%	-2.9%	12.0%	2.7%
Generation Capacity in GWe	15.25	16.74	16.69	17.23	17.35	17.41	1.8%	1.6%	0.7%	0.3%	1.5%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	10.17	10.76	10.95	11.10	11.27	11.34	1.5%	0.7%	1.6%	0.6%	1.2%
Thermal	5.08	5.98	5.74	6.14	6.08	6.07	2.5%	3.4%	-0.9%	-0.2%	2.0%
Average Load Factor in %	33.5	33.6	34.8	34.1	34.6	34.9	0.7%	-1.0%	1.6%	0.9%	0.5%
Fuel Inputs for Thermal Power Generation	2.47	2.82	4.05	3.41	3.21	3.54	10.4%	-8.3%	-5.8%	10.4%	4.1%
Solids	0.66	0.84	1.46	0.88	0.74	0.76	17.2%	-22.5%	-16.5%	3.9%	1.6%
Oil	0.33	0.41	0.45	0.45	0.55	0.55	6.1%	1.0%	21.0%	0.4%	5.8%
Gas	1.31	1.41	1.97	1.88	1.73	2.01	8.5%	-2.3%	-8.1%	16.1%	4.8%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.17	0.17	0.17	0.19	0.19	0.22	0.5%	4.8%	2.0%	14.6%	3.1%
Average Thermal Efficiency in %	45.0	38.0	38.0	38.1	39.3	39.9	-3.3%	0.1%	3.1%	1.5%	-1.3%
Non-Energy Uses	1.52	1.48	1.57	1.46	1.25	1.51	0.3%	-3.4%	-14.7%	20.9%	-0.1%
Total Final Energy Demand	18.84	18.88	19.75	20.55	20.99	20.75	0.9%	2.0%	2.1%	-1.2%	1.1%
Solids	2.43	1.92	1.75	1.57	1.41	1.40	-6.4%	-5.0%	-10.6%	-0.5%	-5.9%
Oil	7.43	7.83	8.12	8.55	8.83	8.57	1.8%	2.6%	3.3%	-3.0%	1.6%
Gas	2.98	2.81	3.03	3.28	3.47	3.42	0.3%	4.0%	5.8%	-1.2%	1.6%
Electricity	3.18	3.45	3.71	3.83	3.85	3.90	3.1%	1.6%	0.3%	1.4%	2.3%
Heat	0.44	0.48	0.57	0.62	0.72	0.71	5.3%	4.8%	15.4%	-1.7%	5.5%
Other	2.39	2.39	2.58	2.70	2.72	2.75	1.6%	2.3%	0.9%	0.9%	1.6%
CO2 Emissions in Mt of CO2 (2)	53.9	53.4	57.6	56.4	56.9	56.8	1.4%	-1.1%	1.0%	-0.2%	0.6%
Indicators											
Population (Million)	7.56	7.60	7.72	7.91	7.99	8.03	0.4%	1.3%	1.0%	0.5%	0.7%
GDP (bil. ECU 1985)	86.2	92.3	99.9	104.7	104.6	107.5	3.0%	2.4%	0.1%	2.7%	2.5%
Gross Inl Cons./GDP (toe/1985 MECU)	275.9	263.3	257.9	245.4	243.6	242.5	-1.3%	-2.5%	-0.7%	-0.4%	-1.4%
Gross Inl Cons./Capita (kgoe/inhabitant)	3147.0	3198.0	3337.4	3246.7	3189.5	3245.6	1.2%	-1.4%	-1.8%	1.8%	0.3%
Electricity Generated/Capita (kWh/inhabitant)	5929.7	6495.3	6586.1	6506.3	6590.6	6637.5	2.1%	-0.6%	1.3%	0.7%	1.3%
CO2 Emissions/Capita (t of CO2/inhabitant)	7.1	7.0	7.5	7.1	7.1	7.1	0.9%	-2.3%	0.0%	-0.7%	-0.1%
Import Dependency %	65.0	62.1	67.1	68.0	66.6	64.3	0.6%	0.7%	-2.0%	-3.5%	-0.1%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

BELGIUM : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	13.69	13.23	12.36	11.93	11.42	11.36	-2.0%	-1.8%	-4.3%	-0.5%	-2.1%
Solids	4.38	1.85	1.08	0.60	0.48	0.32	-24.4%	-25.9%	-19.3%	-33.9%	-25.3%
Oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Natural gas	0.03	0.01	0.01	0.00	0.00	0.00	-22.3%	-32.5%	-43.4%	-62.9%	-33.0%
Nuclear	8.70	10.80	10.71	10.74	10.42	10.48	4.2%	0.1%	-3.0%	0.6%	2.1%
Hydro & Wind	0.02	0.03	0.02	0.03	0.02	0.03	-0.7%	12.9%	-24.9%	35.5%	2.5%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	24.6%	7.6%	4.0%	1.9%	15.6%
Other	0.55	0.53	0.53	0.56	0.49	0.53	-0.4%	2.2%	-12.5%	8.3%	-0.3%
Net Imports	31.97	35.59	38.86	42.69	41.00	43.07	4.0%	4.8%	-4.0%	5.0%	3.4%
Solids	5.57	6.75	9.49	9.28	7.80	8.65	11.3%	-1.1%	-15.9%	10.9%	5.0%
Oil	19.12	21.88	21.47	24.26	23.54	24.30	2.3%	6.3%	-3.0%	3.2%	2.7%
Crude oil	20.35	24.97	26.12	28.85	27.39	27.77	5.1%	5.1%	-5.0%	1.4%	3.5%
Oil products	-1.23	-3.08	-4.65	-4.58	-3.85	-3.47	30.5%	-0.7%	-16.0%	-9.8%	12.2%
Natural gas	7.29	7.15	8.22	9.14	9.47	9.78	2.4%	5.5%	3.6%	3.3%	3.3%
Electricity	0.00	-0.18	-0.32	0.01	0.19	0.34	140.8%	-	1643.0%	78.5%	-
Gross Inland Consumption	43.84	45.62	47.09	50.08	48.70	50.36	1.4%	3.1%	-2.8%	3.4%	1.5%
Solids	9.90	8.77	10.24	9.61	8.74	9.33	0.7%	-3.2%	-9.0%	6.7%	-0.7%
Oil	17.34	18.46	17.73	20.08	19.43	19.96	0.4%	6.4%	-3.3%	2.7%	1.6%
natural gas	7.33	7.21	8.17	9.05	9.41	9.67	2.2%	5.3%	3.9%	2.8%	3.1%
Other (1)	9.27	11.18	10.95	11.34	11.12	11.38	3.4%	1.8%	-1.9%	2.3%	2.3%
Electricity Generation in TWh	57.31	65.34	70.83	72.25	70.83	72.22	4.3%	1.0%	-2.0%	2.0%	2.6%
Nuclear	34.59	43.09	42.71	43.45	41.92	40.62	4.3%	0.9%	-3.5%	-3.1%	1.8%
Hydro & wind (including pumping)	1.35	1.17	0.90	1.16	1.03	1.19	-7.7%	13.4%	-11.7%	16.1%	-1.4%
Thermal	21.37	21.07	27.21	27.63	27.88	30.41	5.0%	0.8%	0.9%	9.1%	4.0%
Generation Capacity in GWe	14.17	14.03	14.14	14.04	14.05	14.90	0.0%	-0.4%	0.1%	6.0%	0.6%
Nuclear	5.48	5.50	5.50	5.49	5.49	5.53	0.1%	-0.1%	0.0%	0.7%	0.1%
Hydro & wind	1.33	1.34	1.41	1.41	1.41	1.41	1.2%	0.0%	0.1%	0.1%	0.7%
Thermal	7.36	7.19	7.24	7.14	7.16	7.96	-0.3%	-0.6%	0.2%	11.3%	0.9%
Average Load Factor in %	46.2	53.2	57.2	58.7	57.5	55.3	4.4%	1.4%	-2.1%	-3.8%	2.0%
Fuel Inputs for Thermal Power Generation	5.37	5.20	6.51	6.59	6.33	7.23	3.9%	0.6%	-3.9%	14.1%	3.4%
Solids	2.83	3.02	3.88	3.62	3.65	4.20	6.5%	-3.3%	0.8%	15.1%	4.5%
Oil	0.96	0.41	0.32	0.43	0.17	0.36	-19.9%	16.4%	-59.4%	103.6%	-10.5%
Gas	1.24	1.42	1.98	2.16	2.21	2.33	9.9%	4.4%	2.0%	5.5%	7.3%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.35	0.35	0.34	0.37	0.30	0.34	-0.7%	5.5%	-19.3%	13.8%	-0.1%
Average Thermal Efficiency in %	34.2	34.8	35.9	36.1	37.9	36.2	1.0%	0.2%	5.0%	-4.5%	0.6%
Non-Energy Uses	2.90	3.21	3.16	3.63	3.45	3.96	1.7%	7.1%	-5.0%	14.8%	3.5%
Total Final Energy Demand	29.10	30.77	30.73	33.12	32.58	33.20	1.1%	3.8%	-1.6%	1.9%	1.5%
Solids	4.46	3.74	3.79	3.75	3.28	3.68	-3.2%	-0.4%	-12.7%	12.3%	-2.1%
Oil	13.09	15.15	14.29	16.14	15.71	15.85	1.8%	6.3%	-2.6%	0.9%	2.1%
Gas	6.96	6.82	7.25	7.45	7.74	7.71	0.8%	1.4%	4.0%	-0.5%	1.1%
Electricity	4.16	4.66	4.99	5.37	5.44	5.71	3.7%	3.8%	1.3%	5.0%	3.6%
Heat	0.22	0.21	0.21	0.23	0.22	0.06	-0.6%	2.8%	-4.8%	-72.2%	-13.5%
Other	0.20	0.19	0.20	0.18	0.19	0.18	0.1%	-3.6%	1.4%	0.9%	-0.7%
CO2 Emissions in Mt of CO2 (2)	105.2	108.6	110.8	115.8	111.9	117.2	1.0%	2.2%	-3.4%	4.8%	1.2%
Indicators											
Population (Million)	9.86	9.90	9.97	10.05	10.08	10.12	0.2%	0.4%	0.4%	0.3%	0.3%
GDP (bil. ECU 1985)	105.7	114.6	122.4	127.5	125.3	128.2	3.0%	2.1%	-1.7%	2.3%	2.2%
Gross Inl Cons./GDP (toe/1985 MECU)	414.9	398.1	384.6	392.7	388.5	392.6	-1.5%	1.0%	-1.1%	1.1%	-0.6%
Gross Inl Cons./Capita (kgoe/inhabitant)	4447.4	4607.4	4724.5	4985.4	4829.3	4976.5	1.2%	2.7%	-3.1%	3.0%	1.3%
Electricity Generated/Capita (kWh/inhabitant)	5813.6	6598.4	7106.8	7192.2	7024.2	7139.5	4.1%	0.6%	-2.3%	1.6%	2.3%
CO2 Emissions/Capita (t of CO2/inhabitant)	10.7	11.0	11.1	11.5	11.1	11.6	0.8%	1.8%	-3.8%	4.5%	0.9%
Import Dependency %	69.3	72.2	75.9	78.7	77.4	79.1	1.9%	1.8%	-1.7%	2.2%	1.5%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

DENMARK : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	4.76	7.89	9.94	12.77	13.69	14.83	15.9%	13.3%	7.2%	8.4%	13.5%
Solids	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Oil	2.92	4.78	6.06	7.87	8.35	9.23	15.7%	14.0%	6.2%	10.5%	13.7%
Natural gas	0.97	2.11	2.74	3.59	3.95	4.29	23.1%	14.5%	10.1%	8.6%	18.0%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	0.01	0.03	0.05	0.08	0.09	0.10	51.1%	21.7%	12.4%	10.3%	34.5%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.5%	-3.2%	0.0%	0.0%	-0.4%
Other	0.87	0.97	1.09	1.23	1.29	1.21	4.8%	6.0%	4.7%	-6.3%	3.8%
Net Imports	15.53	11.17	9.08	7.83	6.08	6.23	-10.2%	-7.1%	-22.3%	2.6%	-9.6%
Solids	7.70	6.26	6.23	7.38	6.31	6.88	-4.1%	8.8%	-14.4%	9.0%	-1.2%
Oil	8.19	5.28	3.16	1.50	1.09	1.26	-17.3%	-31.2%	-27.0%	15.6%	-16.7%
Crude oil	4.03	3.10	2.03	1.04	0.24	-0.36	-12.8%	-28.3%	-77.4%	-253.4%	-176.5%
Oil products	4.16	2.18	1.13	0.45	0.86	1.63	-23.0%	-36.7%	89.3%	89.5%	9.9%
Natural gas	-0.40	-0.74	-0.93	-1.37	-1.43	-1.50	18.5%	21.7%	4.4%	4.6%	15.9%
Electricity	0.04	0.36	0.61	0.32	0.10	-0.42	72.6%	-27.1%	-68.4%	-508.8%	-229.9%
Gross Inland Consumption	19.51	18.84	18.20	19.30	19.64	20.16	-1.4%	3.0%	1.7%	2.7%	0.4%
Solids	7.38	6.87	6.11	6.85	7.19	7.62	-3.7%	5.9%	5.0%	6.0%	0.4%
Oil	10.65	9.21	8.55	8.69	8.55	8.96	-4.3%	0.8%	-1.6%	4.8%	-1.9%
Natural gas	0.57	1.39	1.79	2.13	2.41	2.69	25.8%	9.2%	13.4%	11.5%	18.9%
Other (1)	0.91	1.36	1.76	1.63	1.48	0.89	14.0%	-3.5%	-9.3%	-39.8%	-0.3%
Electricity Generation in TWh	29.04	27.96	25.73	30.86	33.74	40.09	-2.4%	9.5%	9.3%	18.8%	3.6%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind (including pumping)	0.08	0.33	0.64	0.94	1.06	1.17	51.1%	21.7%	12.4%	10.3%	34.5%
Thermal	28.96	27.63	25.10	29.91	32.68	38.92	-2.8%	9.2%	9.2%	19.1%	3.3%
Generation Capacity in GWe	8.57	8.44	9.14	10.04	10.35	10.46	1.3%	4.8%	3.1%	1.0%	2.2%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	0.06	0.21	0.35	0.47	0.50	0.54	43.5%	15.1%	7.3%	7.8%	28.2%
Thermal	8.52	8.24	8.79	9.57	9.85	9.92	0.6%	4.4%	2.9%	0.7%	1.7%
Average Load Factor in %	38.7	37.8	32.2	35.1	37.2	43.8	-3.6%	4.4%	6.1%	17.6%	1.4%
Fuel Inputs for Thermal Power Generation	6.92	6.59	6.04	7.20	7.75	8.76	-2.7%	9.2%	7.7%	13.0%	2.7%
Solids	6.49	6.14	5.55	6.39	6.71	7.28	-3.1%	7.3%	5.0%	8.5%	1.3%
Oil	0.35	0.32	0.25	0.33	0.32	0.58	-6.1%	15.0%	-3.8%	79.2%	5.8%
Gas	0.08	0.13	0.14	0.26	0.42	0.62	12.5%	39.0%	59.8%	47.0%	26.3%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.00	0.00	0.11	0.21	0.30	0.28	113.2%	42.6%	39.6%	-4.9%	70.0%
Average Thermal Efficiency in %	36.0	36.1	35.7	35.7	36.3	38.2	-0.2%	0.0%	1.5%	5.4%	0.7%
Non-Energy Uses	0.52	0.44	0.33	0.29	0.29	0.30	-8.7%	-5.9%	-0.7%	1.8%	-6.1%
Total Final Energy Demand	14.41	13.77	14.48	14.23	14.49	14.67	0.1%	-0.9%	1.9%	1.2%	0.2%
Solids	0.77	0.42	0.46	0.35	0.38	0.42	-9.6%	-13.1%	7.6%	10.6%	-6.6%
Oil	9.46	7.87	7.59	7.44	7.36	7.49	-4.3%	-1.0%	-1.1%	1.8%	-2.6%
Gas	0.51	0.94	1.13	1.32	1.48	1.54	17.5%	8.1%	12.4%	4.0%	13.2%
Electricity	2.18	2.41	2.52	2.60	2.63	2.67	2.9%	1.6%	1.4%	1.2%	2.3%
Heat	1.09	1.75	2.31	2.01	2.13	2.09	16.2%	-6.6%	6.2%	-2.3%	7.5%
Other	0.41	0.38	0.48	0.51	0.51	0.47	3.4%	3.1%	-0.1%	-7.3%	1.7%
CO2 Emissions in Mt of CO2 (2)	61.4	56.7	53.1	57.2	58.9	63.1	-2.9%	3.8%	2.9%	7.2%	0.3%
Indicators											
Population (Million)	5.11	5.13	5.14	5.17	5.19	5.21	0.1%	0.3%	0.3%	0.3%	0.2%
GDP (bil. ECU 1985)	76.7	80.7	82.3	84.1	85.1	88.8	1.4%	1.1%	1.2%	4.4%	1.6%
Gross Inl Cons./GDP (koe/1985 MECU)	254.4	233.6	221.3	229.4	230.7	226.9	-2.8%	1.8%	0.6%	-1.6%	-1.3%
Gross Inl Cons./Capita (kgoe/inhabitant)	3815.8	3673.2	3541.7	3732.3	3784.0	3873.8	-1.5%	2.7%	1.4%	2.4%	0.2%
Electricity Generated/Capita (kWh/inhabitant)	5679.3	5450.3	5010.4	5964.9	6500.7	7702.0	-2.5%	9.1%	9.0%	18.5%	3.4%
CO2 Emissions/Capita (t of CO2/inhabitant)	12.0	11.0	10.3	11.1	11.3	12.1	-3.0%	3.5%	2.5%	6.8%	0.1%
Import Dependency %	78.0	56.7	47.4	38.7	29.0	28.8	-9.5%	-9.6%	-25.2%	-0.6%	-10.5%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

FINLAND : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	10.61	11.35	11.18	11.75	12.33	12.72	1.1%	2.5%	4.9%	3.2%	2.0%
Solids	0.76	1.01	1.46	1.65	1.79	2.16	13.8%	6.2%	9.1%	20.4%	12.2%
Oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Nuclear	4.97	5.09	5.01	5.02	5.18	5.01	0.2%	0.2%	3.1%	-3.2%	0.1%
Hydro & Wind	1.06	1.15	0.93	1.30	1.16	1.01	-2.5%	18.1%	-11.0%	-12.5%	-0.5%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	3.82	4.10	3.79	3.78	4.20	4.54	-0.2%	-0.1%	11.1%	8.1%	1.9%
Net Imports	16.10	15.89	18.03	15.81	16.47	20.45	2.3%	-6.4%	4.2%	24.1%	2.7%
Solids	4.02	3.53	4.38	3.12	3.95	5.21	1.7%	-15.6%	26.5%	31.9%	2.9%
Oil	10.87	10.33	10.48	9.49	9.30	11.84	-0.7%	-4.8%	-2.0%	27.2%	1.0%
Crude oil	9.99	9.11	8.89	9.11	8.71	10.44	-2.3%	1.3%	-4.4%	19.8%	0.5%
Oil products	0.88	1.21	1.59	0.38	0.59	1.40	12.6%	-51.4%	58.0%	136.1%	5.4%
Natural gas	0.80	1.40	2.26	2.48	2.57	2.84	23.1%	4.7%	3.8%	10.6%	15.1%
Electricity	0.40	0.63	0.92	0.72	0.65	0.56	17.8%	-11.2%	-9.6%	-13.8%	3.8%
Gross Inland Consumption	26.24	28.08	27.91	28.05	29.04	30.36	1.2%	0.2%	3.6%	4.5%	1.6%
Solids	4.98	5.06	5.07	5.33	5.89	6.50	0.4%	2.5%	10.4%	10.5%	3.0%
Oil	10.22	10.64	9.94	9.41	9.40	9.89	-0.6%	-2.7%	-0.1%	5.2%	-0.4%
Natural gas	0.80	1.40	2.26	2.48	2.57	2.84	23.1%	4.7%	3.8%	10.6%	15.1%
Other (1)	10.25	10.98	10.64	10.82	11.19	11.12	0.8%	0.9%	3.3%	-0.6%	0.9%
Electricity Generation in TWh	49.71	53.89	54.37	57.78	61.06	65.53	1.8%	3.1%	5.7%	7.3%	3.1%
Nuclear	19.06	19.55	19.21	19.28	19.92	19.42	0.2%	0.2%	3.3%	-2.5%	0.2%
Hydro & wind (including pumping)	12.33	13.36	10.86	15.13	13.47	11.78	-2.5%	18.1%	-11.0%	-12.5%	-0.5%
Thermal	18.32	20.98	24.30	23.36	27.67	34.33	5.8%	-2.0%	18.4%	24.1%	7.2%
Generation Capacity in GWe	11.31	11.89	13.22	13.36	14.08	14.52	3.2%	0.5%	5.4%	3.1%	2.8%
Nuclear	2.30	2.35	2.36	2.36	2.36	2.31	0.5%	0.0%	0.0%	-2.1%	0.0%
Hydro & wind	2.51	2.60	2.62	2.68	2.73	2.80	0.9%	1.1%	1.9%	2.6%	1.3%
Thermal	6.51	6.95	8.24	8.32	8.99	9.41	4.8%	0.5%	8.0%	4.7%	4.2%
Average Load Factor in %	50.2	51.7	46.9	49.4	49.5	51.5	-1.3%	2.6%	0.3%	4.0%	0.3%
Fuel Inputs for Thermal Power Generation	4.18	4.82	5.15	4.85	5.80	7.20	4.3%	-3.0%	19.5%	24.2%	6.2%
Solids	2.76	3.01	3.01	2.74	3.46	4.54	1.8%	-4.6%	26.1%	31.4%	5.7%
Oil	0.17	0.34	0.29	0.21	0.24	0.29	11.6%	-14.9%	11.4%	22.1%	6.1%
Gas	0.41	0.63	1.02	1.06	1.23	1.38	19.9%	2.4%	15.6%	12.4%	14.4%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.84	0.84	0.84	0.84	0.87	0.99	0.0%	0.0%	4.6%	12.9%	1.9%
Average Thermal Efficiency in %	37.7	37.4	40.5	41.4	41.0	41.0	1.4%	1.0%	-0.9%	-0.1%	0.9%
Non-Energy Uses	1.32	1.93	1.80	2.01	1.40	2.29	6.4%	5.8%	-30.5%	63.7%	6.3%
Total Final Energy Demand	18.38	20.13	20.59	20.90	21.57	21.85	2.3%	0.8%	3.2%	1.3%	1.9%
Solids	1.27	1.16	1.17	1.47	1.51	1.14	-1.7%	12.1%	2.7%	-24.1%	-1.2%
Oil	7.33	8.01	8.06	7.74	7.69	7.73	1.9%	-2.0%	-0.8%	0.6%	0.6%
Gas	0.61	1.00	1.51	1.66	1.62	1.75	19.6%	5.0%	-2.5%	8.0%	12.3%
Electricity	4.17	4.74	5.07	5.14	5.35	5.57	4.0%	0.7%	4.2%	4.0%	3.3%
Heat	1.87	1.91	1.91	2.03	2.12	2.18	0.5%	2.9%	4.5%	2.8%	1.7%
Other	3.13	3.32	2.88	2.87	3.29	3.48	-1.7%	-0.2%	14.7%	5.7%	1.2%
CO2 Emissions in Mt of CO2 (2)	48.1	51.6	53.3	53.5	57.0	60.7	2.1%	0.2%	6.5%	6.5%	2.6%
Indicators											
Population (Million)	4.90	4.95	4.99	5.04	5.07	5.09	0.3%	0.6%	0.5%	0.4%	0.4%
GDP (bil. ECU 1985)	70.6	79.0	83.5	74.7	73.3	76.1	3.4%	-5.4%	-2.0%	3.9%	0.8%
Gross Inl Cons./GDP (toe/1985 MECU)	371.4	355.5	334.4	375.2	396.4	398.8	2.1%	5.9%	5.6%	0.6%	0.8%
Gross Inl Cons./Capita (kgoe/inhabitant)	5353.1	5676.5	5598.3	5562.5	5732.8	5966.2	0.9%	-0.3%	3.1%	4.1%	1.2%
Electricity Generated/Capita (kWh/inhabitant)	10140.2	10894.9	10906.0	11459.1	12053.5	12880.1	1.5%	2.5%	5.2%	6.9%	2.7%
CO2 Emissions/Capita (t of CO2/inhabitant)	9.8	10.4	10.7	10.6	11.2	11.9	1.7%	-0.4%	6.0%	6.0%	2.2%
Import Dependency %	60.3	55.6	63.3	55.0	55.7	66.5	1.0%	-6.8%	1.2%	19.3%	1.1%

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

(2) Given on an indicative basis; calculated using common emission factors accross all countries in the world.

FRANCE : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	90.29	100.60	106.74	114.31	120.81	122.93	3.4%	3.5%	5.7%	1.8%	3.5%
Solids	10.45	8.40	7.63	6.79	6.08	5.44	-6.1%	-5.7%	-10.4%	-10.6%	-7.0%
Oil	3.36	3.44	3.49	3.44	3.33	3.35	0.8%	-0.7%	-3.3%	0.7%	0.0%
Natural gas	4.54	2.61	2.42	2.78	2.88	2.89	-11.8%	7.2%	3.6%	0.2%	-4.9%
Nuclear	57.27	70.18	79.13	83.74	91.32	92.86	6.7%	2.9%	9.1%	1.7%	5.5%
Hydro & Wind	5.38	6.64	4.64	6.00	5.63	6.82	-2.9%	13.7%	-6.2%	21.3%	2.7%
Geothermal	0.08	0.12	0.12	0.13	0.12	0.12	9.2%	0.3%	-2.8%	0.0%	4.7%
Other	9.21	9.21	9.31	11.43	11.45	11.45	0.2%	10.8%	0.2%	0.0%	2.4%
Net Imports	111.81	110.53	120.02	123.94	115.62	110.23	1.4%	1.6%	-6.7%	-4.7%	-0.2%
Solids	12.55	7.81	13.00	14.56	9.30	8.07	0.7%	5.8%	-36.1%	-13.2%	-4.8%
Oil	81.08	84.52	86.55	87.40	86.29	81.36	1.3%	0.5%	-1.3%	-5.7%	0.0%
Crude oil	75.98	74.73	76.00	76.48	77.87	76.59	0.0%	0.3%	1.8%	-1.6%	0.1%
Oil products	5.10	9.79	10.55	10.92	8.42	4.77	15.7%	1.7%	-22.9%	-43.4%	-0.7%
Natural gas	20.18	21.38	24.37	26.61	25.31	26.23	3.8%	4.5%	-4.9%	3.6%	3.0%
Electricity	-2.01	-3.18	-3.91	-4.63	-5.28	-5.43	14.2%	8.8%	14.2%	2.8%	11.7%
Gross Inland Consumption	202.50	209.46	221.79	232.80	234.98	230.51	1.8%	2.5%	0.9%	-1.9%	1.4%
Solids	24.40	18.27	19.95	18.79	14.88	14.36	-3.9%	-3.0%	-20.8%	-3.5%	-5.7%
Oil	83.90	84.47	87.67	89.28	87.90	82.50	0.9%	0.9%	-1.5%	-6.1%	-0.2%
Natural gas	24.27	23.74	24.88	28.07	28.96	27.82	0.5%	6.2%	3.2%	-3.9%	1.5%
Other (1)	69.93	82.98	89.29	96.67	103.24	105.82	5.0%	4.0%	6.8%	2.5%	4.7%
Electricity Generation in TWh	344.24	391.86	420.08	464.07	473.09	477.61	4.1%	5.1%	1.9%	1.0%	3.7%
Nuclear	224.06	275.47	314.02	338.38	368.12	359.92	7.0%	3.8%	8.8%	-2.2%	5.4%
Hydro & wind (including pumping)	64.25	78.77	57.91	74.40	69.61	83.08	-2.1%	13.3%	-6.4%	19.3%	2.9%
Thermal	55.92	37.62	48.14	51.29	35.36	34.62	-3.0%	3.2%	-31.1%	-2.1%	-5.2%
Generation Capacity in GWe	86.64	100.41	103.06	105.04	107.44	107.01	3.5%	1.0%	2.3%	-0.4%	2.4%
Nuclear	37.49	52.43	55.75	57.68	59.02	58.52	8.3%	1.7%	2.3%	-0.9%	5.1%
Hydro & wind	21.91	24.45	24.64	24.88	24.96	25.01	2.4%	0.5%	0.3%	0.2%	1.5%
Thermal	27.25	23.54	22.67	22.48	23.46	23.48	-3.6%	-0.4%	4.4%	0.1%	-1.6%
Average Load Factor in %	45.4	44.5	46.5	50.4	50.3	51.0	0.5%	4.1%	-0.3%	1.4%	1.3%
Fuel Inputs for Thermal Power Generation	12.18	8.58	10.94	10.91	7.24	6.96	-2.1%	-0.2%	-33.6%	-3.9%	-6.0%
Solids	9.33	5.86	7.34	7.63	4.98	4.72	-4.7%	2.0%	-34.7%	-5.2%	-7.3%
Oil	1.16	1.13	1.92	1.74	0.63	0.56	10.6%	-4.7%	-64.1%	-9.7%	-7.7%
Gas	1.53	1.41	1.42	1.24	1.32	1.36	-1.5%	-6.8%	6.5%	3.0%	-1.4%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	0.0%	0.0%	0.0%	0.0%
Other	0.16	0.19	0.26	0.30	0.32	0.32	10.3%	7.6%	6.0%	0.0%	8.0%
Average Thermal Efficiency in %	39.5	37.7	37.8	40.4	42.0	42.8	-0.8%	3.4%	3.8%	1.8%	0.9%
Non-Energy Uses	11.91	12.63	13.10	16.32	14.95	15.50	1.9%	11.6%	-8.4%	3.7%	3.0%
Total Final Energy Demand	130.17	131.86	135.58	143.49	144.83	141.00	0.8%	2.9%	0.9%	-2.6%	0.9%
Solids	10.93	9.41	9.10	8.42	7.21	6.94	-3.6%	-3.8%	-14.4%	-3.7%	-4.9%
Oil	65.80	66.63	67.57	68.89	70.35	67.63	0.5%	1.0%	2.1%	-3.9%	0.3%
Gas	22.71	22.51	23.69	26.47	27.28	26.17	0.8%	5.7%	3.1%	-4.1%	1.6%
Electricity	21.75	24.09	25.96	28.38	28.57	28.85	3.6%	4.6%	0.7%	1.0%	3.2%
Heat	0.52	0.60	0.69	0.75	0.84	0.83	6.0%	4.0%	12.3%	-1.5%	5.4%
Other	8.45	8.62	8.56	10.58	10.58	10.58	0.3%	11.2%	0.0%	0.0%	2.5%
CO2 Emissions in Mt of CO2 (2)	376.2	355.9	369.1	376.1	363.9	352.8	-0.4%	0.9%	-3.2%	-3.1%	-0.7%
Indicators											
Population (Million)	55.28	56.12	56.74	57.37	57.66	57.90	0.5%	0.6%	0.5%	0.4%	0.5%
GDP (bil. ECU 1985)	691.7	754.4	801.7	816.2	808.0	829.8	3.0%	0.9%	-1.0%	2.7%	2.0%
Gross Inl Cons./GDP (toe/1985 MECU)	292.8	277.6	276.7	285.2	290.8	277.8	-1.1%	1.5%	2.0%	-4.5%	-0.6%
Gross Inl Cons./Capita (kgoe/inhabitant)	3662.9	3732.5	3909.3	4057.6	4075.6	3980.9	1.3%	1.9%	0.4%	-2.3%	0.9%
Electricity Generated/Capita (kWh/inhabitant)	6226.7	6982.7	7404.2	8088.5	8205.5	8248.5	3.5%	4.5%	1.4%	0.5%	3.2%
CO2 Emissions/Capita (t of CO2/inhabitant)	6.8	6.3	6.5	6.6	6.3	6.1	-0.9%	0.4%	-3.7%	-3.5%	-1.2%
Import Dependency %	54.6	52.2	53.5	52.7	48.7	47.4	-0.4%	0.8%	-7.5%	-2.7%	-1.6%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

GERMANY : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	209.86	204.04	191.06	159.73	148.24	141.21	-1.9%	-8.6%	-7.2%	-4.7%	-4.3%
Solids	148.79	138.99	129.87	97.60	87.73	80.91	-2.7%	-13.3%	-10.1%	-7.8%	-6.5%
Oil	4.40	5.13	4.25	3.55	3.31	3.20	-0.7%	-8.6%	-6.7%	-3.3%	-3.5%
Natural gas	16.14	15.12	13.56	13.72	13.75	14.27	-3.4%	0.6%	0.2%	3.7%	-1.4%
Nuclear	34.80	38.79	37.59	39.00	37.54	36.84	1.6%	1.9%	-3.7%	-1.9%	0.6%
Hydro & Wind	1.35	1.38	1.38	1.50	1.53	1.62	0.5%	4.2%	2.0%	5.6%	2.0%
Geothermal	0.07	0.11	0.09	0.01	0.01	0.01	5.8%	-69.7%	0.0%	0.0%	-20.9%
Other	4.30	4.31	4.31	4.35	4.36	4.36	0.0%	0.5%	0.2%	0.0%	0.1%
Net Imports	153.16	164.39	164.96	186.91	189.57	193.06	1.5%	6.4%	1.4%	1.8%	2.6%
Solids	0.70	2.87	3.19	9.99	10.17	10.82	35.3%	77.1%	1.8%	6.4%	35.5%
Oil	117.86	123.69	119.96	133.01	131.95	132.42	0.4%	5.3%	-0.8%	0.4%	1.3%
Crude oil	83.69	91.23	88.36	99.52	100.44	106.19	1.1%	6.1%	0.9%	5.7%	2.7%
Oil products	34.18	32.45	31.60	33.50	31.51	26.23	-1.6%	3.0%	-5.9%	-16.8%	-2.9%
Natural gas	34.36	37.67	41.75	44.36	47.38	49.63	4.0%	3.1%	6.8%	4.7%	4.2%
Electricity	0.23	0.18	0.07	-0.46	0.07	0.20	-21.6%	-	-116.3%	168.9%	-1.4%
Gross Inland Consumption	359.25	363.98	358.99	337.72	335.57	333.89	0.0%	-3.0%	-0.6%	-0.5%	-0.8%
Solids	149.58	140.99	136.99	104.73	99.35	96.59	-1.7%	-12.6%	-5.1%	-2.8%	-4.7%
Oil	119.59	124.86	123.55	131.78	133.01	133.08	0.7%	3.3%	0.9%	0.0%	1.2%
Natural gas	49.34	53.16	55.01	56.80	59.69	61.19	2.2%	1.6%	5.1%	2.5%	2.4%
Other (1)	40.75	44.97	43.44	44.41	43.52	43.03	1.3%	1.1%	-2.0%	-1.1%	0.6%
Electricity Generation in TWh	520.84	547.92	548.59	537.14	525.63	526.81	1.0%	-1.0%	-2.1%	0.2%	0.1%
Nuclear	138.61	156.79	152.43	158.78	153.45	151.18	1.9%	2.1%	-3.4%	-1.5%	1.0%
Hydro & wind (including pumping)	17.77	20.99	18.54	21.25	21.59	22.76	0.8%	7.1%	1.6%	5.3%	2.8%
Thermal	364.46	370.14	377.61	357.11	350.59	352.89	0.7%	-2.8%	-1.8%	0.7%	-0.4%
Generation Capacity in GWe	114.65	119.41	121.11	115.43	114.38	114.31	1.1%	-2.4%	-0.9%	-0.1%	0.0%
Nuclear	17.93	23.32	24.24	22.61	22.66	22.71	6.2%	-3.4%	0.2%	0.2%	2.7%
Hydro & wind	8.51	8.70	8.70	8.68	8.89	8.93	0.4%	-0.1%	2.4%	0.5%	0.5%
Thermal	88.21	87.39	88.18	84.15	82.83	82.67	0.0%	-2.3%	-1.6%	-0.2%	-0.7%
Average Load Factor in %	51.9	52.4	51.7	53.1	52.5	52.6	-0.1%	1.4%	-1.2%	0.3%	0.2%
Fuel Inputs for Thermal Power Generation	90.33	90.81	90.98	89.56	85.63	84.86	0.1%	-0.8%	-4.4%	-0.9%	-0.7%
Solids	76.69	75.54	74.83	74.54	73.31	71.51	-0.5%	-0.2%	-1.7%	-2.5%	-0.8%
Oil	3.38	3.47	3.07	3.73	2.50	2.46	-1.9%	10.3%	-33.1%	-1.3%	-3.5%
Gas	8.37	9.91	11.20	9.41	7.96	9.01	6.0%	-8.4%	-15.6%	13.5%	0.8%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	0.0%	0.0%	0.0%	0.0%
Other	1.89	1.89	1.88	1.88	1.88	1.88	-0.1%	0.1%	0.0%	0.0%	0.0%
Average Thermal Efficiency in %	34.7	35.1	35.7	34.3	35.2	35.8	0.6%	-2.0%	2.7%	1.6%	0.3%
Non-Energy Uses	21.88	21.98	21.71	21.33	20.97	22.53	-0.1%	-0.9%	-1.7%	7.4%	0.3%
Total Final Energy Demand	238.05	241.23	237.25	222.51	226.00	220.80	-0.1%	-3.2%	1.6%	-2.3%	-0.8%
Solids	54.42	49.16	47.76	20.19	17.47	16.55	-2.6%	-35.0%	-13.4%	-5.3%	-12.4%
Oil	96.09	99.81	96.72	104.39	106.58	104.00	0.1%	3.9%	2.1%	-2.4%	0.9%
Gas	45.05	47.48	46.59	50.44	53.53	51.61	0.7%	4.1%	6.1%	-3.6%	1.5%
Electricity	37.19	39.33	39.12	38.77	37.91	38.14	1.0%	-0.4%	-2.2%	0.6%	0.3%
Heat	2.82	2.92	4.53	6.24	8.01	8.01	10.0%	17.4%	28.3%	0.0%	12.3%
Other	2.49	2.53	2.53	2.48	2.49	2.49	0.3%	-0.9%	0.3%	0.0%	0.0%
CO2 Emissions in Mt of CO2 (2)	1048.4	1038.2	1014.3	932.9	917.4	896.9	-0.7%	-4.1%	-1.7%	-2.2%	-1.7%
Indicators											
Population (Million)	77.67	78.11	79.37	80.59	81.18	81.41	0.4%	0.8%	0.7%	0.3%	0.5%
GDP (bil. ECU 1985)	901.49	968.35	1036.97	1075.85	1063.75	1094.60	2.8%	1.9%	-1.1%	2.9%	2.2%
Gross Inl Cons./GDP (toe/1985 MECU)	398.5	375.9	346.2	313.9	315.5	305.0	-2.8%	-4.8%	0.5%	-3.3%	-2.9%
Gross Inl Cons./Capita (kgoe/inhabitant)	4625.4	4660.0	4523.2	4190.4	4133.6	4101.3	-0.4%	-3.7%	-1.4%	-0.8%	-1.3%
Electricity Generated/Capita (kWh/inhabitant)	6705.8	7015.1	6912.2	6664.8	6474.9	6471.0	0.6%	-1.8%	-2.8%	-0.1%	-0.4%
CO2 Emissions/Capita (t of CO2/inhabitant)	13.5	13.3	12.8	11.6	11.3	11.0	-1.1%	-4.8%	-2.4%	-2.5%	-2.2%
Import Dependency %	42.2	44.8	45.6	55.1	56.1	57.5	1.6%	9.8%	1.9%	2.4%	3.5%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given as an indicative basis; calculated using common emission factors accross all countries in the world.

GREECE : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	7.89	9.17	9.67	9.49	9.31	9.67	4.2%	-1.0%	-1.8%	3.8%	2.3%
Solids	4.84	6.29	7.08	7.00	6.96	7.36	7.9%	-0.6%	-0.5%	5.7%	4.8%
Oil	1.32	1.12	0.83	0.69	0.56	0.53	-8.8%	-9.0%	-18.4%	-5.2%	-9.6%
Natural gas	0.07	0.13	0.14	0.13	0.09	0.05	14.0%	-4.3%	-26.3%	-48.8%	-4.4%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	0.24	0.20	0.15	0.19	0.20	0.23	-8.8%	11.7%	5.4%	13.2%	-0.7%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	14.9%	6.7%	5.4%	33.5%	13.8%
Other	1.41	1.43	1.47	1.49	1.49	1.50	0.8%	0.5%	0.4%	0.2%	0.6%
Net Imports	11.81	13.62	15.37	17.74	17.24	15.80	5.4%	7.4%	-2.9%	-8.3%	3.3%
Solids	1.23	0.86	0.99	1.40	0.88	0.98	-4.3%	19.0%	-36.8%	11.2%	-2.5%
Oil	10.52	12.74	14.32	16.29	16.28	14.78	6.4%	6.6%	-0.1%	-9.2%	3.9%
Crude oil	10.54	14.39	14.71	15.82	13.56	14.45	6.9%	3.7%	-14.3%	6.6%	3.6%
Oil products	-0.02	-1.65	-0.39	0.47	2.72	0.33	83.4%	-	482.6%	-87.8%	-
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Electricity	0.06	0.03	0.06	0.05	0.07	0.03	-0.7%	-7.8%	33.7%	-52.8%	-7.1%
Gross Inland Consumption	18.89	20.71	22.77	23.56	23.12	24.13	3.8%	1.7%	-1.8%	4.4%	2.8%
Solids	6.08	7.42	8.09	8.18	7.96	8.48	5.9%	0.6%	-2.7%	6.4%	3.8%
Oil	11.01	11.50	12.85	13.52	13.30	13.85	3.1%	2.6%	-1.6%	4.1%	2.6%
Natural gas	0.07	0.13	0.14	0.13	0.09	0.05	14.0%	-4.3%	-26.3%	-48.8%	-4.4%
Other (1)	1.72	1.66	1.69	1.73	1.77	1.76	0.4%	1.3%	2.0%	-0.3%	0.3%
Electricity Generation in TWh	27.74	33.40	34.99	37.40	38.39	40.62	4.8%	3.4%	2.6%	5.8%	4.3%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind (including pumping)	2.80	2.60	2.00	2.39	2.59	2.88	6.6%	9.5%	8.0%	11.3%	0.3%
Thermal	24.93	30.79	33.00	35.01	35.80	37.74	5.8%	3.0%	2.3%	5.4%	4.7%
Generation Capacity in GWe	7.12	8.12	8.51	8.92	8.79	8.92	3.6%	2.4%	-1.5%	1.5%	2.3%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	2.03	2.15	2.41	2.53	2.55	2.55	3.5%	2.5%	0.6%	0.1%	2.6%
Thermal	5.08	5.97	6.10	6.39	6.24	6.37	3.7%	2.4%	-2.3%	2.1%	2.3%
Average Load Factor in %	44.5	47.0	47.0	47.8	49.9	52.0	1.1%	0.9%	4.2%	4.2%	1.7%
Fuel Inputs for Thermal Power Generation	6.44	7.71	8.72	8.96	8.97	9.49	6.2%	1.4%	0.1%	5.8%	4.4%
Solids	4.81	6.23	6.89	6.98	6.96	7.49	7.5%	0.7%	-0.3%	7.6%	5.0%
Oil	1.64	1.47	1.80	1.96	2.00	1.99	1.9%	4.5%	1.7%	0.6%	2.2%
Gas	0.00	0.02	0.03	0.01	0.01	0.01	-	-31.4%	0.9%	0.3%	-
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Average Thermal Efficiency in %	33.3	34.3	32.5	33.6	34.3	34.2	0.4%	1.6%	2.1%	-0.3%	0.3%
Non-Energy Uses	0.54	0.52	0.64	0.52	0.47	0.36	3.2%	-9.9%	-8.1%	-24.7%	-4.6%
Total Final Energy Demand	13.05	14.25	15.06	15.48	15.73	15.91	2.9%	1.4%	1.6%	1.2%	2.2%
Solids	1.28	1.20	1.07	1.04	1.10	1.09	-3.5%	-1.6%	6.4%	-0.8%	-1.7%
Oil	8.29	9.29	10.05	10.29	10.43	10.49	3.9%	1.2%	1.3%	0.6%	2.6%
Gas	0.01	0.01	0.01	0.01	0.01	0.01	11.2%	0.4%	-1.2%	-9.5%	4.9%
Electricity	2.05	2.31	2.45	2.64	2.68	2.81	3.6%	3.8%	1.6%	4.9%	3.6%
Heat	0.00	0.00	0.00	0.00	0.00	0.00	14.9%	6.7%	5.4%	33.5%	13.8%
Other	1.41	1.43	1.47	1.49	1.50	1.50	0.8%	0.5%	0.4%	0.2%	0.6%
CO2 Emissions in Mt of CO2 (2)	58.3	67.5	73.1	74.5	75.4	78.0	4.6%	1.0%	1.1%	3.4%	3.3%
Indicators											
Population (Million)	9.93	10.04	10.16	10.32	10.38	10.43	0.5%	0.8%	0.6%	0.5%	0.5%
GDP (bil. ECU 1985)	52.4	55.4	57.1	59.4	59.1	59.8	1.7%	2.0%	-0.5%	1.2%	1.5%
Gross Inl Cons./GDP (toe/1985 MECU)	360.2	374.1	399.0	396.7	391.3	403.5	2.1%	-0.3%	-1.4%	3.1%	1.3%
Gross Inl Cons./Capita (kgoe/inhabitant)	1901.3	2063.7	2240.7	2282.1	2227.8	2314.3	3.3%	0.9%	-2.4%	3.9%	2.2%
Electricity Generated/Capita (kWh/inhabitant)	2791.9	3327.6	3444.4	3623.6	3698.7	3895.6	4.3%	2.6%	2.1%	5.3%	3.8%
CO2 Emissions/Capita (t of CO2/inhabitant)	5.9	6.7	7.2	7.2	7.3	7.5	4.2%	0.2%	0.6%	2.9%	2.7%
Import Dependency %	59.1	59.8	60.8	67.7	65.7	57.6	0.6%	5.5%	-2.9%	-12.3%	-0.3%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

IRLANDE : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	2.86	3.31	3.50	3.08	3.29	3.37	4.1%	-6.1%	6.7%	2.4%	1.8%
Solids	0.76	1.53	1.43	1.02	0.97	1.00	13.4%	-15.6%	-4.9%	2.8%	3.0%
Oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Natural gas	1.94	1.63	1.89	1.90	2.16	2.19	-0.5%	0.1%	13.6%	1.7%	1.4%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	0.07	0.07	0.06	0.07	0.07	0.08	-3.4%	8.3%	-4.5%	20.3%	1.4%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	0.0%	0.0%	-
Other	0.08	0.08	0.11	0.09	0.09	0.09	5.2%	-7.7%	1.9%	0.0%	1.2%
Net Imports	5.32	6.26	7.08	6.69	6.81	7.05	5.9%	-2.8%	1.7%	3.5%	3.2%
Solids	1.26	2.29	2.08	1.94	1.87	1.54	10.5%	-3.5%	-3.3%	-17.8%	2.2%
Oil	4.06	3.97	5.01	4.76	4.93	5.51	4.3%	-2.5%	3.7%	11.7%	3.4%
Crude oil	1.25	1.38	2.02	2.01	1.90	2.33	10.0%	-0.1%	-5.7%	22.7%	7.1%
Oil products	2.81	2.59	2.99	2.74	3.03	3.18	1.2%	-4.2%	10.6%	4.8%	1.4%
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-44.2%	-
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Gross Inland Consumption	8.83	9.52	10.19	10.17	10.07	10.70	2.9%	0.1%	-0.9%	6.2%	2.2%
Solids	2.58	3.69	3.53	3.33	2.93	2.76	6.5%	-2.9%	-12.1%	-6.0%	0.7%
Oil	4.15	4.05	4.60	4.77	4.82	5.58	2.1%	1.9%	1.0%	15.6%	3.4%
Natural gas	1.95	1.63	1.89	1.90	2.16	2.19	-0.5%	0.1%	13.6%	1.7%	1.3%
Other (1)	0.15	0.16	0.17	0.16	0.16	0.17	1.6%	-1.7%	-0.9%	8.5%	1.3%
Electricity Generation in TWh	12.09	13.23	14.51	16.00	16.39	17.10	3.7%	5.0%	2.4%	4.3%	3.9%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind (including pumping)	1.18	1.20	0.98	1.05	1.03	1.22	-3.6%	3.4%	-2.2%	18.4%	0.3%
Thermal	10.91	12.02	13.53	14.95	15.37	15.89	4.4%	5.1%	2.8%	3.4%	4.3%
Generation Capacity in GWe	3.20	3.81	3.81	3.93	3.93	3.91	3.6%	1.6%	0.0%	-0.6%	2.3%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	0.52	0.51	0.51	0.52	0.52	0.52	-0.1%	0.9%	0.0%	0.4%	0.2%
Thermal	2.68	3.30	3.29	3.41	3.41	3.39	4.2%	1.8%	0.0%	0.7%	2.6%
Average Load Factor in %	43.2	39.6	43.5	46.5	47.6	49.9	0.2%	3.3%	2.4%	4.9%	1.6%
Fuel Inputs for Thermal Power Generation	2.64	2.82	2.95	3.41	3.51	3.63	2.2%	7.3%	2.9%	3.4%	3.6%
Solids	0.83	1.82	1.77	2.09	1.94	1.98	16.3%	8.5%	-7.0%	1.9%	10.1%
Oil	0.54	0.25	0.34	0.57	0.56	0.64	-8.8%	29.6%	-1.7%	15.1%	2.0%
Gas	1.27	0.75	0.84	0.75	1.01	1.01	-7.9%	-5.3%	33.6%	-0.2%	-2.6%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Average Thermal Efficiency in %	35.5	36.7	39.4	37.7	37.7	37.7	2.1%	-2.2%	-0.1%	0.0%	0.7%
Non-Energy Uses	0.53	0.58	0.61	0.60	0.61	0.68	3.1%	-1.0%	1.2%	10.7%	2.8%
Total Final Energy Demand	6.22	6.71	7.22	7.21	6.94	7.36	3.0%	0.0%	-3.8%	6.0%	1.9%
Solids	1.77	1.87	1.68	1.25	0.95	0.76	-1.0%	-13.7%	-23.7%	-20.3%	-9.0%
Oil	3.24	3.43	3.84	4.05	4.02	4.58	3.4%	2.7%	-0.7%	13.9%	3.9%
Gas	0.29	0.41	0.57	0.69	0.71	0.71	14.9%	9.4%	3.1%	0.0%	10.6%
Electricity	0.84	0.92	1.02	1.14	1.17	1.22	4.0%	5.5%	2.6%	4.4%	4.2%
Heat	0.00	0.00	0.00	0.00	0.00	0.00	-	-	0.0%	0.0%	-
Other	0.08	0.08	0.11	0.09	0.09	0.09	5.2%	-8.1%	1.5%	0.0%	1.1%
CO2 Emissions in Mt of CO2 (2)	26.4	29.4	30.7	31.6	30.3	31.7	3.1%	1.5%	-4.3%	4.6%	2.1%
Indicators											
Population (Million)	3.54	3.53	3.51	3.55	3.56	3.57	-0.2%	0.6%	0.4%	0.2%	0.1%
GDP (bil. ECU 1985)	25.1	28.4	33.2	35.8	37.2	39.6	5.7%	3.9%	4.0%	6.3%	5.2%
Gross Inl Cons./GDP (toe/1985 MECU)	351.8	335.0	307.4	283.9	270.5	270.3	-2.7%	-3.9%	-4.7%	-0.1%	-2.9%
Gross Inl Cons./Capita (kgoe/inhabitant)	2494.6	2697.3	2907.2	2865.2	2827.1	2996.6	3.1%	-0.7%	-1.3%	6.0%	2.1%
Electricity Generated/Capita (kWh/inhabitant)	3414.1	3745.6	4139.3	4510.6	4600.9	4789.1	3.9%	4.4%	2.0%	4.1%	3.8%
CO2 Emissions/Capita (t of CO2/inhabitant)	7.4	8.3	8.8	8.9	8.5	8.9	3.3%	0.9%	-4.7%	4.3%	2.0%
Import Dependency %	60.1	65.6	69.4	65.7	67.2	65.6	2.9%	-2.7%	2.3%	-2.4%	1.0%

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

(2) Given on an indicative basis; calculated using common emission factors accross all countries in the world.

ITALY : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	23,91	26,41	26,38	27,80	28,93	30,04	2,0%	2,6%	4,1%	3,9%	2,6%
Solids	0,33	0,29	0,34	0,27	0,17	0,07	0,3%	-10,4%	-35,7%	-61,2%	-16,2%
Oil	2,41	4,86	4,70	4,51	4,66	4,93	14,3%	-2,1%	3,5%	5,6%	8,3%
Natural gas	11,54	13,50	14,03	14,73	15,68	16,55	4,0%	2,5%	6,4%	5,5%	4,1%
Nuclear	1,98	0,00	0,00	0,00	0,00	0,00	-100,0%	0,0%	0,0%	0,0%	-100,0%
Hydro & Wind	3,53	3,50	2,72	3,63	3,56	3,84	-5,1%	15,5%	-1,8%	7,8%	0,9%
Geothermal	1,70	1,84	2,07	2,17	2,35	2,20	4,1%	2,3%	8,2%	-6,2%	2,9%
Other	2,42	2,42	2,52	2,49	2,50	2,46	0,8%	-0,6%	0,5%	-1,5%	0,2%
Net Imports	114,41	120,25	131,96	134,22	127,19	125,82	2,9%	0,9%	-5,2%	-1,1%	1,1%
Solids	14,77	13,24	13,79	12,07	9,59	10,85	-1,4%	-6,5%	-20,5%	13,1%	-3,4%
Oil	81,57	84,81	89,88	90,84	87,46	87,53	2,0%	0,5%	-3,7%	0,1%	0,8%
Crude oil	75,20	78,25	84,28	89,57	86,91	85,45	2,3%	3,1%	-3,0%	-1,7%	1,4%
Oil products	6,36	6,56	5,60	1,27	0,54	2,09	-2,5%	-52,4%	-57,2%	284,2%	-11,7%
Natural gas	16,04	19,51	25,31	28,28	26,75	24,20	9,6%	5,7%	-5,4%	-9,5%	4,7%
Electricity	2,04	2,69	2,98	3,04	3,39	3,23	7,9%	0,9%	11,7%	-4,6%	5,3%
Gross Inland Consumption	135,03	146,01	153,76	157,60	155,05	152,82	2,6%	1,2%	-1,6%	-1,4%	1,4%
Solids	15,16	13,92	14,64	12,19	10,45	11,39	-0,7%	-8,7%	-14,3%	9,1%	-3,1%
Oil	81,01	88,08	89,81	92,97	90,86	89,15	2,1%	1,7%	-2,3%	-1,9%	1,1%
Natural gas	27,20	33,57	39,02	41,11	41,95	40,54	7,5%	2,7%	2,0%	-3,4%	4,5%
Other (1)	11,66	10,44	10,29	11,32	11,80	11,74	-2,5%	4,9%	4,2%	-0,5%	0,1%
Electricity Generation in TWh	185,71	203,52	216,85	226,20	222,75	231,76	3,1%	2,1%	-1,5%	4,0%	2,5%
Nuclear	7,02	0,00	0,00	0,00	0,00	0,00	-100,0%	0,0%	0,0%	0,0%	-100,0%
Hydro & wind (including pumping)	44,59	43,54	35,07	45,78	44,48	47,72	4,7%	14,2%	-2,8%	7,3%	0,8%
Thermal	134,10	159,99	181,78	180,42	178,27	184,04	6,3%	-0,4%	-1,2%	3,2%	3,6%
Generation Capacity in GWe	55,63	56,74	56,55	61,63	63,49	64,14	0,3%	4,4%	3,0%	1,0%	1,6%
Nuclear	1,27	1,12	0,00	0,00	0,00	0,00	-100,0%	0,0%	0,0%	0,0%	-100,0%
Hydro & wind	17,82	17,94	18,77	19,35	19,67	19,75	1,0%	1,5%	1,6%	0,4%	1,1%
Thermal	36,54	37,69	37,78	42,27	43,82	44,40	0,7%	5,8%	3,6%	1,3%	2,2%
Average Load Factor in %	38,1	40,9	43,8	41,9	40,1	41,2	2,8%	-2,2%	-4,4%	3,0%	0,9%
Fuel Inputs for Thermal Power Generation	30,06	35,40	39,79	38,97	38,60	39,23	5,8%	-1,0%	-1,0%	1,7%	3,0%
Solids	5,92	6,68	7,07	4,72	3,65	4,37	3,6%	-18,3%	-22,7%	19,7%	-3,3%
Oil	16,20	19,14	21,53	23,94	23,50	23,77	5,8%	5,5%	-1,9%	1,2%	4,4%
Gas	5,92	7,41	8,90	7,95	8,89	8,72	8,5%	-5,5%	11,8%	-2,0%	4,4%
Geothermal	1,70	1,84	1,87	1,98	2,13	1,99	2,0%	2,8%	7,7%	-6,8%	1,7%
Other	0,32	0,32	0,41	0,38	0,43	0,39	5,2%	-3,8%	12,0%	-8,7%	2,2%
Average Thermal Efficiency in %	38,4	38,9	39,3	39,8	39,7	40,3	0,5%	0,7%	-0,2%	1,6%	0,6%
Non-Energy Uses	8,41	10,14	9,84	13,07	12,38	12,91	3,2%	15,2%	-5,2%	4,2%	4,9%
Total Final Energy Demand	95,46	103,95	109,57	110,31	112,69	110,87	2,8%	0,3%	2,2%	-1,6%	1,7%
Solids	5,12	3,86	4,28	4,56	4,20	4,31	-3,6%	3,3%	-7,9%	2,5%	-1,9%
Oil	52,58	55,37	54,69	52,27	53,93	52,36	0,8%	-2,2%	3,2%	-2,9%	0,0%
Gas	20,74	25,39	29,68	31,81	32,81	31,84	7,4%	3,5%	3,1%	-2,9%	4,9%
Electricity	14,93	17,03	18,41	19,16	19,24	19,86	4,3%	2,0%	0,4%	3,2%	3,2%
Heat	0,00	0,00	0,20	0,20	0,22	0,22	-	0,0%	7,9%	0,0%	-
Other	2,09	2,09	2,31	2,31	2,29	2,29	2,0%	0,0%	-0,8%	0,0%	1,0%
CO2 Emissions in Mt of CO2 (2)	350,3	379,2	401,5	392,3	396,1	392,5	2,8%	-1,2%	1,0%	-0,9%	1,3%
Indicators											
Population (Million)	56,61	56,63	56,72	56,86	57,05	57,19	0,0%	0,1%	0,3%	0,3%	0,1%
GDP (bil. ECU 1985)	559,8	618,4	650,1	662,9	658,5	672,9	3,0%	1,0%	0,7%	2,2%	2,1%
Gross Inl Cons./GDP (toe/1985 MECU)	241,2	236,1	236,5	237,8	235,5	227,1	0,4%	0,3%	-1,0%	-3,6%	-0,7%
Gross Inl Cons./Capita (kgoe/inhabitant)	2385,4	2578,1	2710,8	2771,7	2717,9	2671,9	2,6%	1,1%	-1,9%	-1,7%	1,3%
Electricity Generated/Capita (kWh/inhabitant)	3280,7	3593,7	3823,1	3978,3	3904,5	4052,3	3,1%	2,0%	-1,9%	3,8%	2,4%
CO2 Emissions/Capita (t of CO2/inhabitant)	6,2	6,7	7,1	6,9	6,9	6,9	2,7%	-1,3%	0,6%	-1,2%	1,2%
Import Dependency %	82,6	80,7	84,4	83,9	80,8	81,1	0,4%	-0,3%	-3,7%	0,4%	-0,2%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors accross all countries in the world.

LUXEMBOURG : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	0.04	0.05	0.04	0.05	0.05	0.05	1.4%	5.6%	-2.9%	8.3%	2.6%
Solids	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	0.01	0.01	0.01	0.01	0.01	0.01	2.2%	1.5%	-4.3%	76.1%	5.0%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.03	0.04	0.04	0.04	0.04	0.04	2.0%	6.3%	-2.7%	-1.4%	2.0%
Net Imports	3.10	3.09	3.52	3.77	3.78	3.71	2.5%	3.5%	0.2%	-1.9%	2.0%
Solids	1.42	1.10	1.13	1.01	1.04	0.90	-4.5%	-5.6%	3.3%	-13.0%	-4.9%
Oil	1.07	1.32	1.62	1.95	1.90	1.93	8.6%	9.8%	-2.5%	1.3%	6.7%
Crude oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Oil products	1.07	1.32	1.62	1.95	1.90	1.93	8.6%	9.8%	-2.5%	1.3%	6.7%
Natural gas	0.30	0.35	0.43	0.47	0.48	0.49	7.2%	4.1%	3.9%	0.9%	5.4%
Electricity	0.30	0.32	0.34	0.34	0.35	0.38	2.0%	0.9%	1.8%	10.0%	2.6%
Gross Inland Consumption	3.13	3.16	3.55	3.79	3.84	3.75	2.6%	3.4%	1.4%	-2.3%	2.1%
Solids	1.42	1.10	1.13	1.01	1.04	0.90	-4.5%	-5.6%	3.3%	-13.0%	-4.9%
Oil	1.06	1.34	1.61	1.93	1.92	1.93	8.8%	9.4%	0.2%	0.3%	6.9%
Natural gas	0.30	0.35	0.43	0.47	0.48	0.49	7.2%	4.1%	3.9%	0.9%	5.4%
Other (1)	0.34	0.37	0.38	0.39	0.39	0.43	1.9%	1.4%	1.3%	9.8%	2.6%
Electricity Generation in TWh	0.94	1.33	1.38	1.20	1.07	1.19	8.0%	-6.8%	-10.9%	11.5%	2.7%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind (including pumping)	0.50	0.81	0.82	0.61	0.46	0.69	10.4%	-13.9%	-23.8%	48.6%	3.6%
Thermal	0.44	0.52	0.56	0.59	0.60	0.50	5.0%	2.7%	2.4%	-16.9%	1.5%
Generation Capacity in GWe	1.24	1.24	1.24	1.24	1.24	1.24	0.0%	0.0%	0.0%	0.0%	0.0%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	1.13	1.13	1.13	1.13	1.13	1.13	0.0%	0.0%	0.0%	0.0%	0.0%
Thermal	0.11	0.11	0.11	0.11	0.11	0.11	0.0%	0.0%	0.0%	0.0%	0.0%
Average Load Factor in %	8.7	12.3	12.7	11.0	9.8	11.0	8.0%	-6.8%	-10.9%	11.5%	2.7%
Fuel Inputs for Thermal Power Generation	0.15	0.17	0.20	0.20	0.20	0.18	6.3%	0.4%	0.4%	-13.5%	1.9%
Solids	0.01	0.00	0.00	0.00	0.00	0.00	-100.0%	0.0%	0.0%	0.0%	-100.0%
Oil	0.00	0.02	0.01	0.02	0.02	0.02	7.0%	60.4%	0.0%	0.0%	15.3%
Gas	0.10	0.13	0.16	0.16	0.16	0.13	9.3%	-1.4%	1.2%	-16.8%	2.8%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.03	0.03	0.03	0.03	0.03	0.02	4.0%	-7.2%	-4.3%	-2.2%	-0.2%
Average Thermal Efficiency in %	25.6	25.6	24.0	25.1	25.6	24.6	-1.3%	2.3%	2.0%	-3.9%	-0.4%
Non-Energy Uses	0.02	0.02	0.02	0.02	0.01	0.01	2.9%	-13.7%	-22.3%	-7.0%	-5.2%
Total Final Energy Demand	2.96	2.98	3.31	3.55	3.61	3.56	2.2%	3.6%	1.7%	-1.5%	2.0%
Solids	0.99	0.74	0.75	0.68	0.70	0.63	-5.4%	-5.0%	3.2%	-10.2%	-4.9%
Oil	1.02	1.30	1.58	1.89	1.89	1.91	9.0%	9.5%	0.0%	0.9%	7.2%
Gas	0.61	0.60	0.62	0.60	0.63	0.60	0.2%	-1.4%	4.2%	-4.1%	-0.2%
Electricity	0.33	0.34	0.35	0.37	0.38	0.40	1.7%	1.5%	3.4%	6.4%	2.4%
Heat	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.01	0.01	0.01	0.02	0.02	0.02	-5.1%	55.1%	0.0%	0.0%	7.1%
CO2 Emissions in Mt of CO2 (2)	12.1	11.5	12.4	12.6	12.9	12.1	0.5%	0.8%	1.9%	-6.3%	0.0%
Indicators											
Population (Million)	0.37	0.37	0.38	0.39	0.40	0.40	0.8%	1.4%	1.3%	1.5%	1.1%
GDP (bil. ECU 1985)	5.0	5.9	6.7	7.2	7.4	7.6	6.2%	3.4%	2.1%	3.0%	4.8%
Gross Inl Cons./GDP (toe/1985 MECU)	628.1	537.3	526.6	525.7	522.2	495.4	-3.5%	-0.1%	-0.7%	-5.1%	-2.6%
Gross Inl Cons./Capita (kgoe/inhabitant)	8515.6	8460.8	9286.7	9642.2	9653.9	9293.5	1.7%	1.9%	0.1%	-3.7%	1.0%
Electricity Generated/Capita (kWh/inhabitant)	2558.1	3575.8	3609.3	3047.8	2680.4	2945.0	7.1%	-8.1%	-12.1%	9.9%	1.6%
CO2 Emissions/Capita (t of CO2/inhabitant)	33.0	30.7	32.6	32.2	32.4	29.9	-0.3%	-0.6%	0.6%	-7.7%	-1.1%
Import Dependency %	99.3	97.9	99.1	99.4	98.3	98.7	0.0%	0.2%	-1.1%	0.4%	-0.1%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

NETHERLANDS : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	65.50	55.60	60.43	67.27	68.39	66.28	-1.6%	5.5%	1.7%	-3.1%	0.1%
Solids	0.07	0.00	0.00	0.00	0.00	0.00	-100.0%	0.0%	0.0%	0.0%	-100.0%
Oil	4.09	4.25	4.03	3.44	3.31	4.38	-0.3%	-7.6%	-3.6%	32.2%	0.8%
Natural gas	59.52	49.59	54.61	62.01	63.12	59.88	-1.7%	6.6%	1.8%	-5.1%	0.1%
Nuclear	0.98	0.92	0.88	0.87	0.99	1.02	-2.1%	-0.8%	13.8%	3.7%	0.5%
Hydro & Wind	0.00	0.00	0.01	0.02	0.02	0.03	114.7%	39.7%	1.1%	37.0%	70.7%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.84	0.84	0.89	0.93	0.95	0.97	1.3%	2.1%	2.4%	1.2%	1.6%
Net Imports	4.02	20.31	17.35	14.07	13.34	17.17	34.0%	-10.0%	-5.1%	28.7%	17.5%
Solids	6.60	8.21	9.48	7.81	8.55	8.91	7.5%	-9.2%	9.4%	4.2%	3.4%
Oil	24.19	30.72	30.88	34.13	32.74	33.85	5.0%	5.1%	-4.1%	3.4%	3.8%
Crude oil	38.30	50.79	47.96	55.81	54.93	55.60	4.6%	7.9%	-1.6%	1.2%	4.2%
Oil products	-14.12	-20.07	-17.08	-21.68	-22.19	-21.75	3.9%	12.7%	2.4%	-2.0%	4.9%
Natural gas	-27.21	-19.12	-23.80	-28.63	-28.84	-26.51	-2.6%	9.7%	0.7%	-8.1%	-0.3%
Electricity	0.44	0.50	0.79	0.75	0.89	0.91	12.4%	-2.9%	18.7%	2.5%	8.4%
Gross Inland Consumption	61.57	64.88	66.92	69.66	70.91	70.73	1.7%	2.0%	1.8%	-0.3%	1.6%
Solids	6.59	8.18	9.12	7.91	8.76	8.85	6.7%	-6.8%	10.7%	1.0%	3.3%
Oil	20.40	23.98	24.41	25.80	25.03	25.59	3.7%	2.8%	-3.0%	2.2%	2.6%
Natural gas	32.32	30.45	30.81	33.38	34.27	33.36	-1.0%	4.1%	2.7%	-2.6%	0.4%
Other (1)	2.25	2.26	2.58	2.57	2.85	2.93	2.7%	-0.2%	11.0%	2.8%	2.9%
Electricity Generation in TWh	62.92	69.60	71.82	77.19	76.98	79.66	2.7%	3.7%	-0.3%	3.5%	2.7%
Nuclear	3.90	3.67	3.50	3.80	3.95	3.97	-2.1%	4.2%	3.9%	0.5%	0.2%
Hydro & wind (including pumping)	0.00	0.02	0.14	0.27	0.27	0.37	114.7%	39.7%	1.1%	37.0%	70.7%
Thermal	59.02	65.91	68.18	73.12	72.76	75.33	2.9%	3.6%	-0.5%	3.5%	2.7%
Generation Capacity in GWe	17.05	17.43	17.44	17.52	17.60	18.35	0.5%	0.2%	0.5%	4.3%	0.8%
Nuclear	0.51	0.51	0.51	0.51	0.51	0.51	0.0%	-0.3%	0.0%	0.0%	-0.1%
Hydro & wind	0.00	0.02	0.08	0.18	0.17	0.19	94.7%	48.0%	-6.5%	12.8%	58.9%
Thermal	16.54	16.91	16.85	16.83	16.92	17.65	0.4%	-0.1%	0.6%	4.3%	0.7%
Average Load Factor in %	42.1	45.6	47.0	50.3	49.9	49.6	2.2%	3.6%	-0.7%	-0.7%	1.8%
Fuel Inputs for Thermal Power Generation	12.85	14.10	14.52	15.40	15.91	16.00	2.5%	3.0%	3.3%	0.6%	2.5%
Solids	3.17	5.00	5.70	5.00	5.37	5.40	12.4%	-6.3%	7.3%	0.5%	6.1%
Oil	0.69	0.78	0.70	0.73	0.70	0.75	0.4%	1.8%	-3.6%	7.6%	1.0%
Gas	8.56	7.89	7.65	9.16	9.32	9.32	-2.2%	9.4%	1.8%	0.0%	0.9%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.43	0.43	0.47	0.52	0.52	0.53	2.0%	4.3%	0.6%	2.8%	2.4%
Average Thermal Efficiency in %	39.5	40.2	40.4	40.8	39.3	40.5	0.4%	0.6%	-3.7%	2.9%	0.3%
Non-Energy Uses	7.65	8.76	9.26	9.41	8.06	8.67	3.9%	0.8%	-14.3%	7.5%	1.4%
Total Final Energy Demand	42.59	42.16	43.11	44.93	46.55	45.84	0.2%	2.1%	3.6%	-1.5%	0.8%
Solids	2.03	1.71	1.68	1.40	1.51	1.17	-3.7%	-8.8%	7.8%	-22.0%	-5.9%
Oil	12.07	13.16	13.19	13.90	14.39	14.51	1.8%	2.7%	3.5%	0.9%	2.1%
Gas	22.57	20.74	21.24	22.16	23.12	21.78	-1.2%	2.1%	4.3%	-5.8%	-0.4%
Electricity	5.28	5.88	6.32	6.69	6.77	6.99	3.7%	2.9%	1.1%	3.3%	3.2%
Heat	0.25	0.27	0.27	0.38	0.38	1.00	1.3%	19.0%	0.0%	162.0%	16.5%
Other	0.39	0.40	0.40	0.40	0.40	0.39	0.4%	-0.3%	-0.3%	-3.1%	-0.2%
CO2 Emissions in Mt of CO2 (2)	145.5	152.6	156.7	161.5	168.4	164.7	1.5%	1.5%	4.3%	-2.3%	1.4%
Indicators											
Population (Million)	14.49	14.76	14.95	15.18	15.29	15.38	0.6%	0.8%	0.7%	0.6%	0.7%
GDP (bil. ECU 1985)	169.4	180.7	196.9	203.9	204.7	209.8	3.1%	1.8%	0.3%	2.5%	2.4%
Gross Inl Cons./GDP (toe/1985 MECU)	363.5	359.0	339.8	341.6	346.5	337.2	-1.3%	0.3%	1.4%	-2.7%	-0.8%
Gross Inl Cons./Capita (kgoe/inhabitant)	4248.3	4395.5	4475.5	4587.7	4637.8	4598.1	1.0%	1.2%	1.1%	-0.9%	0.9%
Electricity Generated/Capita (kWh/inhabitant)	4342.0	4715.3	4805.5	5083.5	5034.5	5179.0	2.0%	2.9%	-1.0%	2.9%	2.0%
CO2 Emissions/Capita (t of CO2/inhabitant)	10.0	10.3	10.5	10.6	11.0	10.7	0.9%	0.7%	3.6%	-2.8%	0.7%
Import Dependency %	5.7	26.9	22.3	17.4	16.2	21.0	31.3%	-11.7%	-7.0%	29.8%	15.5%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

PORTUGAL : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	3.20	3.32	3.12	2.69	3.02	3.21	-0.5%	-7.1%	12.1%	6.5%	0.1%
Solids	0.10	0.09	0.12	0.09	0.08	0.06	3.4%	-11.3%	-10.9%	-25.4%	-5.2%
Oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	0.93	1.05	0.79	0.40	0.74	0.92	-3.2%	-28.7%	83.8%	24.9%	-0.1%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.04	-	17.5%	0.0%	743.3%	-
Other	2.17	2.18	2.21	2.20	2.20	2.20	0.3%	-0.3%	0.0%	0.0%	0.1%
Net Imports	9.64	11.65	15.16	16.57	15.94	16.02	9.5%	4.6%	-3.8%	0.5%	5.8%
Solids	0.94	1.80	2.79	2.84	3.05	3.22	24.4%	0.9%	7.5%	5.5%	14.7%
Oil	8.51	9.65	12.37	13.62	12.87	12.73	7.8%	4.9%	-5.5%	-1.1%	4.6%
Crude oil	7.19	8.60	11.36	11.78	11.55	13.91	9.6%	1.8%	-1.9%	20.4%	7.6%
Oil products	1.31	1.05	1.01	1.84	1.32	-1.18	-5.2%	35.0%	-28.3%	-	-
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Electricity	0.19	0.21	0.00	0.12	0.02	0.08	-56.0%	502.0%	-87.0%	407.4%	-9.8%
Gross Inland Consumption	12.36	14.78	17.20	18.73	18.38	18.98	6.8%	4.4%	-1.9%	3.3%	4.9%
Solids	0.66	1.97	2.58	2.95	3.13	3.31	31.2%	7.0%	6.1%	5.8%	19.5%
Oil	8.60	9.38	11.61	13.07	12.29	12.43	6.7%	6.1%	-5.9%	1.2%	4.5%
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other (1)	3.29	3.43	3.00	2.72	2.95	3.23	-1.8%	-4.9%	8.7%	9.4%	-0.2%
Electricity Generation in TWh	19.10	22.47	28.49	30.08	31.20	31.37	8.3%	2.7%	3.7%	0.6%	5.7%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind (including pumping)	10.85	12.29	9.30	5.08	8.75	10.72	-3.0%	-26.1%	72.3%	22.5%	-0.1%
Thermal	8.26	10.19	19.19	25.00	22.45	20.66	18.4%	14.1%	-10.2%	-8.0%	10.7%
Generation Capacity in GWe	6.08	6.92	7.40	8.20	8.73	8.83	4.0%	5.3%	6.5%	1.1%	4.2%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	3.08	3.28	3.34	3.71	4.18	4.27	1.7%	5.3%	12.7%	2.1%	3.7%
Thermal	3.00	3.63	4.05	4.49	4.55	4.57	6.2%	5.3%	1.4%	0.3%	4.8%
Average Load Factor in %	35.9	37.1	44.0	41.9	40.8	40.5	4.2%	-2.4%	-2.6%	-0.6%	1.4%
Fuel Inputs for Thermal Power Generation	1.86	2.26	4.30	5.47	4.95	4.52	18.3%	12.8%	-9.5%	-8.6%	10.4%
Solids	0.22	1.31	2.03	2.21	2.44	2.58	56.0%	4.4%	10.4%	5.7%	31.5%
Oil	1.51	0.81	2.10	3.03	2.28	1.68	6.9%	20.0%	-24.8%	-26.2%	1.2%
Gas	0.02	0.02	0.02	0.04	0.04	0.04	4.3%	36.4%	10.5%	-1.2%	10.7%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.04	-	17.5%	0.0%	743.3%	-
Other	0.11	0.11	0.14	0.19	0.19	0.19	4.4%	14.4%	0.0%	0.0%	5.5%
Average Thermal Efficiency in %	38.2	38.8	38.4	39.3	39.0	39.3	0.1%	1.2%	-0.8%	0.6%	0.3%
Non-Energy Uses	1.01	1.92	2.10	1.91	1.77	1.86	15.8%	-4.5%	-7.7%	5.2%	7.0%
Total Final Energy Demand	9.54	10.60	11.53	12.39	12.52	13.10	3.9%	3.7%	1.0%	4.6%	3.6%
Solids	0.43	0.64	0.62	0.61	0.60	0.62	7.5%	-0.2%	-2.0%	2.7%	4.1%
Oil	5.42	5.99	6.69	7.43	7.54	8.03	4.3%	5.4%	1.5%	6.5%	4.5%
Gas	0.09	0.10	0.10	0.10	0.10	0.09	1.7%	-1.5%	-4.2%	-10.2%	-1.0%
Electricity	1.50	1.79	2.02	2.21	2.23	2.32	6.2%	4.4%	1.3%	3.7%	5.0%
Heat	0.03	0.03	0.03	0.03	0.03	0.04	-4.9%	11.0%	9.0%	2.8%	0.8%
Other	2.06	2.06	2.07	2.01	2.01	2.01	0.1%	-1.4%	0.0%	0.0%	-0.3%
CO2 Emissions in Mt of CO2 (2)	25.8	30.6	39.7	45.8	44.7	45.4	9.0%	7.3%	-2.3%	1.6%	6.5%
Indicators											
Population (Million)	10.01	9.97	9.90	9.86	9.88	9.90	0.2%	-0.2%	0.1%	0.3%	-0.1%
GDP (bil. ECU 1985)	30.8	36.0	39.7	41.0	41.2	41.6	5.3%	1.5%	0.5%	1.1%	3.4%
Gross Inl Cons./GDP (toe/1985 MECU)	401.8	410.0	432.7	457.0	446.1	455.7	1.5%	2.8%	-2.4%	2.1%	1.4%
Gross Inl Cons./Capita (kgoe/inhabitant)	1234.2	1482.6	1737.8	1899.5	1860.7	1916.5	7.1%	4.5%	-2.0%	3.0%	5.0%
Electricity Generated/Capita (kWh/inhabitant)	1908.4	2255.7	2879.4	3050.3	3159.1	3168.5	8.6%	2.9%	3.6%	0.3%	5.8%
CO2 Emissions/Capita (t of CO2/inhabitant)	2.6	3.1	4.0	4.6	4.5	4.6	9.2%	7.5%	-2.5%	1.3%	6.6%
Import Dependency %	75.2	76.5	85.2	85.7	84.4	82.3	2.5%	0.3%	-1.6%	-2.4%	1.0%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

SPAIN : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	30.24	33.39	33.41	32.65	32.52	32.27	2.0%	-1.2%	-0.4%	-0.8%	0.7%
Solids	13.94	11.20	11.68	11.42	11.06	10.55	-3.5%	-1.1%	-3.2%	-4.7%	-3.1%
Oil	2.17	1.47	0.79	1.07	0.87	0.94	-18.2%	16.1%	-19.0%	8.5%	-8.8%
Natural gas	0.23	0.81	1.27	1.09	0.60	0.18	40.9%	-7.5%	-45.3%	-69.7%	-2.6%
Nuclear	7.38	13.02	13.70	13.59	14.04	14.27	13.2%	-0.4%	3.3%	1.6%	7.6%
Hydro & Wind	2.69	3.04	2.19	1.63	2.10	2.42	-4.1%	-13.7%	28.8%	15.6%	-1.1%
Geothermal	0.00	0.00	0.00	0.01	0.01	0.01	22.9%	64.6%	0.0%	0.0%	25.2%
Other	3.84	3.84	3.78	3.83	3.85	3.90	0.3%	0.7%	0.4%	1.3%	0.2%
Net Imports	46.37	53.40	59.85	66.96	63.28	68.40	5.2%	5.8%	-5.5%	8.1%	4.4%
Solids	5.23	5.30	7.04	9.46	8.13	7.58	6.1%	16.0%	-14.1%	-6.8%	4.2%
Oil	39.10	45.63	49.16	52.60	49.95	54.18	4.7%	3.4%	-5.0%	8.5%	3.7%
Crude oil	43.95	49.88	53.25	54.80	52.16	54.45	3.9%	1.4%	-4.8%	4.4%	2.4%
Oil products	-4.85	-4.25	-4.09	-2.20	-2.21	-0.27	-3.4%	-26.6%	0.3%	-87.7%	-27.4%
Natural gas	2.14	2.59	3.69	4.84	5.09	6.49	11.5%	14.5%	5.2%	27.5%	13.1%
Electricity	-0.09	-0.11	-0.04	0.06	0.11	0.16	17.1%	-	97.7%	46.4%	-206.3%
Gross Inland Consumption	73.91	83.28	89.09	95.46	91.69	97.40	3.8%	3.5%	-3.9%	6.2%	3.1%
Solids	19.48	15.72	18.94	20.78	19.23	18.92	-0.6%	4.7%	-7.5%	-1.6%	-0.3%
Oil	38.27	44.41	45.54	49.70	46.62	51.43	3.5%	4.5%	-6.2%	10.3%	3.3%
Natural gas	2.35	3.35	4.97	5.85	5.74	6.30	16.1%	8.5%	-1.9%	9.6%	11.6%
Other (1)	13.81	19.79	19.63	19.12	20.10	20.76	7.3%	-1.3%	5.1%	3.3%	4.6%
Electricity Generation in TWh	127.34	139.68	151.71	158.49	156.50	161.47	3.6%	2.2%	-1.3%	3.2%	2.7%
Nuclear	28.04	50.46	54.26	55.77	56.05	55.30	14.1%	1.4%	0.5%	-1.3%	7.8%
Hydro & wind (including pumping)	33.03	36.36	26.18	20.94	25.77	29.18	-4.5%	-10.6%	23.1%	13.2%	-1.4%
Thermal	66.27	52.86	71.28	81.77	74.68	76.99	1.5%	7.1%	-8.7%	3.1%	1.7%
Generation Capacity in GWe	39.61	42.79	43.41	43.84	43.91	44.49	1.8%	0.5%	0.2%	1.3%	1.3%
Nuclear	5.55	7.47	6.97	7.02	7.02	7.02	4.7%	0.3%	0.0%	0.0%	2.7%
Hydro & wind	14.53	15.32	16.23	16.44	16.45	16.53	2.2%	0.6%	0.0%	0.5%	1.4%
Thermal	19.53	20.00	20.21	20.38	20.45	20.94	0.7%	0.4%	0.3%	2.4%	0.8%
Average Load Factor in %	36.7	37.2	39.9	41.3	40.7	41.4	1.7%	1.7%	-1.4%	1.8%	1.4%
Fuel Inputs for Thermal Power Generation	15.71	12.94	16.61	20.35	17.53	17.93	1.1%	10.7%	-13.9%	2.3%	1.5%
Solids	12.84	10.50	13.88	15.63	14.10	14.05	1.6%	6.1%	-9.8%	-0.4%	1.0%
Oil	1.97	1.87	2.17	3.49	2.32	2.39	1.9%	26.9%	-33.5%	3.0%	2.2%
Gas	0.76	0.43	0.49	0.51	0.38	0.73	-8.5%	2.6%	-24.8%	90.0%	-0.4%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	0.0%	0.0%	0.0%	0.0%
Other	0.14	0.15	0.08	0.71	0.72	0.76	-11.7%	205.1%	0.7%	5.4%	20.3%
Average Thermal Efficiency in %	36.3	35.1	36.9	34.6	36.6	36.9	0.3%	-3.2%	6.0%	0.8%	0.2%
Non-Energy Uses	4.87	5.94	5.85	6.21	5.51	6.03	3.7%	3.0%	-11.2%	9.5%	2.4%
Total Final Energy Demand	47.46	53.41	56.55	59.71	58.98	62.77	3.6%	2.8%	-1.2%	6.4%	3.2%
Solids	4.25	3.45	3.52	3.52	2.64	2.59	-3.7%	0.0%	-25.1%	-2.0%	-5.4%
Oil	28.10	32.67	33.60	36.24	36.07	39.65	3.6%	3.9%	-0.5%	9.9%	3.9%
Gas	2.55	3.75	4.90	5.56	5.89	5.61	13.9%	6.5%	5.9%	-4.8%	9.1%
Electricity	8.84	9.82	10.82	11.24	11.24	11.78	4.1%	2.0%	0.1%	4.8%	3.2%
Heat	0.00	0.00	0.00	0.01	0.01	0.01	22.9%	64.6%	0.0%	0.0%	25.2%
Other	3.72	3.72	3.70	3.13	3.14	3.15	-0.1%	-8.1%	0.3%	0.4%	-1.8%
CO2 Emissions in Mt of CO2 (2)	184.0	188.5	209.5	230.7	217.2	229.4	2.6%	4.9%	-5.8%	5.6%	2.5%
Indicators											
Population (Million)	38.41	38.69	38.84	39.01	39.08	39.14	0.2%	0.2%	0.2%	0.2%	0.2%
GDP (bl. ECU 1985)	218.3	250.3	272.0	280.0	276.9	282.4	4.5%	1.5%	-1.1%	2.0%	2.9%
Gross Inl Cons./GDP (toe/1985 MECU)	338.5	332.7	327.5	340.9	331.1	344.8	-0.7%	2.0%	-2.9%	4.1%	0.2%
Gross Inl Cons./Capita (kgoe/inhabitant)	1924.4	2152.3	2293.9	2447.3	2346.1	2488.3	3.6%	3.3%	-4.1%	6.1%	2.9%
Electricity Generated/Capita (kWh/inhabitant)	3315.5	3607.5	3906.5	4062.9	4004.3	4125.2	3.3%	2.0%	-1.4%	3.0%	2.5%
CO2 Emissions/Capita (t of CO2/inhabitant)	4.8	4.9	5.4	5.9	5.6	5.9	2.4%	4.7%	-6.0%	5.5%	2.3%
Import Dependency %	60.6	61.8	64.4	67.4	66.6	68.1	1.2%	2.3%	-1.2%	2.3%	1.3%

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

SWEDEN : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	26.25	29.32	29.29	29.14	28.92	30.81	2.2%	-0.3%	-0.7%	6.5%	1.8%
Solids	0.10	0.15	0.27	0.32	0.30	0.27	21.8%	8.9%	-4.8%	-11.6%	11.6%
Oil	0.01	0.00	0.00	0.00	0.00	0.00	-17.8%	-42.2%	-100.0%	.	-5.2%
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	.	.	.	.	.
Nuclear	15.26	18.09	17.76	16.56	15.98	18.87	3.1%	-3.5%	-3.5%	18.1%	2.4%
Hydro & Wind	6.11	6.01	6.23	6.40	6.42	5.08	0.4%	1.3%	0.4%	-20.9%	-2.0%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	.	.	.	.	.
Other	4.78	5.06	5.02	5.87	6.21	6.59	1.0%	8.2%	5.9%	6.0%	3.6%
Net Imports	20.03	18.39	17.82	17.30	18.05	19.40	-2.3%	-1.5%	4.3%	7.5%	-0.4%
Solids	3.08	2.48	2.33	2.09	2.22	2.47	-5.4%	-5.2%	6.2%	11.3%	-2.4%
Oil	17.01	15.81	15.11	14.77	15.17	16.27	-2.3%	-1.1%	2.7%	7.2%	-0.5%
Crude oil	14.06	14.65	16.93	16.99	17.69	17.57	3.8%	0.2%	4.1%	-0.7%	2.5%
Oil products	2.95	1.16	-1.82	-2.23	-2.52	-1.30	-190.8%	10.6%	13.3%	-48.3%	-191.3%
Natural gas	0.07	0.32	0.53	0.63	0.70	0.64	47.8%	9.0%	11.7%	-8.7%	26.9%
Electricity	-0.13	-0.22	-0.15	-0.18	-0.05	0.02	3.2%	10.3%	-72.7%	-144.5%	-182.3%
Gross Inland Consumption	46.46	48.92	46.62	46.23	46.27	48.55	0.1%	-0.4%	0.1%	4.9%	0.5%
Solids	2.80	2.88	2.73	2.59	2.72	2.70	-0.5%	-2.8%	5.1%	-0.6%	-0.4%
Oil	17.58	16.79	14.50	14.38	14.28	14.65	-3.8%	-0.4%	-0.7%	2.6%	-2.0%
Natural gas	0.07	0.32	0.53	0.63	0.70	0.64	47.8%	9.0%	11.7%	-8.7%	26.9%
Other (1)	26.01	28.94	28.86	28.63	28.57	30.56	2.1%	-0.4%	-0.2%	7.0%	1.8%
Electricity Generation in TWh	137.13	146.21	146.48	145.69	145.78	142.86	1.3%	-0.3%	0.1%	-2.0%	0.5%
Nuclear	58.55	69.41	68.17	63.53	61.38	73.14	3.1%	-3.5%	-3.4%	19.2%	2.5%
Hydro & wind (including pumping)	71.59	70.47	73.03	74.39	75.25	59.43	0.4%	0.9%	1.2%	-21.0%	-2.0%
Thermal	6.98	6.33	5.28	7.77	9.15	10.29	-5.4%	21.3%	17.7%	12.4%	4.4%
Generation Capacity in GWe	33.17	33.17	34.19	34.57	35.20	35.04	0.6%	0.6%	1.8%	-0.5%	0.6%
Nuclear	9.46	9.70	9.97	9.91	9.91	10.04	1.1%	-0.3%	0.0%	1.3%	0.7%
Hydro & wind	15.70	16.12	16.34	16.40	16.48	16.54	0.8%	0.2%	0.5%	0.4%	0.6%
Thermal	8.02	7.35	7.88	8.26	8.81	8.46	-0.4%	2.4%	6.7%	-4.0%	0.6%
Average Load Factor in %	47.2	50.3	48.9	48.1	47.3	46.5	0.7%	-0.8%	-1.7%	-1.5%	-0.2%
Fuel Inputs for Thermal Power Generation	2.40	1.79	1.36	2.18	2.43	2.65	-10.7%	26.4%	11.6%	9.0%	1.1%
Solids	0.89	0.91	0.65	0.71	0.76	0.75	-6.2%	4.5%	7.6%	-1.4%	-1.9%
Oil	1.15	0.48	0.23	0.46	0.60	0.83	-27.8%	43.3%	28.3%	39.6%	-3.5%
Gas	0.13	0.16	0.25	0.38	0.42	0.41	14.9%	23.6%	8.7%	-1.3%	14.1%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	.	.	.	.	.
Other	0.24	0.24	0.24	0.62	0.66	0.66	0.0%	61.6%	5.6%	0.0%	11.9%
Average Thermal Efficiency in %	25.0	30.5	33.4	30.7	32.4	33.4	5.9%	-4.1%	5.5%	3.1%	3.3%
Non-Energy Uses	1.51	1.90	1.87	1.83	1.60	1.59	4.4%	-1.0%	-12.6%	-0.7%	0.6%
Total Final Energy Demand	31.18	31.73	30.39	30.63	32.15	33.05	-0.5%	0.4%	4.9%	2.8%	0.6%
Solids	1.14	1.18	1.22	1.08	1.10	1.09	1.4%	-6.1%	1.7%	-0.3%	-0.5%
Oil	13.13	13.15	12.00	11.88	11.68	12.31	-1.8%	-0.5%	-1.7%	5.4%	-0.7%
Gas	0.33	0.47	0.59	0.59	0.61	0.61	11.9%	0.3%	3.2%	0.0%	6.9%
Electricity	9.77	10.32	10.35	10.33	10.42	10.55	1.2%	-0.1%	0.8%	1.3%	0.9%
Heat	2.51	2.02	1.71	2.00	3.45	3.48	-7.4%	8.3%	72.7%	0.9%	3.7%
Other	4.30	4.59	4.54	4.76	4.90	5.01	1.1%	2.4%	3.0%	2.2%	1.7%
CO2 Emissions in Mt of CO2 (2)	60.2	57.5	52.8	53.4	53.4	56.1	-2.6%	0.6%	-0.1%	5.0%	-0.8%
Indicators											
Population (Million)	8.35	8.44	8.56	8.67	8.72	8.78	0.5%	0.6%	0.6%	0.7%	0.6%
GDP (bil. ECU 1985)	132.9	143.4	148.8	145.0	141.3	144.4	2.3%	-1.3%	-2.6%	2.2%	0.9%
Gross Inl Cons./GDP (toe/1985 MECU)	349.6	341.2	313.4	318.8	327.4	336.2	-2.2%	0.9%	2.7%	2.7%	-0.4%
Gross Inl Cons./Capita (kgoe/inhabitant)	5564.3	5798.8	5447.4	5333.6	5306.4	5529.0	-0.4%	-1.0%	-0.5%	4.2%	-0.1%
Electricity Generated/Capita (kWh/inhabitant)	16422.2	17332.0	17114.3	16808.3	16720.4	16269.6	0.8%	-0.9%	-0.5%	-2.7%	-0.1%
CO2 Emissions/Capita (t of CO2/inhabitant)	7.2	6.8	6.2	6.2	6.1	6.4	-3.0%	-0.1%	-0.7%	4.3%	-1.3%
Import Dependency %	42.6	37.1	37.7	36.7	38.3	39.1	-2.4%	-1.3%	4.2%	2.2%	-0.9%

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

(2) Given on an indicative basis; calculated using common emission factors across all countries in the world.

UNITED KINGDOM : SUMMARY ENERGY BALANCE

Mtoe	1985	1988	1990	1992	1993	1994	90/85	92/90	93/92	94/93	94/85
							Annual % Change				
Primary Production	236.59	234.15	203.75	210.16	218.82	239.29	-2.9%	1.6%	4.1%	9.4%	0.1%
Solids	54.74	60.51	53.11	48.77	39.43	28.05	-0.6%	-4.2%	-19.2%	-28.9%	-7.2%
Oil	129.20	118.44	92.12	95.88	101.74	128.89	-6.5%	2.0%	6.1%	26.7%	0.0%
Natural gas	35.72	37.85	40.92	45.57	54.39	58.15	2.8%	5.5%	19.4%	6.9%	5.6%
Nuclear	15.98	16.34	16.57	18.74	22.09	22.77	0.7%	6.3%	17.8%	3.1%	4.0%
Hydro & Wind	0.35	0.40	0.44	0.48	0.39	0.47	4.4%	4.5%	-18.9%	20.5%	3.2%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	39.4%	0.0%	0.0%	7.7%
Other	0.60	0.60	0.60	0.73	0.79	0.96	0.2%	10.4%	8.7%	22.0%	5.4%
Net Imports	-31.65	-20.39	7.34	8.43	1.03	-29.16	-174.7%	7.1%	-87.7%	-2918.7%	-0.9%
Solids	6.59	7.90	9.12	13.08	12.17	9.24	6.7%	19.7%	-7.0%	-24.0%	3.8%
Oil	-49.62	-38.33	-8.99	-10.78	-15.80	-41.67	-28.9%	9.5%	46.5%	163.8%	-1.9%
Crude oil	-47.91	-29.43	-3.11	0.06	-2.55	-29.58	-42.1%	-	-4311.1%	1060.9%	-5.2%
Oil products	-1.71	-8.90	-5.88	-10.84	-13.25	-12.10	28.0%	35.8%	22.2%	-8.7%	24.3%
Natural gas	11.39	8.93	6.18	4.69	3.23	1.82	-11.5%	-12.8%	-31.2%	-43.7%	-18.4%
Electricity	0.00	1.10	1.03	1.44	1.44	1.45	-	18.2%	0.1%	1.0%	-
Gross Inland Consumption	203.73	210.91	210.81	214.23	218.03	219.61	0.7%	0.8%	1.8%	0.7%	0.8%
Solids	62.77	66.93	63.31	59.42	52.67	48.39	0.2%	-3.1%	-11.4%	-8.1%	-2.8%
Oil	77.38	79.32	81.66	83.25	82.92	85.36	1.1%	1.0%	-0.4%	2.9%	1.1%
Natural gas	46.64	46.21	47.20	50.17	57.73	60.21	0.2%	3.1%	15.1%	4.3%	2.9%
Other (1)	16.94	18.44	18.64	21.38	24.70	25.66	1.9%	7.1%	15.5%	3.9%	4.7%
Electricity Generation in TWh	298.04	308.08	318.92	321.04	323.02	325.32	1.4%	0.3%	0.6%	0.7%	1.0%
Nuclear	61.08	63.44	65.74	76.79	89.35	88.27	1.5%	8.1%	16.3%	-1.2%	4.2%
Hydro & wind (including pumping)	6.93	6.97	7.06	7.24	5.93	6.88	0.4%	1.3%	-18.1%	15.9%	-0.1%
Thermal	230.03	237.67	246.12	237.00	227.74	230.18	1.4%	-1.9%	-3.9%	1.1%	0.0%
Generation Capacity in GWe	67.43	69.41	73.01	65.45	68.53	69.02	1.6%	-5.3%	4.7%	0.7%	0.3%
Nuclear	7.06	7.64	11.35	11.35	11.89	12.02	10.0%	0.0%	4.8%	1.1%	6.1%
Hydro & wind	4.19	4.16	4.18	4.25	4.35	4.40	-0.1%	1.0%	2.2%	1.2%	0.5%
Thermal	56.17	57.61	57.48	49.85	52.29	52.60	0.5%	-6.9%	4.9%	0.6%	-0.7%
Average Load Factor in %	50.5	50.7	49.9	56.0	53.6	53.8	0.2%	5.9%	-3.9%	0.1%	0.7%
Fuel Inputs for Thermal Power Generation	54.40	53.79	57.09	54.64	51.12	48.71	1.0%	-2.2%	-6.5%	-4.7%	-1.2%
Solids	42.13	46.40	47.57	45.61	37.53	35.11	2.5%	-2.1%	-17.7%	-6.5%	-2.0%
Oil	10.72	6.09	7.59	5.85	6.06	3.74	-6.7%	-12.2%	3.7%	-38.3%	-11.0%
Gas	1.20	0.95	1.57	2.72	6.99	9.16	5.5%	31.7%	157.3%	31.3%	25.4%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.0%	0.0%	0.0%	0.0%	0.0%
Other	0.36	0.36	0.36	0.47	0.53	0.68	0.2%	14.9%	13.5%	28.3%	7.4%
Average Thermal Efficiency in %	36.4	38.0	37.1	37.3	38.3	40.6	0.4%	0.3%	2.7%	6.1%	1.2%
Non-Energy Uses	12.14	13.22	12.26	10.73	12.62	13.65	0.2%	-6.5%	17.6%	8.1%	1.3%
Total Final Energy Demand	127.15	136.20	136.28	141.52	141.03	142.03	1.4%	1.9%	-0.3%	0.7%	1.2%
Solids	15.99	14.89	12.04	11.66	11.01	10.36	-5.5%	-1.6%	-5.5%	-5.9%	-4.7%
Oil	51.17	56.46	58.78	59.68	60.27	61.20	2.8%	0.8%	1.0%	1.5%	2.0%
Gas	38.92	41.35	41.17	45.72	44.89	45.38	1.1%	5.4%	-1.8%	1.1%	1.7%
Electricity	20.81	22.82	23.60	24.20	24.60	24.81	2.5%	1.3%	1.7%	0.8%	2.0%
Heat	0.01	0.44	0.45	0.00	0.00	0.00	104.0%	-95.7%	0.0%	0.0%	-26.0%
Other	0.24	0.24	0.24	0.26	0.26	0.28	0.2%	3.3%	0.1%	8.9%	1.8%
CO2 Emissions in Mt of CO2 (2)	555.8	576.8	580.2	580.8	559.0	549.7	0.9%	0.1%	-3.8%	-1.7%	-0.1%
Indicators											
Population (Million)	56.69	57.16	57.56	58.01	58.19	58.35	0.3%	0.4%	0.3%	0.3%	0.3%
GDP (bil. ECU 1985)	604.7	694.3	712.3	694.6	708.7	735.6	3.3%	-1.2%	2.0%	3.8%	2.2%
Gross Inl Cons./GDP (toe/1985 MECU)	336.9	303.8	296.0	308.4	307.7	298.5	-2.6%	2.1%	-0.2%	-3.0%	-1.3%
Gross Inl Cons./Capita (kgoe/inhabitant)	3594.0	3689.9	3662.3	3693.2	3746.8	3763.6	0.4%	0.4%	1.4%	0.5%	0.5%
Electricity Generated/Capita (kWh/inhabitant)	5257.7	5390.0	5540.5	5532.3	5547.3	5575.3	1.1%	-0.1%	0.3%	0.5%	0.7%
CO2 Emissions/Capita (t of CO2/inhabitant)	9.8	10.1	10.1	10.0	9.6	9.4	0.6%	-0.3%	-4.1%	-1.9%	-0.4%
Import Dependency %	-15.4	-9.6	3.4	3.9	0.5	-13.1	-174.1%	6.3%	-87.9%	-2900.5%	-1.7%

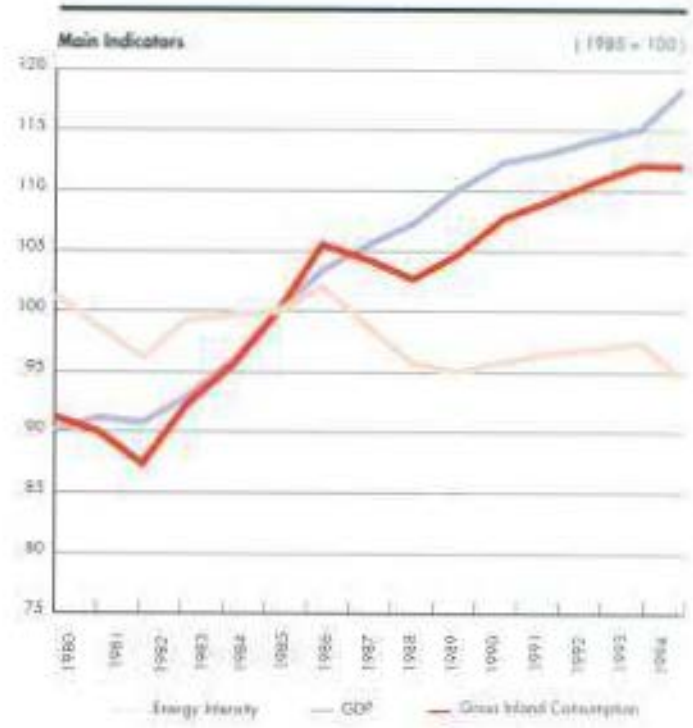
(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Given on an indicative basis, calculated using common emission factors across all countries in the world.

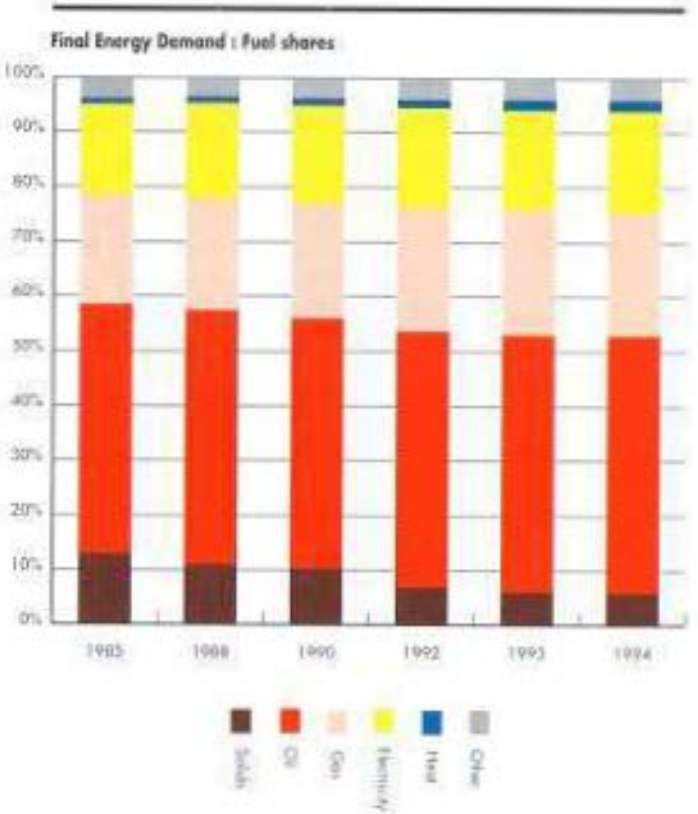
This region comprises the rest of Western Europe. These countries are:, Iceland, Norway, and Switzerland. Due to lack of information, Liechtenstein is not covered in the analysis.

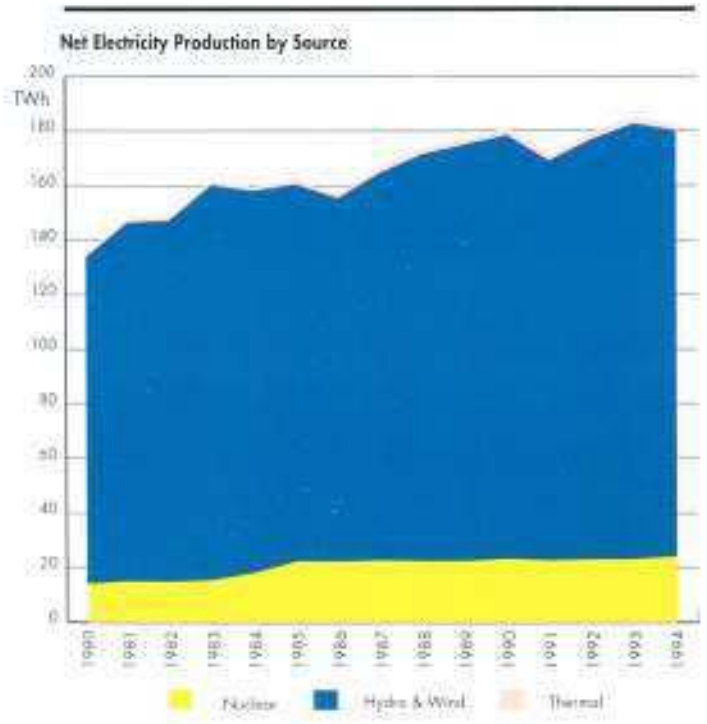
The economic environment of the regions is marked by a GDP growing continuously by about 2% per year on average since 1980, under the leadership of Norway (about 2.8% per year of growth) mainly influenced by the increasing production of hydrocarbon in the North Sea.

As a whole, EFTA is a **net exporter of energy**, with a contribution increasing from 36 Mtoe in 1980 to 146 Mtoe in 1994, although the situation changes dramatically from country to country. North sea crude oil and, to a lesser extend gas, both exported by Norway, are the main contributors to energy net export (110 Mtoe and 22 Mtoe respectively in 1994). Exported volumes of oil quite doubled from 1990 to 1994. The two other EFTA countries are net importers of energy. Switzerland, that imported 68% of its energy in 1980, still imported about 14 Mtoe during 1994 (55% of its 1994 primary consumption), quite exclusively as crude and oil products. Iceland imports 39% of its energy consumption, as oil products and marginally as coal. As a consequence of the trends, the overall **energy independence** of EFTA countries shows a downward trend over the period. Norway is a net exporter and, in 1994, it exported almost fifteen times its gross inland consumption.

Final energy demand in the three EFTA countries increased steadily between 1980 and 1992 by 1.1% per year on average, but remains rather stable since then. This evolution is also characterised by a rather constant final demand for solids and oil, the increase in energy needs being mainly covered by electricity (+2.1% on average between 1980 and 1994), gas (+6.9%), heat (4.1%) and biomass (+4.2%). In 1994, oil represented still 50% of the final demand, coming from 60% in 1980. Electricity which largely covers heating demand in Norway, accounted for 35% of total final demand in 1994 as against 30% in 1980, but seems to remain stagnant since 1990. Gas, although showing fastest growth, accounted only for 5% of the total final demand in 1994, the consumption being only the fact of Switzerland. Finally biomass satisfied almost 4% of the demand in 1994; coal and heat sharing quite equally the remaining 6%.





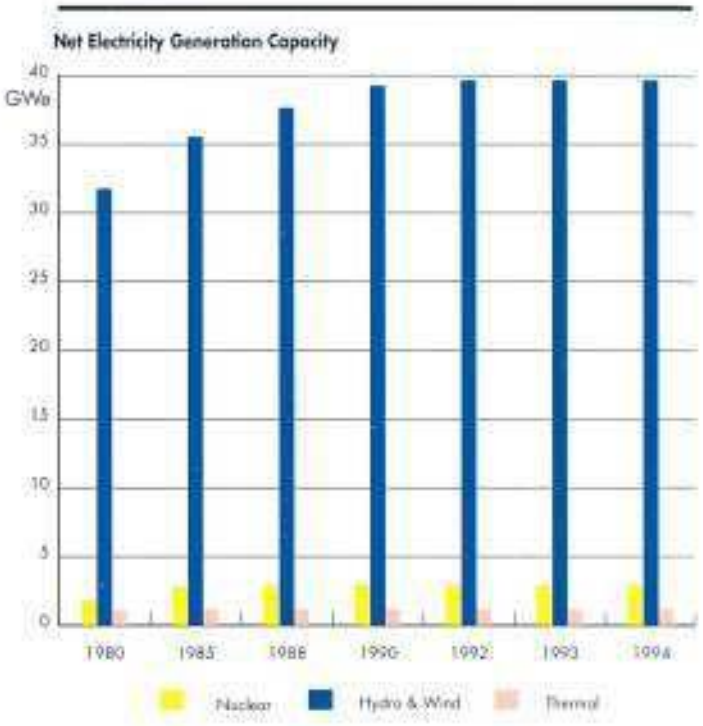


Total gross inland energy consumption is almost constant in EFTA countries since 1992 (around 50 Mtoe), after a continuous increase by 1.6% between 1980 and 1992. During the 80's the consumption of oil and solid fuels remained rather constant in absolute terms, the incremental consumption being mainly covered by hydro (3.1 Mtoe or 41% of the total), by nuclear (2.4 Mtoe or 33%) and by gas (1.9 Mtoe or 25%). It must be noted that since 1990, oil consumption is slightly declining, with an acceleration in 1994 (-2.5%), all the variation in the total demand being covered by natural gas.

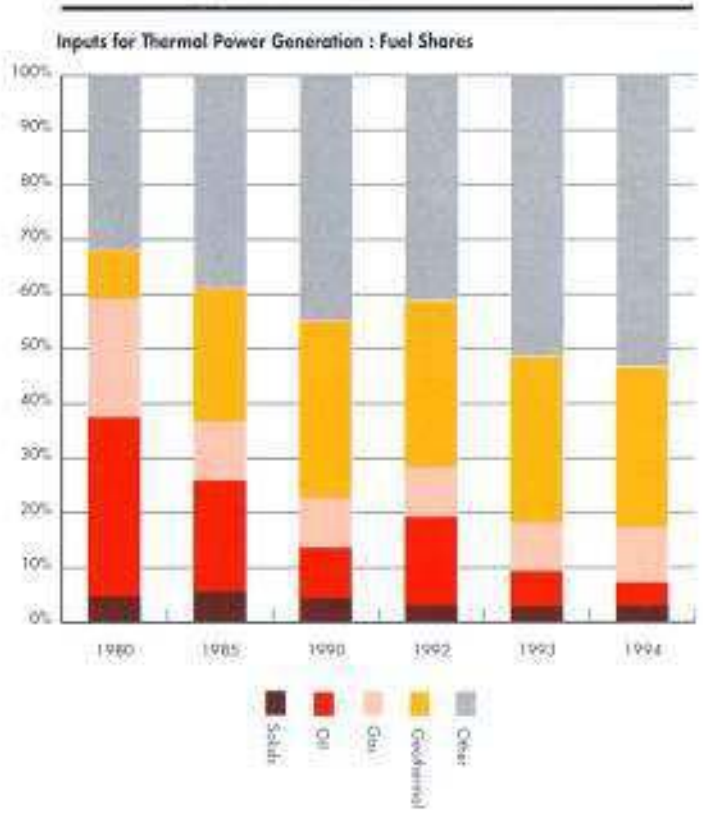
Energy production in the EFTA countries (182 Mtoe in 1994) is dominated by oil which accounted for more than 72% of the total in 1994, and has increased since 1980 by more than 12% per year on average over the period. This is only the fact of Norway which remained in 1994 the first European producer (with a production quite equivalent to the United Kingdom one's). The second energy source is gas, also only produced by Norway, that represented 15% of the total production in 1994, after an annual average increase by 1.3% over the period, 1994 showing however a 8.1% increase. Renewable energy sources (hydro, geothermal and biomass) take the third place with 9% of the total in 1994; the production of these sources increased on average by 3.5% per year over the period. Nuclear energy represented 3.4% of the total energy production in 1994. However, nuclear output after an average annual increase of 10% until 1985, stayed more or less constant since then, with a 4.3% increase however during 1994 due to a better utilisation of existing capacities.

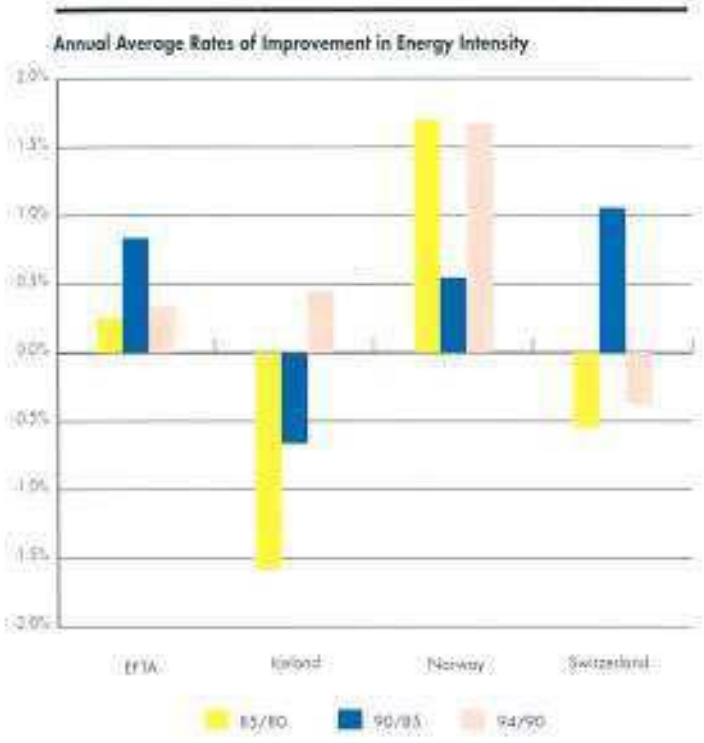
Electricity generation, that increased by 2.2% since 1980, is coming mainly from hydro-power and wind, with 85% of the total generation in 1994 with the complement being produced by nuclear (13%) and thermal (a few more than only 1%). Nuclear energy has virtually stagnated since 1985 in absence of any additional capacity. However, this picture is not homogeneous across EFTA countries. In fact electricity in Norway and Iceland is practically all generated from hydro power, while in Switzerland nuclear contributed in 1994 to about 38%, the complement being provided by hydro (60%) and thermal (2%).

The **generation capacity** reached 44 GWe in 1994, without any significant addition since 1990. Rate of expansion has been declining during the 80's with about 2.7% during the first half and only 1.8% during the second half. Hydro dominates largely the generation capacity, representing about 90% of installed capacity in 1994, for 7% by nuclear and 3% by thermal.



In terms of **fuel mix** to thermal power stations (only 1.3 Mtoe in 1994), biomass and geothermal energy cover most of the needs (53% and 30% respectively in 1994), oil losing its share (from 33% in 1980 down to 4% in 1994), while the contribution of gas remains rather constant in absolute terms (0.1 Mtoe) over the period, representing a 10% contribution in 1994.





In terms of **energy intensity**, the long term trend indicated an improvement by about 0.5% per year on average since 1980, the major gains being realised between 1980 and 1982, between 1986 and 1989 and in 1994, the other periods being marked by losses in improvement. However the situation is different from country to country. Switzerland reached only about 182 Mtoe/1985 MECU in 1994, quite stable since 1980, while Iceland peaked at 465 increasing on average by 0.7% since 1980, and Norway reached 243 during 1994 declining on average by 1.3% since 1980.

EFTA countries demonstrated **energy consumption per capita** quite different by country: Switzerland with a ratio ranging around 3.6 toe/inhabitant, and the other countries where this ratio varies from 5.3 toe/inhabitant in Norway to 7.9 toe/inhabitant in Iceland and However, the differences among countries are to a very large extent function of their geographic situation (climate).

CO2 emissions increased from 71 Mtoe in 1980 to 77 Mtoe in 1992 and remained constant since then, showing an absolute increase by 5.5% since 1990.

EFTA: MAJOR TRENDS (1980-1994)

- **Net exporter of energy with exported volume of oil nearly doubled between 1990 and 1994**
- **Final energy demand, stable in 1993 and 1994, mainly covered by oil (50%)**
- **Electricity generation dominated by hydro (85%), completed by nuclear (13%)**
- **Energy intensity improved by 0.5% per year since 1980 with an acceleration to 2.9% in 1994 under pressure from Norway**

EFTA : MAIN INDICATORS

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
EFTA	226.6	223.7	214.4	216.7	217.9	211.5	-0.3%	-0.8%	0.5%	0.5%	-2.9%
Iceland	423.5	457.9	473.3	462.8	475.7	464.8	1.6%	0.7%	-1.1%	2.8%	-2.3%
Norway	291.4	267.5	260.2	258.8	261.8	243.3	-1.7%	-0.6%	-0.3%	1.2%	-7.1%
Switzerland	183.7	188.8	179.1	182.7	181.1	181.7	0.6%	-1.1%	1.0%	-0.9%	0.3%
Gross Inland Consumption per Capita (toe/inhabitant)											
EFTA	3.9	4.1	4.3	4.3	4.4	4.3	1.3%	0.8%	0.5%	0.4%	0.9%
Iceland	6.3	7.2	8.3	7.8	7.9	7.9	2.9%	2.7%	-2.9%	2.0%	0.3%
Norway	4.6	4.9	5.1	5.3	5.5	5.3	1.2%	0.7%	1.8%	4.0%	-2.2%
Switzerland	3.3	3.5	3.7	3.6	3.5	3.6	1.3%	0.8%	-0.2%	-2.8%	0.5%
Energy Dependency (%)											
EFTA	-51.7	-84.7	-163.7	-212.8	-224.7	-257.0	10.4%	14.1%	14.0%	5.6%	14.4%
Iceland	42.2	35.2	37.9	39.1	36.9	38.4	-3.5%	1.5%	1.5%	-5.7%	4.1%
Norway	-189.1	-252.8	-438.5	-537.0	-538.7	-618.4	6.0%	11.6%	10.7%	0.3%	14.8%
Switzerland	68.2	57.8	60.6	59.7	55.0	54.9	-3.2%	0.9%	-0.8%	-7.8%	-0.2%
Share of Total Gross Inland Consumption (%)											
Iceland	3.5	3.9	4.3	4.1	4.1	4.2	2.2%	2.3%	-3.2%	1.8%	0.9%
Norway	45.9	45.2	44.3	45.0	46.5	45.7	-0.3%	-0.4%	0.9%	3.2%	-1.8%
Switzerland	50.7	50.9	51.4	50.9	49.4	50.2	0.1%	0.2%	-0.5%	-3.0%	1.6%
CO2 Emissions (Million tonnes of CO2)											
EFTA	70.8	72.5	73.2	77.0	76.1	77.2	0.5%	0.2%	2.6%	-1.2%	1.4%
Iceland	1.8	1.8	2.1	2.1	2.2	2.3	-0.1%	3.2%	-0.4%	1.7%	5.5%
Norway	27.4	26.7	27.5	29.0	30.3	32.1	-0.5%	0.6%	2.7%	4.4%	6.1%
Switzerland	41.6	44.0	43.5	45.9	43.6	42.8	1.1%	-0.2%	2.7%	-4.9%	-2.0%
CO2 Emissions (t of CO2/inhabitant)											
EFTA	6.7	6.6	6.5	6.7	6.6	6.6	-0.1%	-0.5%	1.8%	-2.0%	0.6%
Iceland	8.1	7.6	8.4	8.1	8.2	8.5	-1.2%	2.0%	-1.5%	0.6%	4.4%
Norway	6.7	6.4	6.5	6.8	7.0	7.4	-0.8%	0.2%	2.2%	4.0%	5.6%
Switzerland	6.6	6.7	6.4	6.6	6.2	6.0	0.5%	-1.1%	1.6%	-5.9%	-3.0%

EFTA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	63.57	83.45	131.17	158.10	165.92	182.47	5.6%	9.5%	9.8%	4.9%	10.0%
Solids	0.20	0.35	0.20	0.24	0.18	0.20	12.0%	-10.5%	8.9%	-25.3%	12.3%
Oil	24.97	39.51	84.35	109.77	117.59	132.04	9.6%	16.4%	14.1%	7.1%	12.3%
Natural gas	22.77	23.41	24.14	25.75	25.10	27.14	0.6%	0.6%	3.3%	-2.5%	8.1%
Nuclear	3.74	5.89	6.18	6.13	6.10	6.37	9.5%	1.0%	-0.4%	-0.4%	4.3%
Hydro & Wind	10.28	11.88	13.34	13.22	13.71	13.42	2.9%	2.3%	-0.5%	3.8%	-2.1%
Geothermal	0.54	0.84	0.96	0.93	0.94	0.93	9.4%	2.8%	-1.9%	0.9%	-0.8%
Other	1.08	1.56	1.98	2.06	2.30	2.36	7.7%	4.8%	2.1%	11.5%	2.8%
Net Imports	-21.40	-38.50	-80.35	-107.33	-114.84	-131.41	12.5%	15.9%	15.6%	7.0%	14.4%
Solids	1.31	1.33	1.07	0.80	0.79	0.96	0.2%	-4.2%	-13.7%	-0.3%	21.1%
Oil	-0.94	-18.07	-59.33	-86.41	-94.65	-109.70	80.6%	26.8%	20.7%	9.5%	15.9%
Crude oil	-11.42	-27.00	-65.26	-90.10	-96.79	-111.52	18.8%	19.3%	17.5%	7.4%	15.2%
Oil products	10.48	8.93	5.92	3.69	2.14	1.82	-3.1%	-7.9%	-21.1%	-41.9%	-14.9%
Natural gas	-21.03	-20.96	-20.54	-20.59	-19.69	-21.64	-0.1%	-0.4%	0.1%	-4.4%	9.9%
Electricity	-0.74	-0.79	-1.55	-1.12	-1.29	-1.03	1.3%	14.3%	-15.0%	15.1%	-20.1%
Gross Inland Consumption	41.14	45.09	48.59	49.90	50.54	50.52	1.9%	1.5%	1.3%	1.3%	0.0%
Solids	1.35	1.74	1.29	1.03	1.07	1.24	5.2%	-5.9%	-10.7%	4.5%	15.2%
Oil	23.16	21.51	22.77	22.48	22.27	21.72	-1.5%	1.1%	-0.6%	-0.9%	-2.5%
Natural gas	1.73	2.45	3.61	5.16	5.41	5.50	7.1%	8.1%	19.6%	4.9%	1.6%
Other (1)	14.90	19.39	20.93	21.23	21.78	22.06	5.4%	1.5%	0.7%	2.6%	1.3%
Electricity Generation in TWh	135.11	162.17	180.74	179.43	184.85	182.64	3.7%	2.2%	-0.4%	3.0%	-1.2%
Nuclear	14.35	22.56	23.64	23.45	23.35	24.36	9.5%	0.9%	-0.4%	-0.4%	4.3%
Hydro & wind	119.51	138.14	155.16	153.69	159.66	155.93	2.9%	2.3%	-0.5%	3.8%	-2.2%
Thermal	1.26	1.47	1.96	2.29	2.04	2.34	3.2%	5.9%	8.2%	-11.0%	14.7%
Generation Capacity in GWe	34.79	39.76	43.49	43.88	43.96	43.98	2.7%	1.8%	0.4%	0.2%	0.1%
Nuclear	1.94	2.92	2.95	2.99	2.99	2.99	8.5%	0.2%	0.6%	0.2%	0.0%
Hydro & wind	31.77	35.64	39.31	39.66	39.72	39.74	2.3%	2.0%	0.4%	0.2%	0.1%
Thermal	1.08	1.20	1.24	1.24	1.25	1.25	2.0%	0.7%	0.1%	0.6%	0.2%
Average Load Factor in %	44.3	46.6	47.4	46.7	48.0	47.4	1.0%	0.4%	-0.8%	2.8%	-1.2%
Fuel Inputs for Thermal Power Generation	0.48	0.89	1.11	1.21	1.25	1.29	13.2%	4.5%	4.3%	2.9%	3.8%
Solids	0.02	0.05	0.05	0.04	0.04	0.04	16.9%	-0.3%	-12.0%	-4.1%	9.2%
Oil	0.16	0.18	0.10	0.20	0.08	0.05	2.9%	-10.7%	37.7%	-58.7%	-31.9%
Gas	0.10	0.10	0.10	0.11	0.11	0.13	-1.4%	1.0%	4.5%	0.4%	18.7%
Geothermal	0.04	0.22	0.36	0.37	0.38	0.38	38.2%	10.6%	1.1%	3.0%	0.1%
Other	0.15	0.35	0.50	0.50	0.64	0.69	17.7%	7.6%	0.0%	28.1%	7.7%
Average Thermal Efficiency in %	22.5	14.2	15.1	16.3	14.1	15.5	-8.8%	1.3%	3.7%	-13.5%	10.4%
Non-Energy Uses	2.32	2.57	2.58	2.44	2.38	2.30	2.0%	0.1%	-2.8%	-2.5%	-3.5%
Total Final Energy Demand	33.02	35.79	36.85	37.63	37.60	37.75	1.6%	0.6%	1.0%	-0.1%	0.4%
Solids	1.27	1.60	1.23	1.00	1.02	1.15	4.8%	-5.1%	-10.0%	2.1%	12.6%
Oil	19.76	19.26	19.03	19.26	18.84	18.94	-0.5%	-0.2%	0.6%	-2.2%	0.6%
Gas	0.73	1.14	1.51	1.80	1.90	1.87	9.4%	5.9%	9.2%	5.2%	-1.8%
Electricity	9.71	11.71	12.67	13.00	13.14	13.04	3.8%	1.6%	1.3%	1.1%	-0.8%
Heat	0.63	0.87	0.97	1.03	1.08	1.10	6.6%	2.3%	3.2%	4.3%	2.2%
Other	0.93	1.22	1.44	1.54	1.63	1.65	5.5%	3.4%	3.3%	6.0%	1.5%
CO2 Emissions in Mt of CO2	70.8	72.5	73.2	77.0	76.1	77.2	0.5%	0.2%	2.6%	-1.2%	1.4%
Indicators											
Population (Million)	10.63	10.93	11.33	11.52	11.61	11.71	0.6%	0.7%	0.8%	0.8%	0.8%
GDP (index 1985=100)	90.1	100.0	112.4	114.2	115.1	118.5	2.1%	2.4%	0.8%	0.7%	3.0%
Gross Inl Cons./GDP (toe/1985 MECU)	226.6	223.7	214.4	216.7	217.9	211.5	0.3%	-0.8%	0.5%	0.5%	-2.9%
Gross Inl Cons./Capita (toe/inhabitant)	3.9	4.1	4.3	4.3	4.4	4.3	1.3%	0.8%	0.5%	0.4%	-0.9%
Electricity Generated/Capita (kWh/inhabitant)	12707	14837	15952	15577	15916	15596	3.1%	1.5%	-1.2%	2.2%	-2.0%
CO2 Emissions/Capita (t of CO2/inhabitant)	6.7	6.6	6.5	6.7	6.6	6.6	0.1%	-0.5%	1.8%	-2.0%	0.6%
Import Dependency %	-51.7	-84.7	-163.7	-212.8	-224.7	-257.0	10.4%	14.1%	14.0%	5.6%	14.4%

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

ICELAND : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	0.80	1.16	1.33	1.30	1.32	1.32	7.7%	2.7%	-1.0%	1.7%	-0.3%
Solids	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	0.27	0.32	0.36	0.37	0.38	0.39	3.7%	2.6%	1.3%	3.6%	1.1%
Geothermal	0.54	0.84	0.96	0.93	0.94	0.93	9.4%	2.8%	-1.9%	0.9%	-0.8%
Other	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	0.0%
Net Imports	0.60	0.62	0.81	0.80	0.78	0.82	0.4%	5.6%	-0.6%	-2.2%	4.9%
Solids	0.02	0.07	0.06	0.05	0.05	0.07	30.0%	-0.3%	-15.2%	-2.3%	49.4%
Oil	0.59	0.55	0.75	0.76	0.74	0.75	-1.2%	6.3%	0.5%	-2.2%	2.1%
Crude oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Oil products	0.59	0.55	0.75	0.76	0.74	0.75	-1.2%	6.3%	0.5%	-2.2%	2.1%
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Gross Inland Consumption	1.43	1.75	2.11	2.03	2.09	2.11	4.1%	3.8%	-1.9%	3.1%	0.8%
Solids	0.02	0.07	0.06	0.05	0.05	0.07	30.0%	-0.3%	-15.2%	-2.3%	49.4%
Oil	0.61	0.52	0.72	0.69	0.73	0.73	-3.1%	6.5%	-2.3%	6.1%	-0.2%
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other (1)	0.80	1.16	1.33	1.30	1.32	1.32	7.7%	2.7%	-1.0%	1.7%	-0.3%
Electricity Generation in TWh	3.18	3.90	4.51	4.55	4.73	4.78	4.1%	2.9%	0.4%	4.0%	1.1%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	3.09	3.70	4.20	4.31	4.47	4.52	3.7%	2.6%	1.3%	3.6%	1.1%
Thermal	0.10	0.20	0.31	0.24	0.26	0.27	15.1%	9.3%	-12.2%	10.6%	1.5%
Generation Capacity in GWe	0.69	0.95	0.94	1.07	1.08	1.08	6.5%	-0.1%	6.4%	0.7%	0.2%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	0.55	0.76	0.76	0.88	0.88	0.88	6.7%	0.0%	7.8%	0.0%	0.0%
Thermal	0.15	0.19	0.19	0.19	0.20	0.20	5.6%	-0.3%	0.3%	4.2%	1.0%
Average Load Factor in %	52.5	47.0	54.5	48.6	50.1	50.6	-2.2%	3.0%	-5.6%	3.2%	0.9%
Fuel Inputs for Thermal Power Generation	0.05	0.22	0.36	0.37	0.38	0.38	32.5%	10.6%	1.1%	3.0%	-0.1%
Solids	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Oil	0.01	0.00	0.00	0.00	0.00	0.00	-37.0%	0.0%	0.0%	0.0%	0.0%
Gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Geothermal	0.04	0.22	0.36	0.37	0.38	0.38	38.2%	10.6%	1.1%	3.0%	-0.1%
Other	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Average Thermal Efficiency in %	15.6	7.7	7.3	5.5	5.9	6.0	-13.1%	-1.1%	-13.1%	7.4%	1.6%
Non-Energy Uses	0.02	0.02	0.07	0.08	0.07	0.08	3.1%	30.0%	4.4%	-10.6%	11.8%
Total Final Energy Demand	1.27	1.47	1.66	1.67	1.72	1.72	3.0%	2.5%	0.2%	3.4%	-0.3%
Solids	0.02	0.07	0.06	0.05	0.05	0.07	30.0%	-0.3%	-15.2%	-2.3%	49.4%
Oil	0.57	0.51	0.61	0.63	0.64	0.65	-2.0%	3.7%	1.4%	2.1%	1.6%
Gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Electricity	0.25	0.29	0.34	0.33	0.35	0.36	3.3%	3.0%	-0.5%	5.5%	2.9%
Heat	0.44	0.60	0.65	0.66	0.68	0.63	6.5%	1.4%	0.7%	4.1%	-7.1%
Other	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
CO2 Emissions in Mt of CO2	1.8	1.8	2.1	2.1	2.2	2.3	0.1%	3.2%	-0.4%	1.7%	5.5%
Indicators											
Population (Million)	0.23	0.24	0.26	0.26	0.26	0.27	1.1%	1.1%	1.1%	1.1%	1.1%
GDP (Index 1985=100)	88.6	100.0	116.7	115.0	115.3	119.0	2.4%	3.1%	-0.8%	0.3%	3.2%
Gross Inl Cons./GDP (toe/1985 MECU)	423.5	457.9	473.3	462.8	475.7	464.8	1.6%	0.7%	-1.1%	2.8%	-2.3%
Gross Inl Cons./Capita (toe/inhabitant)	6.3	7.2	8.3	7.8	7.9	7.9	2.9%	2.7%	-2.9%	2.0%	-0.3%
Electricity Generated/Capita (kWh/inhabitant)	13965	16183	17686	17450	17952	17960	3.0%	1.8%	-0.7%	2.9%	0.0%
CO2 Emissions/Capita (t of CO2/inhabitant)	8.1	7.6	8.4	8.1	8.2	8.5	-1.2%	2.0%	-1.5%	0.6%	4.4%
Import Dependency %	42.2	35.2	37.9	39.1	36.9	38.4	-3.5%	1.5%	1.5%	-5.7%	4.1%

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

NORWAY : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	55.74	72.88	120.12	146.81	154.19	170.15	5.5%	10.5%	10.6%	5.0%	10.4%
Solids	0.20	0.35	0.20	0.24	0.18	0.20	12.0%	-10.5%	8.9%	-25.3%	12.3%
Oil	24.97	39.51	84.35	109.77	117.59	132.04	9.6%	16.4%	14.1%	7.1%	12.3%
Natural gas	22.77	23.40	24.14	25.75	25.10	27.14	0.5%	0.6%	3.3%	-2.5%	8.1%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	7.19	8.80	10.42	10.03	10.25	9.66	4.1%	3.4%	-1.9%	2.2%	-5.8%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.61	0.81	1.00	1.01	1.07	1.10	5.9%	4.3%	0.6%	5.5%	3.2%
Net Imports	-36.20	-52.38	-96.29	-123.28	-129.34	-146.15	7.7%	12.9%	13.2%	4.9%	13.0%
Solids	0.79	0.87	0.67	0.62	0.64	0.78	2.0%	-5.2%	-3.5%	3.2%	22.1%
Oil	-15.05	-30.99	-73.43	-100.64	-107.61	-123.29	15.5%	18.8%	17.1%	6.9%	14.6%
Crude oil	-16.13	-31.24	-68.43	-94.49	-101.66	-116.51	14.1%	17.0%	17.5%	7.6%	14.6%
Oil products	1.08	0.25	-5.00	-6.15	-5.95	-6.78	-25.5%	-	11.0%	-3.3%	13.9%
Natural gas	-21.90	-22.22	-22.17	-22.52	-21.70	-23.63	0.3%	0.0%	0.8%	-3.6%	8.9%
Electricity	-0.04	-0.05	-1.37	-0.75	-0.67	-0.01	3.3%	96.4%	-25.9%	-10.9%	-98.3%
Gross Inland Consumption	18.86	20.39	21.51	22.47	23.49	23.06	1.6%	1.1%	2.2%	4.5%	-1.8%
Solids	1.01	1.17	0.86	0.77	0.85	0.99	3.1%	-5.9%	-5.6%	10.6%	16.3%
Oil	9.23	8.47	8.62	8.17	8.59	7.81	-1.7%	0.3%	-2.6%	5.2%	-9.1%
Natural gas	0.87	1.18	1.98	3.24	3.39	3.51	6.3%	10.9%	28.0%	4.8%	3.4%
Other (1)	7.76	9.57	10.05	10.30	10.65	10.76	4.3%	1.0%	1.2%	3.5%	1.0%
Electricity Generation in TWh	83.75	102.73	121.61	117.12	119.70	113.01	4.2%	3.4%	-1.9%	2.2%	-5.6%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	83.61	102.38	121.15	116.68	119.22	112.35	4.1%	3.4%	-1.9%	2.2%	-5.8%
Thermal	0.14	0.35	0.47	0.44	0.48	0.66	20.4%	6.1%	-2.7%	8.4%	38.7%
Generation Capacity in GWe	20.01	23.66	27.13	27.28	27.33	27.35	3.4%	2.8%	0.3%	0.2%	0.1%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & wind	19.78	23.41	26.88	27.03	27.08	27.10	3.4%	2.8%	0.3%	0.2%	0.1%
Thermal	0.24	0.25	0.25	0.25	0.25	0.25	1.5%	-0.3%	0.2%	0.0%	0.0%
Average Load Factor in %	47.8	49.6	51.2	49.0	50.0	47.2	0.7%	0.6%	-2.1%	2.0%	-5.7%
Fuel Inputs for Thermal Power Generation	0.04	0.10	0.11	0.11	0.11	0.14	23.1%	1.3%	-0.4%	7.0%	22.8%
Solids	0.01	0.02	0.04	0.04	0.04	0.04	20.5%	12.7%	0.2%	-0.7%	7.6%
Oil	0.03	0.07	0.00	0.00	0.00	0.00	19.9%	-50.5%	-100.0%	-	-
Gas	0.00	0.00	0.00	0.00	0.00	0.02	-	-	-	-	1438.0%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.00	0.01	0.07	0.07	0.08	0.08	-	42.8%	0.8%	9.0%	6.2%
Average Thermal Efficiency in %	33.1	29.5	37.2	35.4	35.9	40.4	2.2%	4.7%	-2.5%	1.3%	12.7%
Non-Energy Uses	1.67	2.03	1.94	1.84	1.81	1.70	4.0%	-0.8%	-2.6%	-1.8%	-5.9%
Total Final Energy Demand	14.85	15.94	16.22	15.99	16.50	16.89	1.4%	0.3%	-0.7%	3.2%	2.4%
Solids	0.94	1.06	0.82	0.75	0.80	0.91	2.5%	-5.0%	-4.9%	7.3%	13.1%
Oil	6.66	6.18	6.11	5.70	5.92	6.26	-2.1%	-0.2%	-3.4%	3.9%	5.6%
Gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Electricity	6.43	7.86	8.33	8.55	8.72	8.64	4.1%	1.2%	1.3%	2.0%	-0.9%
Heat	0.00	0.04	0.07	0.09	0.10	0.10	-	14.1%	11.1%	10.9%	2.8%
Other	0.61	0.79	0.88	0.90	0.95	0.98	5.3%	2.1%	1.4%	5.1%	3.5%
CO2 Emissions in Mt of CO2	27.4	26.7	27.5	29.0	30.3	32.1	-0.5%	0.6%	2.7%	4.4%	6.1%
Indicators											
Population (Million)	4.09	4.15	4.24	4.28	4.30	4.32	0.3%	0.4%	0.4%	0.4%	0.4%
GDP (index 1985=100)	84.9	100.0	108.5	113.9	117.7	124.4	3.3%	1.6%	2.5%	3.3%	5.7%
Gross Inl Cons./GDP (toe/1985 MECU)	291.4	267.5	260.2	258.8	261.8	243.3	-1.7%	-0.6%	-0.3%	1.2%	-7.1%
Gross Inl Cons./Capita (toe/inhabitant)	4.6	4.9	5.1	5.3	5.5	5.3	1.2%	0.7%	1.8%	4.0%	-2.2%
Electricity Generated/Capita (kWh/inhabitant)	20497	24736	28675	27369	27847	26175	3.8%	3.0%	-2.3%	1.7%	-6.0%
CO2 Emissions/Capita (t of CO2/inhabitant)	6.7	6.4	6.5	6.8	7.0	7.4	-0.8%	0.2%	2.2%	4.0%	5.6%
Import Dependency %	-189.1	-252.8	-438.5	-537.0	-538.7	-618.4	6.0%	11.6%	10.7%	0.3%	14.8%

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

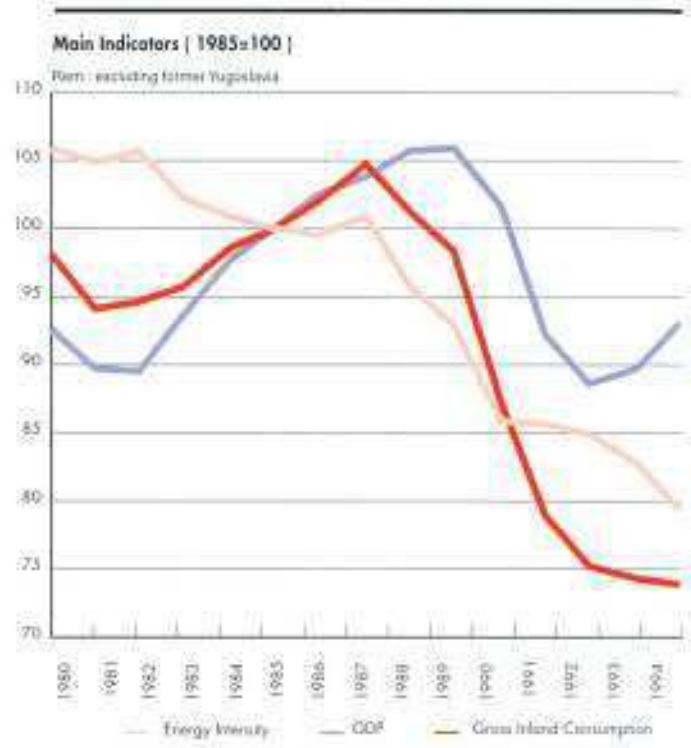
SWITZERLAND : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	7.03	9.41	9.72	9.99	10.41	11.00	6.0%	0.7%	1.4%	4.2%	5.7%
Solids	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Oil	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Natural gas	0.00	0.02	0.00	0.00	0.00	0.00	-	-27.5%	-11.5%	-18.2%	-55.4%
Nuclear	3.74	5.89	6.18	6.13	6.10	6.37	9.5%	1.0%	-0.4%	-0.4%	4.3%
Hydro & Wind	2.82	2.76	2.56	2.81	3.08	3.37	0.5%	-1.4%	4.8%	9.4%	9.6%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.47	0.75	0.98	1.05	1.23	1.26	10.0%	5.4%	3.5%	17.3%	2.4%
Net Imports	14.20	13.26	15.13	15.16	13.72	13.91	-1.4%	2.7%	0.1%	-9.5%	1.4%
Solids	0.51	0.39	0.34	0.13	0.11	0.11	-5.1%	-2.9%	-38.3%	-16.7%	3.1%
Oil	13.53	12.37	13.35	13.47	12.22	12.83	-1.8%	1.5%	0.5%	-9.3%	5.0%
Crude oil	4.72	4.23	3.18	4.39	4.86	4.98	-2.1%	-5.6%	17.5%	10.8%	2.4%
Oil products	8.81	8.14	10.17	9.08	7.36	7.85	-1.6%	4.6%	-5.5%	-19.0%	6.7%
Natural gas	0.87	1.25	1.63	1.92	2.02	1.99	7.6%	5.4%	8.7%	4.9%	-1.3%
Electricity	-0.70	-0.75	-0.18	-0.37	-0.62	-1.02	1.2%	-24.7%	42.6%	67.8%	64.5%
Gross Inland Consumption	20.84	22.95	24.97	25.40	24.96	25.34	1.9%	1.7%	0.8%	-1.7%	1.6%
Solids	0.33	0.51	0.36	0.21	0.18	0.18	9.2%	-6.7%	-23.2%	-15.9%	1.1%
Oil	13.31	12.51	13.43	13.63	12.95	13.18	-1.2%	1.4%	0.7%	-4.9%	1.8%
Natural gas	0.87	1.27	1.63	1.92	2.02	1.99	7.9%	5.2%	8.6%	4.9%	-1.4%
Other (1)	6.33	8.66	9.55	9.63	9.80	9.99	6.5%	2.0%	0.4%	1.8%	1.9%
Electricity Generation in TWh	48.18	55.54	54.62	57.76	60.43	64.84	2.9%	-0.3%	2.8%	4.6%	7.3%
Nuclear	14.35	22.56	23.64	23.45	23.35	24.36	9.5%	0.9%	-0.4%	-0.4%	4.3%
Hydro & wind	32.81	32.05	29.80	32.70	35.78	39.07	-0.5%	-1.4%	4.8%	9.4%	9.2%
Thermal	1.02	0.93	1.19	1.61	1.30	1.41	-1.9%	5.0%	16.7%	-19.5%	8.5%
Generation Capacity in GWe	14.09	15.15	15.42	15.54	15.55	15.55	1.5%	0.3%	0.4%	0.1%	0.0%
Nuclear	1.94	2.92	2.95	2.99	2.99	2.99	8.5%	0.2%	0.6%	0.2%	0.0%
Hydro & wind	11.45	11.48	11.67	11.75	11.76	11.76	0.1%	0.3%	0.4%	0.1%	0.0%
Thermal	0.70	0.75	0.80	0.80	0.80	0.80	1.4%	1.3%	0.0%	0.0%	0.0%
Average Load Factor in %	39.0	41.8	40.4	42.4	44.4	47.6	1.4%	-0.7%	2.4%	4.5%	7.3%
Fuel Inputs for Thermal Power Generation	0.39	0.57	0.64	0.74	0.75	0.77	7.9%	2.4%	6.9%	2.3%	2.9%
Solids	0.02	0.03	0.01	0.00	0.00	0.00	14.9%	-14.5%	-56.4%	-50.0%	-50.0%
Oil	0.12	0.11	0.10	0.19	0.08	0.05	-1.4%	-2.1%	39.4%	-59.0%	-32.3%
Gas	0.10	0.10	0.10	0.11	0.11	0.11	-1.4%	1.0%	4.5%	-0.8%	2.1%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.15	0.33	0.43	0.43	0.56	0.61	16.9%	5.1%	-0.1%	31.3%	7.9%
Average Thermal Efficiency in %	22.5	14.0	15.8	18.9	14.8	15.6	-9.1%	2.6%	9.1%	-21.3%	5.4%
Non-Energy Uses	0.64	0.52	0.57	0.52	0.50	0.52	-3.9%	1.8%	-4.3%	-3.7%	2.9%
Total Final Energy Demand	16.91	18.38	18.97	19.97	19.38	19.14	1.7%	0.6%	2.6%	-3.0%	-1.2%
Solids	0.31	0.47	0.34	0.21	0.17	0.18	8.7%	-6.2%	-22.4%	-15.7%	0.8%
Oil	12.33	12.57	12.30	12.92	12.27	12.03	0.4%	-0.4%	2.5%	-5.0%	-1.9%
Gas	0.72	1.14	1.51	1.80	1.90	1.87	9.5%	5.9%	9.2%	5.2%	-1.8%
Electricity	3.03	3.55	4.01	4.12	4.06	4.03	3.2%	2.4%	1.4%	-1.3%	-0.7%
Heat	0.19	0.23	0.25	0.29	0.29	0.36	3.5%	2.0%	7.2%	2.8%	23.7%
Other	0.32	0.42	0.56	0.63	0.68	0.67	5.9%	5.8%	6.2%	7.4%	-1.2%
CO2 Emissions in Mt of CO2	41.6	44.0	43.5	45.9	43.6	42.8	1.1%	-0.2%	2.7%	-4.9%	-2.0%
Indicators											
Population (Million)	6.32	6.54	6.83	6.98	7.05	7.13	0.7%	0.9%	1.1%	1.1%	1.1%
GDP (index 1985=100)	93.3	100.0	114.7	114.4	113.4	114.8	1.4%	2.8%	-0.2%	-0.9%	1.2%
Gross Inl Cons./GDP (toe/1985 MECU)	183.7	188.8	179.1	182.7	181.1	181.7	0.6%	-1.1%	1.0%	-0.9%	0.3%
Gross Inl Cons./Capita (toe/inhabitant)	3.3	3.5	3.7	3.6	3.5	3.6	1.3%	0.8%	-0.2%	-2.8%	0.5%
Electricity Generated/Capita (kWh/inhabitant)	7624	8497	7992	8277	8568	9098	2.2%	-1.2%	1.8%	3.5%	6.2%
CO2 Emissions/Capita (t of CO2/inhabitant)	6.6	6.7	6.4	6.6	6.2	6.0	0.5%	-1.1%	1.6%	-5.9%	-3.0%
Import Dependency %	68.2	57.8	60.6	59.7	55.0	54.9	-3.2%	0.9%	-0.8%	-7.8%	-0.2%

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

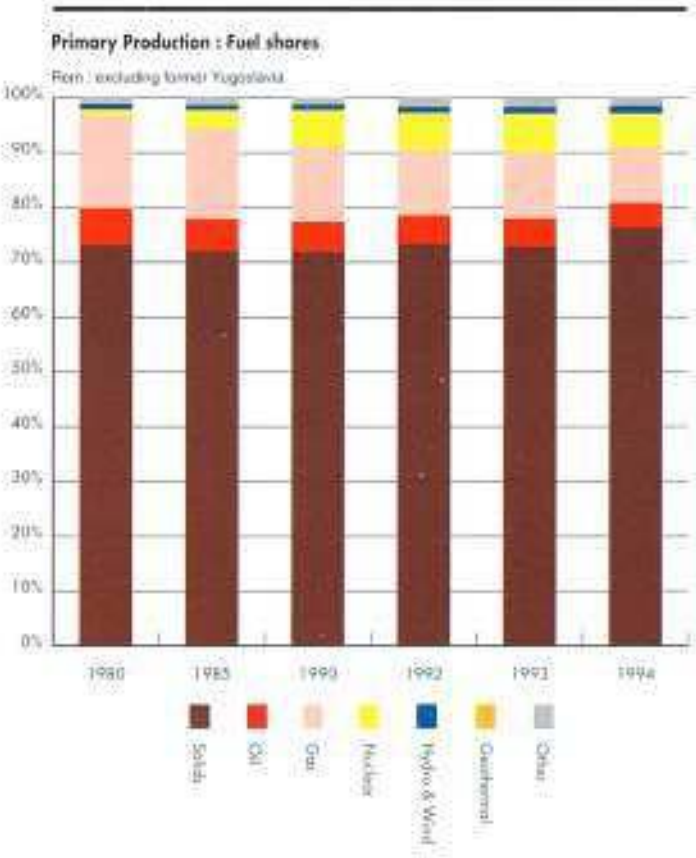
PART III CENTRAL AND EASTERN EUROPE

This region includes the following countries: Albania, Bulgaria, the Czech Republic, Hungary, Poland, Romania, the Slovak Republic and the Republics of the former Yugoslavia. Together they represent a rather stable population of around 120 million inhabitants. Given the lack of sufficient statistical data for the necessary time series, the Czech and Slovak Republics will be shown together as "former Czechoslovakia"; while "former Yugoslavia" includes all Republics emerging from the splitting of that country. For the most recent years (period 1991-1994), and when available, the data for the newly formed independent states have been given as a complement to existing aggregated data. This reflects, as realistically as possible, the new geopolitical reality of the region.



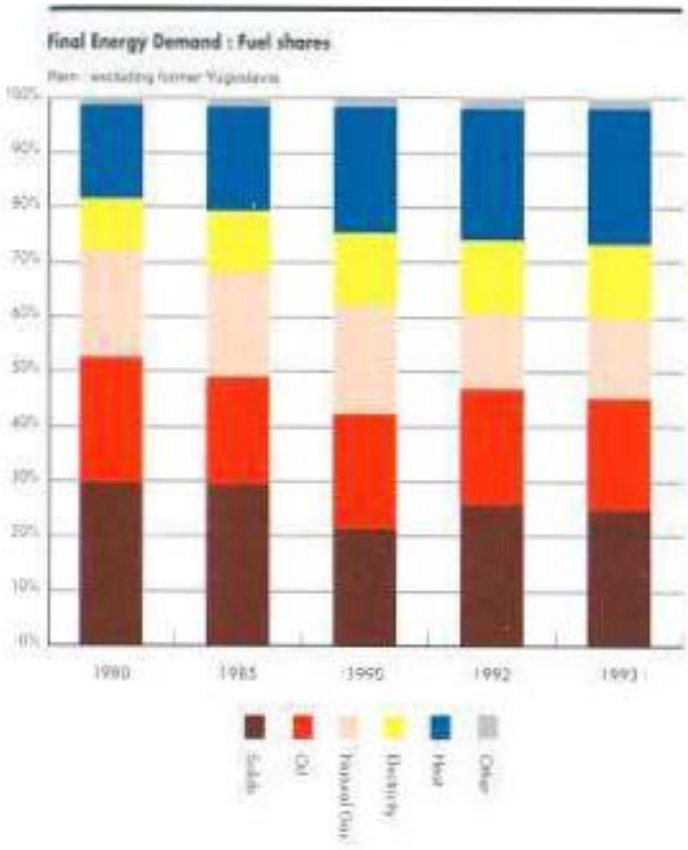
Given the economic crisis faced by the Central and Eastern European Countries since 1985, there is, in general, a common downward trend in both energy production (in 1994, down to 72% of its 1985 value), and gross inland consumption (in 1994, down to 74% of its 1985 value), over the last 10 years.

As a whole, the **energy needs** of this region depended on external supplies for 24% in 1994; this is about the 1980 value, after a peak to 27% in 1990. Among the countries of this region, Bulgaria is the most dependent on imports (57% in 1994), but it has strongly decreased this degree of dependency since 1980 (73%). On the contrary, Poland which was almost self sufficient in 1985, has steadily increased its dependency to 5% in 1992 before falling down back to 1.4% in 1994. It must be noted that the split of the former Czechoslovakia modified this pattern a lot due to the fact that the Slovak Republic with only very limited national resources of solids and some nuclear, depends on external supplies for about 70% in 1993 and 1994. On the other hand, the Czech Republic benefits from large solids production to keep its energy dependency below 20% (16% in 1992 and 19% in 1994). In general, the reduction of primary production (-27% for solids since 1985, -37% for oil and -50% for gas) was until now compensated by the decline in primary energy needs.



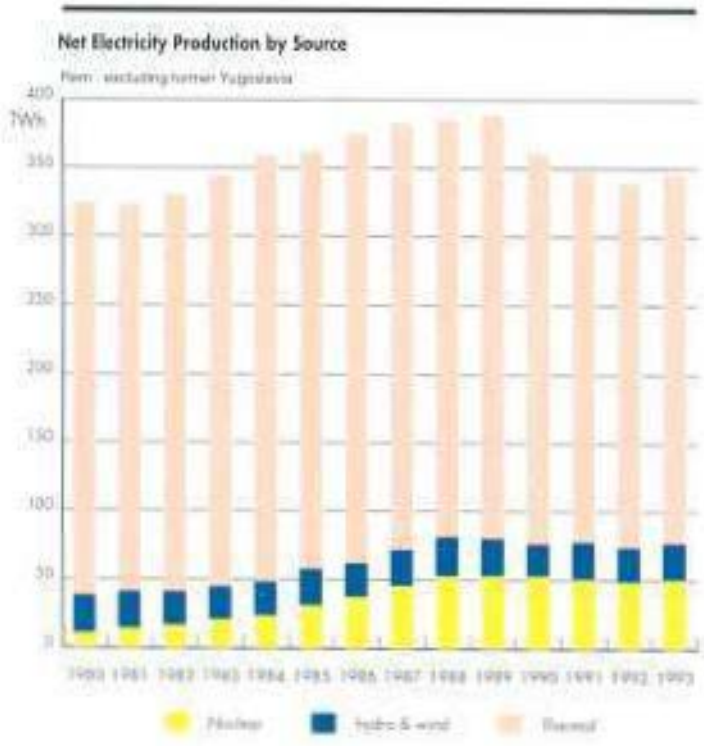
The Central and Eastern Countries together have been a

[1] Analysis excluded former Yugoslavia for obvious statistical reasons and to avoid to transfert to the whole Central and Eastern European countries the consequence for trend calculation of the local war.



net importer of crude oil and natural gas, mainly from the former USSR. But, since 1990, the volumes concerned have largely decreased: -18% (or -9 Mtoe) for crude oil and -19% (or -6 Mtoe) for natural gas. On the other hand, this region remains a net oil products exporter but in that case also the volumes have been reduced to only 2 Mtoe in 1994. Total oil imports represented 83% of total oil requirements in 1994; increasing slightly since 1985 (80%). Over the same period the oil production of Romania, the main producer of the group, dropped to reach in 1994 only 65% of its 1985 value (from 10.4 Mtoe to 6.7 Mtoe).

Futhermore the Central and Eastern Countries together have been net exporters of coal, still, and by far and away, the most important energy source in these countries over the last ten years (7.7 Mtoe in 1985 up to 12.0 Mtoe in 1994, or 8.8% of the global coal production of these countries). Solids are mainly produced in Poland (90.4 Mtoe in 1994 versus 118.7 Mtoe in 1985) and in the Czech Republic (28.7 Mtoe in 1994 versus 34.8 Mtoe in 1991). If the production follows a declining trend in the Czech Republic, the Polish production on the contrary is stabilised since 1992.



Final energy demand in Central and Eastern Countries peaked in 1987 (241.7 Mtoe) and have declined since then. Preliminary data indicates that, in 1994, pushed by economic recovery, final energy demand will be quite stabilised. In 1990, total final energy demand was 22% below the 1987 level, and in 1993, 37% below it. The drop in the demand was mainly at the expense of solids (-42% between 1985 and 1993) and gas (-47%). Oil, sustained by the transport sector and the growing number of private cars, limits its decline to 28% and electricity, contributing largely to the modernisation of industries and improvements of life standards, to 17%. In that way, oil, electricity and heat are reinforcing their shares in the total final demand.

Central and Eastern European countries have reinforced of their self-sufficiency for **electricity supply** since 1990 to be almost totally self-sufficient in 1994. Electricity is mainly produced by thermal power stations (78% in 1993 declining from 84% in 1985); nuclear energy is the second source of electricity (15% in 1993 increasing from 9% in 1985), while hydro and wind energy cover the complement (7% in 1993 with an absolute production

Thermal power stations are mainly fed with solid fuels (for about 80% in 1993), oil and gas covering respectively 9% and 11% of the needs of thermal power stations.

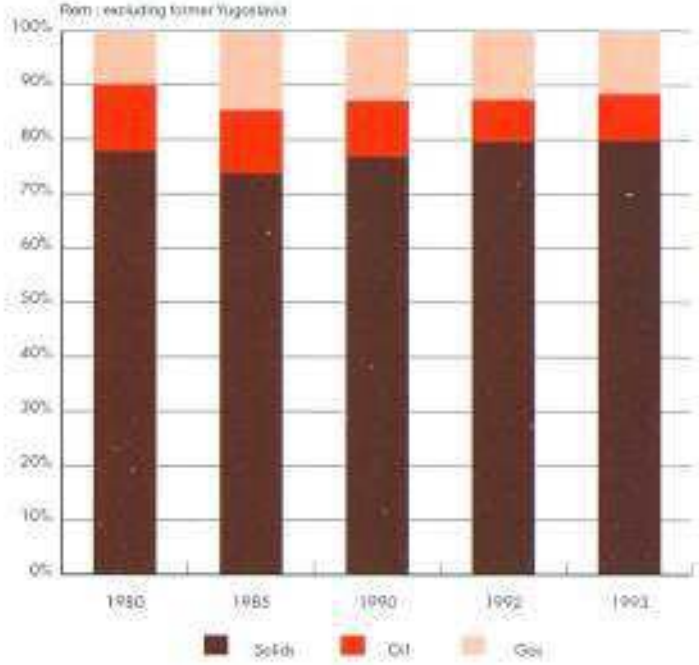
The **installed capacity** in this region, excluding former Yugoslavia, is about 93.5 GWe, of which 76% are thermal power stations, 15% hydro and other renewables and 9% nuclear power stations. Since 1990, the main investments concern refurbishment of existing thermal power stations burning solid fuels including air pollution abatement equipment to improve air quality in all this region. Nuclear power stations are located in Bulgaria, Hungary, Czech and Slovak Republics and Slovenia. The average load factor slowed down to 42% in 1993 from 48% in 1985 and 44% in 1990, in relation to the reduction of electricity demand.

As an average, the efficiency of the power stations in this region has been stable for 15 years around 25%, without considering the associated production of heat to supply heat networks for industrial purposes and urban heating.

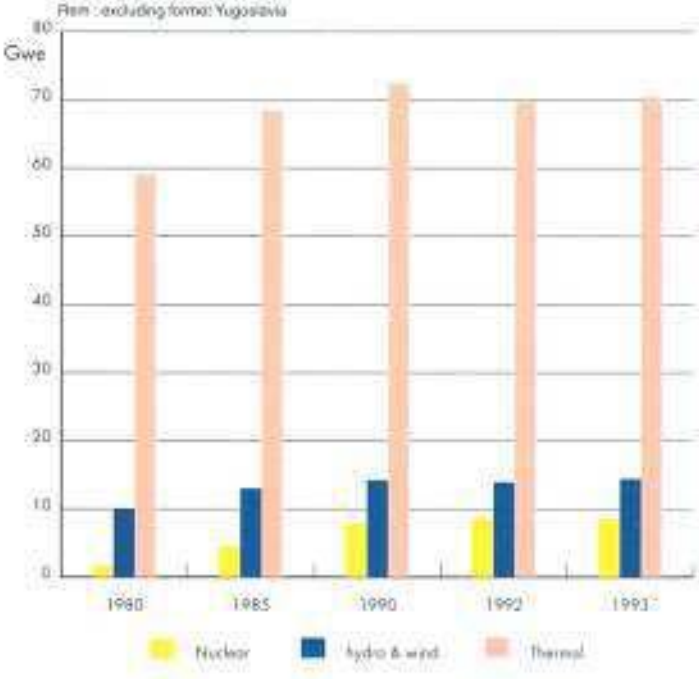
In terms of **gross inland consumption per capita**, there is a clear negative trend since 1987 (from 3.24 Mtoe per capita in 1987 to 2.92 Mtoe in 1990 and 2.47 Mtoe in 1994). This is the result of many factors. First, the economic crisis associated with political reforms inducing in some countries some energy shortages affecting mainly the domestic sector (heating) and individual transport, and secondly, the restructuring of industry and the modernisation of all equipment (industrial processes, insulation and equipment in households, vehicles) which reduce specific consumption by uses. Average consumption per capita in 1993 was 37% below the European Union average despite a quite higher energy intensity reflecting the present lower standards of life in this region. The strongest drop occurred in Albania (-49% from 1985 to 1994), while in Hungary this indicator only dropped 16% between 1985 and 1994. But, any comparison between Central and Eastern countries must be held very carefully depending on their level of industrialisation and the starting date of rationalisation and modernisation.

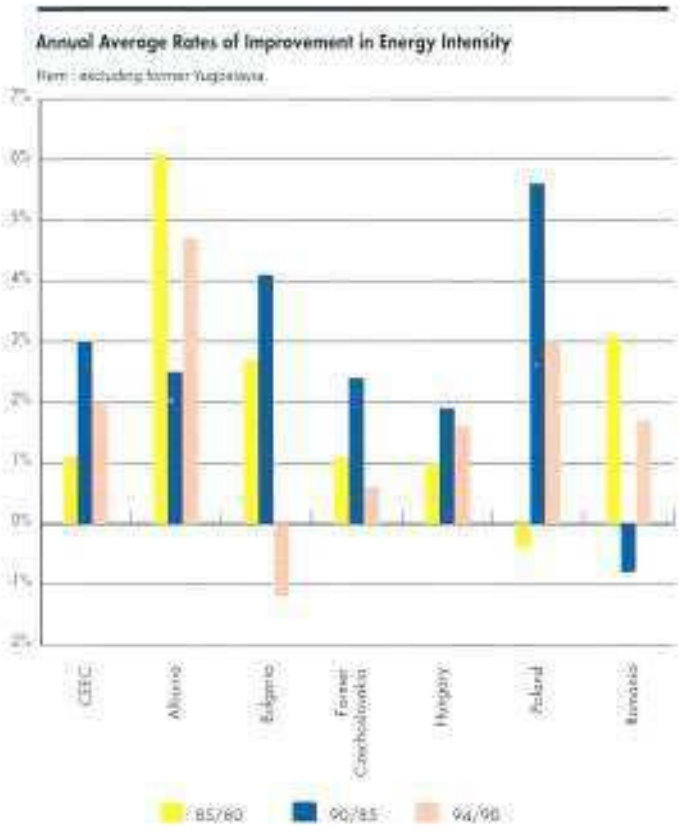
The Gross Inland Energy Consumption and the GDP curves both grew, in almost perfect synchronisation, over the period 1980 to 1988. But, from 1988, the reforms

Inputs for Thermal Power Generation : Fuel Shares



Net Electricity Generation capacity





engaged to restructure the economy, and in particular the industrial sector, stopped the growth of the gross inland energy consumption. The political changes that happened in most countries between 1990 and 1993 led to a global decrease in GDP (-13% between 1990 and 1992, excluding former Yugoslavia). At the same time, gross inland consumption dropped by 14%, inducing a quite stable energy intensity. From that moment, and under the impulse of foreign aid, an industrial reconversion took place, leading to a further decrease in energy intensity (-6.5% on the period 1993-94), while the GDP exhibited clear signs of recovering (+1.3% in 1993 and +3.8% in 1994).

Energy intensity dropped by about 21% since 1985. The major gains were observed in Poland (34%) and in Albania (27%). On the other hand Romania deeply affected by the economic crisis (GDP reduced by 31% between 1985 and 1994) demonstrated only a reduction of 3%. In the other countries the gain was in the range of 15%. The average energy intensity of this region was more than three times higher than in the European Union (4.1 times in 1985 and 3.4 times in 1994).

As a direct consequence of energy requirements reduction, **CO2 emissions** dropped between 1985 and 1993 from 905 million tonnes to 651 million tonnes, a reduction of about 28%. The CO2 emissions per capita which still represented 107% of the average EU level in 1985, account for only 79% of this level in 1993.

Energy developments in each Central and Eastern European Country are described in the following summary energy balances, presenting data for the newly

Central and Eastern Europe : Recent evolution (1990-1994)

- **Period marked by reforms and restructuration in many countries inducing a deep regression but GDP rebounded after 1993**
- **Heterogeneous situation between countries**
- **Continuing decrease of energy consumption (Gross Inland consumption: -14 %)**
- **Energy intensity more than three times higher than the average EU one's**
- **C02 emissions per capita lower than the average EU level**

CENTRAL AND EASTERN EUROPE : MAIN INDICATORS

	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
CEEC [2]	1361.9	1285.9	1104.3	1091.9	1064.8	1020.4	-1.1%	-3.0%	-0.6%	-2.5%	-4.2%
Albania	1475.3	1077.0	948.5	1217.3	851.4	781.6	-6.1%	-2.5%	13.3%	-30.1%	-8.2%
Bulgaria	1539.7	1345.9	1092.5	1015.2	1140.2	1145.4	-2.7%	-4.1%	-3.6%	12.3%	0.5%
Former Czechoslovakia [1]	1505.4	1426.0	1261.0	1320.7	1272.0	1231.0	-1.1%	-2.4%	2.3%	-3.7%	-3.2%
Czech Republic	-	-	-	1362.9	1292.0	1213.0	-	-	-	-5.2%	-6.1%
Slovakia	-	-	-	1244.9	1238.7	1240.3	-	-	-	-0.5%	0.1%
Hungary	1187.8	1132.3	1028.4	1010.8	1003.4	965.8	-1.0%	-1.9%	-0.9%	-0.7%	-3.8%
Poland	1340.6	1368.6	1025.2	995.0	976.9	909.0	0.4%	-5.6%	-1.5%	-1.8%	-7.0%
Romania	1275.2	1088.4	1133.9	1152.0	1065.3	1056.9	-3.1%	0.8%	0.8%	-7.5%	-0.8%
Former Yugoslavia	598.7	714.6	805.9	910.7	974.0	na	3.6%	2.4%	6.3%	6.9%	na
Gross Inland Consumption per Capita (toe/inhabitant)											
CEEC [2]	3.4	3.4	2.9	2.5	2.5	2.5	-0.1%	-3.0%	-7.2%	-1.3%	0.5%
Albania	1.3	0.9	0.8	0.6	0.5	0.5	-6.1%	-4.1%	-8.2%	-24.3%	-0.3%
Bulgaria	3.2	3.5	3.0	2.3	2.5	2.5	1.3%	-2.7%	-12.7%	7.6%	1.4%
Former Czechoslovakia [1]	4.9	4.8	4.6	3.8	3.6	3.6	0.0%	-1.1%	-8.4%	-5.3%	-0.2%
Czech Republic	-	-	-	4.2	3.9	3.8	-	-	-	-5.7%	-3.7%
Slovakia	-	-	-	3.3	3.1	3.3	-	-	-	-4.9%	4.6%
Hungary	2.7	2.9	2.8	2.5	2.5	2.4	1.4%	-0.7%	-5.5%	-1.0%	-1.3%
Poland	3.5	3.4	2.6	2.5	2.5	2.5	-0.5%	-5.5%	-1.4%	1.3%	-1.9%
Romania	2.9	2.9	2.7	2.0	1.9	1.9	-0.2%	-1.6%	-14.0%	-4.5%	1.7%
Former Yugoslavia	1.6	1.9	1.9	1.5	1.3	na	3.2%	0.4%	-12.1%	-10.0%	na
Energy Dependency (%)											
CEEC [2]	23.5	21.6	27.0	24.0	23.0	23.6	-1.6%	4.5%	-5.7%	-4.2%	2.5%
Albania	0.1	3.8	7.6	25.5	9.0	11.7	-	-	83.5%	-64.9%	30.7%
Bulgaria	73.5	69.3	62.5	55.4	57.6	57.5	-1.1%	-2.1%	-5.8%	4.1%	-0.3%
Former Czechoslovakia [1]	33.7	33.1	32.3	32.9	31.9	34.3	-0.4%	-0.5%	0.8%	-3.0%	7.5%
Czech Republic	-	-	-	15.9	15.7	18.6	-	-	-	-1.1%	18.7%
Slovakia	-	-	-	73.0	69.2	69.9	-	-	-	-5.1%	1.0%
Hungary	48.1	45.4	48.5	42.5	46.2	42.7	-1.2%	1.3%	-6.4%	8.7%	-7.7%
Poland	3.6	0.4	2.3	4.3	2.4	1.4	-36.4%	43.1%	38.1%	-43.6%	-42.6%
Romania	18.7	17.3	35.6	29.3	27.1	30.7	-1.6%	15.6%	-9.2%	-7.8%	13.4%
Former Yugoslavia	44.8	38.1	41.3	30.9	29.6	na	-3.2%	1.6%	-13.5%	-4.0%	na
Share of Total Gross Inland Consumption (%)											
Albania	1.0	0.7	0.7	0.8	0.6	na	-4.9%	0.1%	0.3%	-21.6%	na
Bulgaria	8.0	8.3	8.1	7.2	7.9	na	0.8%	-0.4%	-5.9%	9.7%	na
Former Czechoslovakia [1]	20.6	20.1	21.4	21.2	20.5	na	-0.5%	1.3%	-0.7%	-3.0%	na
Czech Republic	-	-	-	15.1	14.5	na	-	-	-	-3.5%	na
Slovakia	-	-	-	6.2	6.0	na	-	-	-	-2.3%	na
Hungary	8.1	8.2	8.7	9.0	9.1	na	0.4%	1.1%	1.9%	0.7%	na
Poland	34.8	34.2	29.6	33.9	35.2	na	-0.4%	-2.8%	7.0%	3.9%	na
Romania	18.1	17.4	18.1	15.8	15.5	na	-0.8%	0.9%	-6.7%	-2.0%	na
Former Yugoslavia	9.5	11.1	13.3	12.2	11.2	na	3.2%	3.6%	-4.2%	-7.8%	na
CO2 Emissions (Million tonnes of CO2)											
CEEC [2]	919.6	902.1	779.7	664.9	649.5	na	-0.4%	-2.9%	-7.7%	-2.3%	na
Albania	6.6	6.9	6.0	4.2	3.6	na	0.9%	-2.8%	-16.4%	-13.4%	na
Bulgaria	79.8	77.7	57.8	46.6	49.6	na	-0.5%	-5.7%	-10.2%	6.4%	na
Former Czechoslovakia [1]	237.6	221.4	200.2	160.7	152.6	na	-1.4%	-2.0%	-10.4%	-5.0%	na
Czech Republic	-	-	-	127.1	120.7	na	-	-	-	-5.1%	na
Slovakia	-	-	-	34.1	32.5	na	-	-	-	-4.8%	na
Hungary	72.6	71.6	58.7	51.9	52.4	na	-0.3%	-3.9%	-6.0%	0.9%	na
Poland	350.2	353.0	303.8	297.8	301.9	na	0.2%	-3.0%	-1.0%	1.4%	na
Romania	172.8	171.4	153.3	103.7	89.4	na	-0.2%	-2.2%	-17.7%	-13.8%	na
Former Yugoslavia	78.6	110.9	113.1	99.6	91.4	na	7.1%	0.4%	-6.1%	-8.3%	na
CO2 Emissions (t of CO2/inhabitant)											
CEEC [2]	9.7	9.3	7.9	6.7	6.6	na	-0.8%	-3.2%	-7.7%	-2.5%	na
Albania	2.5	2.3	1.8	1.2	1.1	na	-1.2%	-4.8%	-17.2%	-14.4%	na
Bulgaria	9.0	8.7	6.4	5.2	5.6	na	-0.6%	-5.7%	-9.7%	6.6%	na
Former Czechoslovakia [1]	15.6	14.3	12.9	10.3	9.8	na	-1.6%	-2.1%	-10.5%	-5.1%	na
Czech Republic	-	-	-	12.3	11.7	na	-	-	-	-5.0%	na
Slovakia	-	-	-	6.4	6.1	na	-	-	-	-5.1%	na
Hungary	6.8	6.8	5.7	5.1	5.1	na	0.0%	-3.5%	-5.5%	1.4%	na
Poland	9.9	9.5	8.0	7.8	7.9	na	-0.8%	-3.5%	-1.2%	1.0%	na
Romania	7.8	7.6	6.8	4.6	3.9	na	-0.4%	-2.4%	-17.9%	-14.0%	na
Former Yugoslavia	3.7	5.0	4.9	4.2	3.9	na	6.3%	-0.5%	-6.7%	-8.4%	na

[1] Czech Republic and Slovakia together after 1991 (limited differences may occur)
[2] Excluding Former Yugoslavia

CENTRAL AND EASTERN EUROPEAN COUNTRIES (Former Yugoslavia excluded) : Summary Energy balance

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	249.31	259.12	209.97	189.55	188.35	187.70	0.8%	-4.1%	-5.0%	-0.6%	-0.3%
Solids	182.61	187.02	151.08	139.12	137.26	136.49	0.5%	-4.2%	-4.0%	-1.3%	-0.6%
Oil	16.64	14.90	11.37	9.77	9.69	9.64	-2.2%	-5.3%	-7.3%	-0.8%	-0.5%
Natural gas	41.80	43.10	28.76	22.62	22.83	21.71	0.6%	-7.8%	-11.3%	0.9%	-4.9%
Nuclear	2.79	8.18	13.82	12.74	13.19	14.26	24.0%	11.0%	-4.0%	3.6%	8.1%
Hydro & Wind	2.49	2.34	2.03	2.14	2.28	2.43	-1.3%	-2.8%	2.7%	6.7%	6.4%
Geothermal	0.00	0.05	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	2.99	3.54	2.91	3.17	3.10	3.17	3.4%	-3.8%	4.4%	-2.2%	2.4%
Net Imports	76.55	71.82	78.10	59.93	56.68	57.79	-1.3%	1.7%	-12.4%	-5.4%	2.0%
Solids	8.21	7.69	9.46	8.28	11.90	12.02	-1.3%	4.2%	-6.4%	43.7%	1.0%
Oil	65.99	56.67	53.10	41.82	42.84	43.71	-3.0%	-1.3%	-11.3%	2.4%	2.0%
Crude oil	71.61	63.78	56.54	38.67	43.53	45.70	-2.3%	-2.4%	-17.3%	12.6%	5.0%
Oil products	-5.62	-7.11	-3.43	3.15	-0.69	-1.99	4.8%	-13.5%	-	-	189.4%
Natural gas	17.67	21.19	32.03	25.84	25.63	26.07	3.7%	8.6%	-10.2%	-0.8%	1.7%
Electricity	1.10	1.65	2.43	0.55	0.12	0.04	8.5%	8.1%	-52.2%	-78.5%	-70.6%
Gross Inland Consumption	324.87	331.08	288.74	249.06	246.02	252.87	0.4%	-2.7%	-7.1%	-1.2%	2.8%
Solids	174.98	181.38	143.50	130.57	128.07	124.47	0.7%	-4.6%	-4.6%	-1.9%	-2.8%
Oil	81.41	70.86	63.39	51.70	51.42	61.18	-2.7%	-2.2%	-9.7%	-0.5%	19%
Natural gas	59.11	63.10	60.61	48.20	47.84	47.32	1.3%	-0.8%	-10.8%	-0.8%	-1.1%
Other (1)	9.36	15.75	21.24	18.59	18.69	19.90	11.0%	6.2%	-6.5%	0.6%	6.5%
Electricity Generation in TWh	324.52	361.73	360.99	339.15	346.15	na	2.2%	0.0%	-3.1%	2.1%	na
Nuclear	10.69	31.39	53.02	48.87	50.61	na	24.0%	11.1%	-4.0%	3.6%	na
Hydro & wind	27.45	26.29	23.19	24.85	26.29	na	-0.9%	-2.5%	3.5%	5.8%	na
Thermal	286.37	304.05	284.78	265.43	269.25	na	1.2%	-1.3%	-3.5%	1.4%	na
Generation Capacity in GWe	70.71	86.07	94.56	92.44	93.50	na	4.0%	1.9%	-1.1%	1.1%	na
Nuclear	1.73	4.62	7.93	8.71	8.58	na	21.7%	11.4%	4.8%	-1.5%	na
Hydro & wind	9.87	12.96	14.25	13.91	14.38	na	5.6%	1.9%	-1.2%	3.4%	na
Thermal	59.11	68.49	72.38	69.82	70.53	na	3.0%	1.1%	-1.8%	1.0%	na
Average Load Factor in %	52.4	48.0	43.6	41.9	42.3	na	-1.7%	-1.9%	-2.0%	0.9%	na
Fuel Inputs for Thermal Power Generation	97.58	109.82	106.83	89.94	90.91	na	2.4%	-0.6%	-8.2%	1.1%	na
Solids	76.06	81.08	82.18	71.68	72.63	na	1.3%	0.3%	-6.6%	1.3%	na
Oil	11.89	12.75	10.86	6.81	7.72	na	1.4%	-3.2%	-20.8%	13.3%	na
Gas	9.63	15.94	13.79	11.45	10.56	na	10.6%	-2.9%	-8.9%	-7.8%	na
Geothermal	0.00	0.05	0.00	0.00	0.00	na	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Average Thermal Efficiency in %	25.2	23.8	22.9	25.4	25.5	na	-1.1%	-0.7%	5.2%	0.3%	na
Non-Energy Uses	8.67	6.69	8.94	9.15	9.63	na	-5.1%	6.0%	1.1%	5.3%	na
Total Final Energy Demand	232.42	220.42	189.60	158.96	152.31	na	-1.1%	-3.0%	-8.4%	-4.2%	na
Solids	69.35	65.33	40.83	41.19	37.94	na	-1.2%	-9.0%	0.4%	-7.9%	na
Oil	52.92	42.61	39.46	33.38	30.84	na	-4.2%	-1.6%	-8.0%	-7.6%	na
Gas	45.15	42.05	37.58	21.95	22.28	na	-1.4%	-2.2%	-23.6%	1.5%	na
Electricity	22.02	24.59	25.12	21.19	20.53	na	2.2%	0.4%	-8.1%	-3.1%	na
Heat	39.73	41.95	43.58	38.09	37.57	na	1.1%	0.8%	-6.5%	-1.4%	na
Other	3.25	3.69	3.04	3.17	3.15	na	2.6%	-3.8%	2.1%	-0.7%	na
CO2 Emissions in Mt of CO2	919.6	902.1	779.7	665.0	649.5	na	-0.4%	-2.9%	-7.7%	-2.3%	na
Indicators											
Population (Million)	95.27	97.56	98.96	99.06	99.14	99.10	0.5%	0.3%	0.0%	0.1%	0.0%
GDP (index 1985=100)	92.6	100.0	101.6	88.6	89.7	93.1	1.5%	0.3%	-6.6%	1.3%	3.8%
Gross Inl Cons./GDP (toe/1985 MECU)	1361.9	1285.9	1104.3	1091.9	1064.8	1054.4	-1.1%	-3.0%	-0.6%	-2.5%	-1.0%
Gross Inl Cons./Capita (toe/inhabitant)	3.4	3.4	2.9	2.5	2.5	2.6	-0.1%	-3.0%	-7.2%	-1.3%	2.8%
Electricity Generated/Capita (kWh/inhabitant)	3406	3708	3648	3424	3491	na	1.7%	-0.3%	-3.1%	2.0%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	9.7	9.2	7.9	6.7	6.6	na	-0.9%	-3.1%	-7.7%	-2.4%	na
Import Dependency %	23.5	21.6	27.0	24.0	23.0	21.4	-1.6%	4.5%	-5.7%	-4.2%	-6.8%

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

ALBANIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	3.43	2.88	2.26	1.61	1.44	1.45	-3.4%	-4.7%	-15.6%	-10.6%	0.8%
Solids	0.50	0.75	0.49	0.23	0.08	0.06	8.6%	-8.3%	-31.7%	-63.9%	-25.6%
Oil	1.98	1.18	1.06	0.58	0.54	0.55	-9.9%	-2.1%	-26.0%	-6.0%	0.9%
Natural gas	0.32	0.32	0.19	0.17	0.17	0.15	0.0%	-9.6%	-5.8%	0.0%	-14.5%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	0.25	0.25	0.25	0.28	0.29	0.34	0.1%	0.6%	6.3%	3.2%	17.1%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.38	0.38	0.28	0.36	0.36	0.36	0.0%	-5.6%	12.9%	0.0%	1.1%
Net Imports	0.01	-0.11	0.19	0.55	0.15	0.19	-	-	70.0%	-73.1%	31.3%
Solids	0.11	0.15	0.15	0.18	0.15	0.15	6.4%	0.0%	8.9%	-15.7%	0.0%
Oil	-0.06	-0.20	0.02	0.42	0.05	0.10	26.5%	-	345.1%	-88.9%	117.4%
Crude oil	0.00	0.00	0.00	0.56	0.25	0.26	-	-	-	-55.8%	4.8%
Oil products	-0.06	-0.20	0.02	0.15	-0.20	-0.16	26.5%	-	-	39.3%	-20.8%
Natural gas	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Electricity	-0.04	-0.05	0.02	0.05	-0.05	-0.06	4.7%	-	-	2.1%	16.3%
Gross Inland Consumption	3.43	2.77	2.49	2.14	1.64	1.65	-4.2%	-2.1%	-7.4%	-23.4%	0.4%
Solids	0.61	0.90	0.64	0.39	0.28	0.21	8.2%	-6.7%	-22.3%	-26.8%	-25.5%
Oil	1.92	0.98	1.12	1.00	0.59	0.65	-12.7%	2.8%	-5.7%	-40.7%	10.0%
Natural gas	0.32	0.32	0.19	0.17	0.17	0.15	0.0%	-9.6%	-5.8%	0.0%	-14.5%
Other (1)	0.59	0.57	0.54	0.59	0.60	0.64	-0.4%	-1.1%	3.9%	1.4%	7.6%
Electricity Generation in TWh	3.72	3.15	3.19	3.36	3.45	na	-3.3%	0.3%	2.6%	2.8%	na
Nuclear	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Hydro & wind	2.95	2.94	2.85	3.23	3.33	na	0.0%	-0.7%	6.4%	3.2%	na
Thermal	0.77	0.20	0.34	0.13	0.12	na	-23.3%	10.9%	-38.0%	-8.4%	na
Generation Capacity in GWe	1.21	1.86	1.89	1.89	1.89	na	9.0%	0.4%	0.0%	0.0%	na
Nuclear	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Hydro & wind	1.07	1.67	1.67	1.67	1.67	na	9.3%	0.0%	0.0%	0.0%	na
Thermal	0.14	0.19	0.22	0.22	0.22	na	6.3%	3.3%	0.0%	0.0%	na
Average Load Factor in %	35.1	19.3	19.2	20.3	20.8	na	-11.2%	-0.1%	2.6%	2.8%	na
Fuel Inputs for Thermal Power Generation	0.23	0.28	0.29	0.23	0.22	na	3.8%	0.8%	-10.4%	-6.9%	na
Solids	0.08	0.10	0.11	0.05	0.04	na	6.1%	0.6%	-30.3%	-31.4%	na
Oil	0.16	0.18	0.18	0.17	0.17	na	2.6%	-0.1%	-0.6%	0.0%	na
Gas	0.00	0.00	0.01	0.01	0.01	na	-	-	-5.7%	0.0%	na
Geothermal	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Average Thermal Efficiency in %	28.5	6.3	10.1	4.9	4.8	na	-26.1%	10.1%	-30.8%	-1.6%	na
Non-Energy Uses	0.67	0.11	0.20	0.19	0.18	na	-30.0%	12.1%	-2.5%	-6.8%	na
Total Final Energy Demand	2.43	2.31	2.10	1.68	1.54	na	-1.0%	-1.9%	-10.6%	-7.8%	na
Solids	0.53	0.89	0.68	0.46	0.37	na	11.1%	-5.2%	-18.2%	-19.7%	na
Oil	0.96	0.53	0.61	0.40	0.35	na	-11.0%	2.8%	-19.0%	-11.8%	na
Gas	0.32	0.32	0.19	0.16	0.16	na	0.0%	-10.5%	-5.8%	0.0%	na
Electricity	0.25	0.19	0.23	0.19	0.19	na	-5.4%	3.8%	-9.4%	3.2%	na
Heat	0.00	0.00	0.11	0.11	0.11	na	-	-	0.0%	0.0%	na
Other	0.38	0.38	0.28	0.36	0.36	na	0.0%	-5.6%	12.9%	0.0%	na
CO2 Emissions in Mt of CO2	6.6	6.9	6.0	4.2	3.6	na	0.9%	-2.8%	-16.4%	-13.4%	na
Indicators											
Population (Million)	2.67	2.96	3.29	3.35	3.39	3.41	2.1%	2.1%	0.9%	1.2%	0.7%
GDP (Index 1985=100)	90.4	100.0	102.1	68.2	74.8	81.8	2.0%	0.4%	-18.3%	9.6%	9.4%
Gross Inl Cons./GDP (toe/1985 MECU)	1475.3	1077.0	948.5	1217.3	851.4	781.6	-6.1%	-2.5%	13.3%	-30.1%	-8.2%
Gross Inl Cons./Capita (toe/inhabitant)	1.3	0.9	0.8	0.6	0.5	0.5	-6.1%	-4.1%	-8.2%	-24.3%	-0.3%
Electricity Generated/Capita (kWh/inhabitant)	1391	1062	970	1002	1018	na	-5.2%	-1.8%	1.7%	1.6%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	2.5	2.3	1.8	1.2	1.1	na	-1.2%	-4.8%	-17.2%	-14.4%	na
Import Dependency %	0.1	-3.8	7.6	25.5	9.0	11.7	-	-	83.5%	-64.9%	30.7%

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

BULGARIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	7.74	9.53	9.79	8.86	9.29	9.53	4.3%	0.5%	-4.9%	4.8%	2.6%
Solids	5.19	5.28	5.38	5.06	4.85	4.76	0.4%	0.4%	-3.1%	-4.1%	-1.8%
Oil	0.28	0.20	0.06	0.05	0.04	0.06	-6.1%	-21.5%	-5.9%	-18.5%	25.0%
Natural gas	0.15	0.02	0.01	0.03	0.05	0.04	-35.0%	-10.1%	64.3%	81.5%	-22.4%
Nuclear	1.61	3.42	3.82	3.01	3.64	3.96	16.3%	2.2%	-11.2%	21.0%	8.6%
Hydro & Wind	0.32	0.19	0.16	0.18	0.17	0.18	-9.7%	-3.3%	4.5%	-5.6%	7.8%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.20	0.41	0.35	0.54	0.54	0.54	16.1%	-3.0%	23.0%	0.2%	-0.4%
Net Imports	21.01	21.63	17.15	11.50	12.80	12.87	0.6%	-4.5%	-18.1%	11.2%	0.6%
Solids	4.26	5.18	3.37	2.25	2.63	2.24	4.0%	-8.3%	-18.2%	16.5%	-14.8%
Oil	13.38	11.50	8.57	5.36	6.77	7.24	-3.0%	-5.7%	-20.9%	26.1%	7.1%
Crude oil	13.23	12.62	8.31	2.25	5.82	7.38	-0.9%	-8.0%	-48.0%	159.3%	26.8%
Oil products	0.15	-1.12	0.26	3.12	0.94	-0.14	-	-	248.9%	-69.8%	-
Natural gas	3.03	4.58	4.89	3.65	3.40	3.37	8.6%	1.3%	-13.5%	-7.0%	-0.9%
Electricity	0.33	0.37	0.33	0.23	0.01	0.03	2.4%	-2.6%	-15.5%	-96.1%	200.0%
Gross Inland Consumption	28.67	30.97	27.13	20.48	21.95	22.13	1.6%	-2.6%	-13.1%	7.2%	0.8%
Solids	9.38	10.47	8.78	7.26	7.78	7.00	2.2%	-3.4%	-9.1%	7.1%	-10.0%
Oil	13.66	11.49	8.82	5.61	6.40	7.03	-3.4%	-5.1%	-20.3%	14.0%	9.9%
Natural gas	3.18	4.61	4.86	3.66	3.42	3.41	7.7%	1.0%	-13.2%	-6.5%	-0.5%
Other (1)	2.45	4.40	4.66	3.95	4.36	4.70	12.4%	1.2%	-8.0%	10.3%	7.9%
Electricity Generation in TWh	34.84	41.63	42.14	35.61	38.00	na	3.6%	0.2%	-8.1%	6.7%	na
Nuclear	6.17	13.13	14.67	11.55	13.97	na	16.3%	2.2%	-11.2%	21.0%	na
Hydro & wind	3.71	2.24	1.88	2.06	1.94	na	-9.6%	-3.4%	4.8%	-5.9%	na
Thermal	24.96	26.27	25.60	22.00	22.08	na	1.0%	-0.5%	-7.3%	0.4%	na
Generation Capacity in GWe	8.20	10.24	11.13	12.09	12.09	na	4.6%	1.7%	4.2%	0.0%	na
Nuclear	0.88	1.76	2.76	3.54	3.54	na	14.9%	9.4%	13.2%	0.0%	na
Hydro & wind	1.87	1.98	1.97	1.40	1.40	na	1.1%	0.0%	-15.7%	0.0%	na
Thermal	5.45	6.51	6.40	7.15	7.15	na	3.6%	-0.3%	5.7%	0.0%	na
Average Load Factor in %	48.5	46.4	43.2	33.6	35.9	na	-0.9%	-1.4%	-11.8%	6.7%	na
Fuel Inputs for Thermal Power Generation	9.51	9.85	7.84	7.95	8.43	na	0.7%	-4.4%	0.7%	6.0%	na
Solids	5.36	5.49	5.43	5.74	6.33	na	0.5%	-0.2%	2.9%	10.2%	na
Oil	4.15	3.43	0.68	0.76	0.70	na	-3.7%	-27.7%	5.9%	-7.8%	na
Gas	0.00	0.92	1.74	1.45	1.40	na	-	13.5%	-8.8%	-3.6%	na
Geothermal	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Average Thermal Efficiency in %	22.6	22.9	28.1	23.8	22.5	na	0.3%	4.1%	-7.9%	-5.3%	na
Non-Energy Uses	0.67	0.70	0.50	0.83	0.73	na	0.9%	-6.5%	28.4%	-12.2%	na
Total Final Energy Demand	19.24	18.37	17.47	11.34	11.48	na	-0.9%	-1.0%	-19.5%	1.3%	na
Solids	3.42	4.43	1.47	1.36	1.32	na	5.3%	-19.8%	-4.0%	-2.6%	na
Oil	7.99	5.39	5.78	2.85	3.19	na	-7.6%	1.4%	-29.8%	11.7%	na
Gas	3.18	3.69	2.29	1.23	1.43	na	3.0%	-9.1%	-26.7%	16.3%	na
Electricity	2.55	3.02	3.03	2.38	2.25	na	3.4%	0.1%	-11.4%	-5.3%	na
Heat	1.90	1.43	4.54	2.99	2.75	na	-5.5%	26.0%	-18.8%	-8.1%	na
Other	0.20	0.41	0.35	0.53	0.54	na	16.1%	-3.0%	21.9%	2.1%	na
CO2 Emissions in Mt of CO2	79.8	77.7	57.8	46.6	49.6	na	-0.5%	-5.7%	-10.2%	6.4%	na
Indicators											
Population (Million)	8.86	8.96	8.99	8.90	8.87	8.82	0.2%	0.1%	-0.5%	-0.4%	-0.6%
GDP (Index 1985=100)	80.9	100.0	107.9	87.7	83.7	84.0	4.3%	1.5%	-9.9%	-4.6%	0.4%
Gross Inl Cons./GDP (toe/1985 MECU)	1539.7	1345.9	1092.5	1015.2	1140.2	1145.4	-2.7%	-4.1%	-3.6%	12.3%	0.5%
Gross Inl Cons./Capita (toe/inhabitant)	3.2	3.5	3.0	2.3	2.5	2.5	1.3%	-2.7%	-12.7%	7.6%	1.4%
Electricity Generated/Capita (kWh/inhabitant)	3931	4646	4687	4000	4284	na	3.4%	0.2%	-7.6%	7.1%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	9.0	8.7	6.4	5.2	5.6	na	-0.8%	-5.8%	-9.8%	6.7%	na
Import Dependency %	73.3	69.3	62.5	55.4	57.6	57.5	-1.1%	-2.1%	-5.8%	4.1%	-0.3%

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

FORMER CZECHOSLOVAKIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	49.34	50.10	46.32	39.96	39.03	37.34	0.3%	-1.6%	-7.1%	-2.3%	-4.3%
Solids	46.73	45.66	38.50	32.91	32.20	29.77	-0.5%	-3.4%	-7.5%	-2.2%	-7.5%
Oil	0.10	0.13	0.12	0.15	0.13	0.14	5.6%	-0.5%	11.2%	-15.8%	9.4%
Natural gas	0.51	0.55	0.52	0.40	0.30	0.29	1.8%	-1.4%	-12.4%	-23.0%	-4.6%
Nuclear	1.18	3.07	6.42	6.09	5.95	6.58	21.1%	15.9%	-2.6%	-2.2%	10.5%
Hydro & Wind	0.41	0.37	0.34	0.36	0.39	0.44	-1.8%	-1.7%	2.2%	8.4%	13.4%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.41	0.32	0.42	0.06	0.06	0.12	-4.8%	5.3%	-62.3%	-1.7%	106.9%
Net Imports	24.99	24.79	23.08	19.73	18.13	19.48	-0.2%	-1.4%	-7.5%	-8.1%	7.4%
Solids	0.39	0.05	0.13	-0.72	-1.09	0.18	-	24.0%	-	51.7%	-83.5%
Oil	18.47	16.95	13.07	10.89	9.72	10.05	-1.7%	-5.1%	-8.7%	-10.7%	3.4%
Crude oil	18.83	16.81	13.33	10.76	10.20	10.12	-2.2%	-4.5%	-10.2%	-5.2%	-0.8%
Oil products	-0.37	0.14	-0.26	0.14	-0.48	-0.07	-	-	-	-	-85.3%
Natural gas	6.76	7.50	9.47	9.49	9.51	9.66	2.1%	4.8%	0.1%	0.1%	1.6%
Electricity	0.16	0.31	0.40	0.06	-0.01	0.05	13.9%	5.7%	-62.4%	-	525.0%
Gross Inland Consumption	74.08	74.84	71.38	60.00	56.85	56.82	0.2%	-0.9%	-8.3%	-5.3%	0.0%
Solids	46.11	45.64	40.27	32.63	30.92	29.59	-0.2%	-2.5%	-10.0%	-5.2%	-4.3%
Oil	18.54	17.06	13.40	11.07	10.22	10.19	-1.6%	-4.7%	-9.1%	-7.7%	-0.3%
Natural gas	7.28	8.07	10.14	9.74	9.31	9.95	2.1%	4.7%	-2.0%	-4.4%	6.9%
Other (1)	2.16	4.07	7.58	6.56	6.39	7.09	13.5%	13.2%	-7.0%	-2.6%	10.9%
Electricity Generation in TWh	72.73	80.63	86.63	81.65	82.60	na	2.1%	1.4%	-2.9%	1.2%	na
Nuclear	4.52	11.78	24.62	23.35	22.84	na	21.1%	15.9%	-2.6%	-2.2%	na
Hydro & wind	4.76	4.35	3.99	4.16	4.51	na	-1.8%	-1.7%	2.1%	8.5%	na
Thermal	63.45	64.50	58.02	54.14	55.25	na	0.3%	-2.1%	-3.4%	2.0%	na
Generation Capacity in GWe	15.64	19.55	21.56	20.78	21.34	na	4.6%	2.0%	-1.8%	2.7%	na
Nuclear	0.85	2.04	3.52	3.52	3.39	na	19.1%	11.5%	0.0%	-3.6%	na
Hydro & wind	2.14	2.88	3.04	3.06	3.35	na	6.1%	1.1%	0.3%	9.3%	na
Thermal	12.65	14.63	14.99	14.20	14.61	na	3.0%	0.5%	-2.7%	2.8%	na
Average Load Factor in %	53.1	47.1	45.9	44.8	44.2	na	-2.4%	-0.5%	-1.1%	-1.5%	na
Fuel Inputs for Thermal Power Generation	32.64	31.18	7.48	16.70	17.21	na	-0.9%	-2.5%	22.0%	3.1%	na
Solids	26.14	24.22	23.96	15.81	16.33	na	-1.5%	-0.2%	-18.8%	3.3%	na
Oil	4.41	4.12	1.92	0.48	0.47	na	-1.4%	-14.2%	-49.8%	-1.9%	na
Gas	2.09	2.84	1.60	0.40	0.41	na	6.3%	-10.9%	-49.7%	0.3%	na
Geothermal	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Average Thermal Efficiency in %	16.7	17.8	18.2	27.9	27.6	na	1.3%	0.4%	23.9%	-1.0%	na
Non-Energy Uses	2.48	1.42	0.71	1.45	1.29	na	-10.6%	-12.9%	42.9%	-11.0%	na
Total Final Energy Demand	46.31	46.27	46.90	40.96	37.97	na	0.0%	0.3%	-6.5%	-7.3%	na
Solids	17.20	14.82	11.98	13.37	11.06	na	-2.9%	-4.2%	5.7%	-17.3%	na
Oil	11.21	10.57	9.66	7.53	7.67	na	-1.2%	-1.8%	-11.7%	1.9%	na
Gas	4.59	5.34	6.32	6.85	6.42	na	3.1%	3.4%	4.1%	-6.3%	na
Electricity	4.86	5.53	6.24	5.33	5.17	na	2.6%	2.4%	-7.6%	-2.9%	na
Heat	8.05	9.67	12.30	7.82	7.60	na	3.7%	4.9%	-20.3%	-2.8%	na
Other	0.41	0.32	0.42	0.06	0.06	na	-4.8%	5.3%	-62.3%	-1.7%	na
CO2 Emissions in Mt of CO2	237.6	221.4	200.2	160.7	152.6	na	-1.4%	-2.0%	-10.4%	-5.0%	na
Indicators											
Population (Million)	15.26	15.45	15.56	15.60	15.61	15.63	0.2%	0.2%	0.1%	0.1%	0.1%
GDP (Index 1985=100)	93.8	100.0	107.9	86.6	85.1	87.9	1.3%	1.5%	-10.4%	-1.6%	3.3%
Gross Inl Cons./GDP (toe/1985 MECU)	1505.4	1426.0	1261.0	1320.7	1272.0	1231.0	-1.1%	-2.4%	2.3%	-3.7%	-3.2%
Gross Inl Cons./Capita (toe/inhabitant)	4.9	4.8	4.6	3.8	3.6	3.6	0.0%	-1.1%	-8.4%	-5.3%	-0.2%
Electricity Generated/Capita (kWh/inhabitant)	4766	5220	5567	5235	5292	na	1.8%	1.3%	-3.0%	1.1%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	15.6	14.3	12.9	10.3	9.8	na	-1.6%	-2.1%	-10.5%	-5.1%	na
Import Dependency %	33.7	33.1	32.3	32.9	31.9	34.3	-0.4%	-0.5%	0.8%	-3.0%	7.5%

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

SUMMARY ENERGY BALANCE	Czech Republic				Slovakia			
Mtoe	**1991**	**1992**	**1993**	**1994(2)**	**1991**	**1992**	**1993**	**1994(2)**
Primary Production	38.34	35.81	34.92	32.26	5.06	4.59	4.53	5.08
Solids	34.79	32.26	31.52	28.73	1.54	1.03	1.04	1.04
Oil	0.07	0.08	0.06	0.07	0.07	0.07	0.07	0.07
Natural gas	0.21	0.14	0.13	0.13	0.25	0.26	0.18	0.16
Nuclear	3.16	3.19	3.09	3.20	3.05	2.89	2.87	3.38
Hydro & Wind	0.11	0.14	0.13	0.13	0.15	0.22	0.26	0.31
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.12	0.12	0.12
Net Imports	6.13	6.79	6.33	7.23	13.80	12.76	11.56	12.25
Solids	-6.47	-5.54	-5.95	-4.45	4.92	4.64	4.61	4.27
Oil	7.31	7.71	6.81	6.94	3.71	3.19	2.91	3.11
Crude oil	6.26	6.57	5.99	6.11	4.89	4.19	4.21	4.01
Oil products	1.05	1.14	0.82	0.83	-1.18	-1.01	-1.30	-0.90
Natural gas	5.51	4.88	5.64	5.33	4.81	4.62	3.86	4.33
Electricity	-0.22	-0.26	-0.18	-0.59	0.37	0.32	0.17	0.54
Gross Inland Consumption	43.80	42.77	40.32	38.85	19.20	17.49	16.70	17.53
Solids	28.45	27.09	25.30	24.27	6.60	5.74	5.74	5.31
Oil	7.24	7.74	6.91	7.01	3.96	3.34	3.32	3.18
Natural gas	5.06	4.87	5.08	4.82	5.08	4.87	4.23	4.69
Other (1)	3.05	3.07	3.03	2.75	3.56	3.55	3.42	4.35
Electricity Generation in TWh	60.53	59.13	58.72	na	22.85	22.52	23.88	na
Nuclear	12.13	12.25	11.84	na	11.69	11.10	11.00	na
Hydro & wind	1.26	1.64	1.49	na	1.77	2.52	3.03	na
Thermal	47.14	45.24	45.39	na	9.39	8.90	9.86	na
Generation Capacity in GWe	1.76	14.49	14.23	na	1.76	6.30	7.11	na
Nuclear	1.76	1.76	1.76	na	1.76	1.76	1.63	na
Hydro & wind	na	1.40	1.40	na	na	1.66	1.94	na
Thermal	na	11.33	11.07	na	na	2.88	3.54	na
Average Load Factor in %	na	46.6	47.1	na	na	40.8	38.3	na
Fuel Inputs for Thermal Power Generation	15.51	15.03	15.59	na	1.85	1.77	1.74	na
Solids	15.12	14.69	15.28	na	1.24	1.23	1.18	na
Oil	0.31	0.26	0.23	na	0.28	0.22	0.24	na
Gas	0.08	0.08	0.08	na	0.33	0.32	0.32	na
Geothermal	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Other	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Average Thermal Efficiency in %	26.1	25.9	25.0	na	43.8	43.2	48.7	na
Non-Energy Uses	0.18	0.68	0.52	na	0.85	0.77	0.77	na
Total Final Energy Demand	29.05	27.42	25.06	na	15.01	13.64	12.99	na
Solids	10.88	10.10	7.75	na	4.25	3.32	3.32	na
Oil	6.17	5.81	5.90	na	2.02	1.72	1.77	na
Gas	3.57	3.33	3.55	na	3.71	3.53	2.87	na
Electricity	3.83	3.71	3.60	na	1.70	1.61	1.57	na
Heat	4.60	4.48	4.26	na	3.33	3.34	3.34	na
Other	0.00	0.00	0.00	na	0.00	0.12	0.12	na
CO2 Emissions in Mt of CO2	134.0	127.1	120.7	na	39.4	34.1	32.5	na
Indicators								
Population (Million)	10.30	10.30	10.30	10.30	5.28	5.29	5.31	5.33
GDP (Index 1985=100)	92.8	86.9	86.4	88.7	91.5	85.9	82.4	86.4
Gross Inl Cons./GDP (toe/1985 MECU)	1306.7	1362.9	1292.0	1213.0	1282.3	1244.9	1238.7	1240.3
Gross Inl Cons./Capita (toe/inhabitant)	4.3	4.2	3.9	3.8	3.6	3.3	3.1	3.3
Electricity Generated/Capita (kWh/inhabitant)	5874	5740	5703	na	4332	4253	4495	na
CO2 Emissions/Capita (t of CO2/inhabitant)	13.0	12.3	11.7	na	7.5	6.4	6.1	na
Import Dependency %	14.0	15.9	15.7	18.6	71.9	73.0	69.2	69.9

(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Energy data estimated.
n.b. limited differences between the sum of Czech Republic and Slovakia compared to Former Czechoslovakia due to conversion factors for solids

HUNGARY : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	14.95	17.09	14.62	14.11	13.85	14.50	2.7%	-3.1%	-1.8%	-1.9%	4.7%
Solids	6.97	6.36	4.68	4.17	3.82	4.08	-1.8%	-6.0%	-5.5%	-8.5%	6.9%
Oil	2.77	2.79	2.26	2.12	2.00	1.91	0.1%	-4.1%	-3.2%	-5.4%	-4.6%
Natural gas	4.58	5.83	3.81	3.61	3.89	4.24	5.0%	-8.2%	-2.6%	7.6%	9.0%
Nuclear	0.00	1.69	3.58	3.64	3.60	3.73	-	16.2%	0.9%	-1.2%	3.6%
Hydro & Wind	0.02	0.02	0.02	0.01	0.03	0.03	-7.4%	0.0%	-6.9%	146.2%	3.1%
Geothermal	0.00	0.05	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.61	0.35	0.28	0.56	0.51	0.51	-10.4%	-4.2%	40.3%	-8.6%	0.2%
Net Imports	13.91	13.86	13.99	10.86	11.65	10.56	-0.1%	0.2%	-11.8%	7.0%	-9.3%
Solids	2.00	2.65	1.50	1.00	0.96	0.67	5.8%	-10.7%	-18.6%	-4.0%	-29.8%
Oil	8.37	7.05	6.36	5.48	5.71	5.35	-3.4%	-2.1%	-7.2%	4.3%	-6.4%
Crude oil	7.41	6.39	6.19	5.50	5.81	5.36	-2.9%	-0.6%	-5.7%	5.7%	-7.7%
Oil products	0.97	0.66	0.17	-0.02	-0.10	-0.02	-7.2%	-23.9%	-	361.9%	-81.4%
Natural gas	2.91	3.23	5.17	4.11	4.77	4.31	2.1%	9.9%	-10.8%	15.9%	-9.7%
Electricity	0.64	0.93	0.96	0.30	0.21	0.24	7.9%	0.6%	-44.2%	-28.5%	13.6%
Gross Inland Consumption	28.93	30.59	28.93	25.61	25.21	24.76	1.1%	-1.1%	-5.9%	-1.6%	-1.8%
Solids	9.19	8.65	6.75	5.43	5.16	4.75	-1.2%	-4.8%	-10.3%	-5.0%	-7.8%
Oil	11.30	10.08	8.38	7.90	7.35	7.26	-2.3%	-3.6%	-2.9%	-7.1%	-1.2%
Natural gas	7.17	8.82	8.91	7.77	8.36	8.25	4.2%	0.2%	-6.6%	7.6%	-1.4%
Other (1)	1.27	3.04	4.89	4.51	4.35	4.51	19.1%	10.0%	-4.0%	-3.5%	3.7%
Electricity Generation in TWh	23.88	26.80	28.41	31.61	32.78	na	2.3%	1.2%	5.5%	3.7%	na
Nuclear	0.00	6.48	13.73	13.97	13.80	na	-	16.2%	0.9%	-1.2%	na
Hydro & wind	0.11	0.16	0.18	0.16	0.17	na	6.7%	2.8%	-6.1%	5.7%	na
Thermal	23.76	20.16	14.50	17.49	18.82	na	-3.2%	-6.4%	9.8%	7.6%	na
Generation Capacity in GWe	4.84	5.81	6.60	6.74	6.73	na	3.7%	2.6%	1.0%	-0.2%	na
Nuclear	0.00	0.82	1.65	1.65	1.65	na	-	15.1%	0.0%	0.0%	na
Hydro & wind	0.05	0.05	0.05	0.05	0.05	na	0.0%	0.9%	0.0%	0.0%	na
Thermal	4.80	4.94	4.90	5.04	5.03	na	0.6%	-0.2%	1.4%	-0.3%	na
Average Load Factor in %	56.3	52.7	49.1	53.5	55.6	na	-1.3%	-1.4%	4.4%	3.9%	na
Fuel Inputs for Thermal Power Generation	7.10	6.71	5.45	5.72	6.30	na	-1.1%	-4.1%	2.4%	10.3%	na
Solids	3.54	3.02	3.01	2.78	3.02	na	-3.1%	0.0%	-3.9%	8.7%	na
Oil	1.18	1.58	0.64	1.37	1.83	na	6.1%	-16.5%	46.2%	33.8%	na
Gas	2.38	2.06	1.80	1.57	1.45	na	-2.9%	-2.7%	-6.6%	-7.5%	na
Geothermal	0.00	0.05	0.00	0.00	0.00	na	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Average Thermal Efficiency in %	28.8	25.8	22.9	26.3	25.6	na	-2.1%	-2.4%	7.2%	-2.7%	na
Non-Energy Uses	1.52	1.48	2.19	1.21	1.28	na	-0.5%	8.1%	-25.7%	6.0%	na
Total Final Energy Demand	21.63	22.17	19.49	16.59	16.16	na	0.5%	-2.5%	-7.7%	-2.6%	na
Solids	4.56	4.96	2.96	2.07	1.91	na	1.7%	-9.8%	-16.3%	-8.1%	na
Oil	7.97	6.86	6.06	5.06	4.28	na	-3.0%	-2.5%	-8.6%	-15.6%	na
Gas	2.34	3.32	3.83	3.53	4.18	na	7.3%	2.9%	-4.0%	18.4%	na
Electricity	2.15	2.58	2.67	2.46	2.36	na	3.7%	0.7%	-4.2%	-3.9%	na
Heat	3.98	4.09	3.64	2.91	2.90	na	0.5%	-2.3%	-10.6%	-0.4%	na
Other	0.63	0.36	0.34	0.56	0.55	na	-10.8%	-1.0%	28.2%	-2.2%	na
CO2 Emissions in Mt of CO2	72.6	71.6	58.7	51.9	52.4	na	-0.3%	-3.9%	-6.0%	0.9%	na
Indicators											
Population (Million)	10.71	10.58	10.37	10.26	10.21	10.16	-0.2%	-0.4%	-0.5%	-0.5%	-0.5%
GDP (Index 1985=100)	90.1	100.0	104.1	93.8	93.0	94.9	2.1%	0.8%	-5.1%	-0.8%	2.1%
Gross Inl Cons./GDP (toe/1985 MECU)	1187.8	1132.3	1028.4	1010.8	1003.4	965.8	-1.0%	-1.9%	-0.9%	-0.7%	-3.8%
Gross Inl Cons./Capita (toe/inhabitant)	2.7	2.9	2.8	2.5	2.5	2.4	1.4%	-0.7%	-5.5%	-1.0%	-1.3%
Electricity Generated/Capita (kWh/inhabitant)	2230	2533	2741	3080	3211	na	2.6%	1.6%	6.0%	4.3%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	6.8	6.8	5.7	5.1	5.1	na	0.0%	-3.5%	-5.5%	1.4%	na
Import Dependency %	48.1	45.4	48.5	42.5	46.2	42.7	-1.2%	1.3%	-6.4%	8.7%	-7.7%

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

POLAND : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	121.16	125.07	97.91	93.01	93.69	94.72	0.6%	-4.8%	-2.5%	0.7%	1.1%
Solids	115.12	118.68	94.46	89.23	89.18	90.43	0.6%	-4.5%	-2.8%	-0.1%	1.4%
Oil	0.34	0.20	0.18	0.22	0.26	0.25	-10.2%	-2.2%	11.1%	18.1%	-1.2%
Natural gas	4.98	5.04	2.35	2.56	3.27	3.07	0.2%	-14.1%	4.3%	27.8%	-6.2%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	0.28	0.34	0.29	0.31	0.31	0.31	3.5%	-3.2%	3.8%	0.0%	1.6%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.44	0.82	0.63	0.71	0.68	0.66	13.0%	-5.0%	5.5%	-3.1%	-3.2%
Net Imports	4.54	0.48	2.23	4.15	2.37	1.34	36.2%	36.0%	36.3%	-42.8%	-43.7%
Solids	-18.23	-20.55	-18.91	-14.79	-16.51	-17.27	2.4%	-1.7%	-11.6%	11.6%	4.6%
Oil	18.92	16.85	14.53	13.95	14.42	13.35	-2.3%	-2.9%	-2.0%	3.3%	-7.4%
Crude oil	16.64	13.76	13.12	13.23	14.09	12.73	-3.7%	-0.9%	0.4%	6.5%	-9.6%
Oil products	2.28	3.09	1.40	0.72	0.33	0.62	6.3%	-14.6%	-28.3%	-54.2%	87.3%
Natural gas	3.87	4.37	6.71	5.33	4.67	5.35	2.4%	9.0%	-10.8%	-12.4%	14.4%
Electricity	-0.02	0.18	-0.09	-0.35	-0.21	-0.09	55.5%	-13.3%	97.5%	-40.3%	-55.1%
Gross Inland Consumption	124.95	127.27	98.51	96.10	97.55	95.76	0.4%	-5.0%	-1.2%	1.5%	-1.8%
Solids	97.55	100.59	75.37	73.83	74.59	73.16	0.6%	-5.6%	-1.0%	1.0%	-1.9%
Oil	17.90	16.35	13.45	13.84	14.02	13.45	-1.8%	-3.8%	1.4%	1.3%	-4.1%
Natural gas	8.79	9.36	8.85	7.77	8.16	8.26	1.3%	-1.1%	-6.3%	5.0%	1.3%
Other (1)	0.71	0.97	0.83	0.67	0.78	0.88	6.6%	-3.1%	-10.4%	17.7%	12.4%
Electricity Generation in TWh	121.87	137.71	136.31	132.75	133.84	na	2.5%	-0.2%	-1.3%	0.8%	na
Nuclear	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Hydro & wind	3.28	3.89	3.31	3.57	3.57	na	3.5%	-3.2%	3.8%	0.0%	na
Thermal	118.59	133.81	133.00	129.18	130.27	na	2.4%	-0.1%	-1.4%	0.8%	na
Generation Capacity in GWe	24.72	29.04	30.91	28.66	29.19	na	3.3%	1.3%	-3.7%	1.8%	na
Nuclear	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Hydro & wind	1.30	1.98	1.85	2.04	2.04	na	8.8%	-1.3%	5.0%	0.1%	na
Thermal	23.43	27.06	29.06	26.62	27.14	na	2.9%	1.4%	-4.3%	2.0%	na
Average Load Factor in %	56.3	54.1	50.3	52.9	52.3	na	-0.8%	-1.4%	2.5%	-1.0%	na
Fuel Inputs for Thermal Power Generation	36.80	41.91	43.82	41.49	41.43	na	2.6%	0.9%	-2.7%	-0.2%	na
Solids	36.26	41.23	42.57	40.37	40.24	na	2.6%	0.6%	-2.6%	-0.3%	na
Oil	0.50	0.66	1.22	1.08	1.13	na	5.7%	13.0%	-5.7%	4.5%	na
Gas	0.04	0.03	0.03	0.05	0.05	na	-5.8%	-1.4%	29.1%	20.0%	na
Geothermal	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Average Thermal Efficiency in %	27.7	27.5	26.1	26.8	27.0	na	-0.2%	-1.0%	1.3%	1.0%	na
Non-Energy Uses	1.90	1.77	4.22	3.44	3.32	na	-1.5%	19.1%	-9.8%	-3.5%	na
Total Final Energy Demand	84.65	81.90	61.96	60.63	61.31	na	-0.7%	-5.4%	-1.1%	1.1%	na
Solids	36.74	33.19	20.98	22.12	22.79	na	-2.0%	-8.8%	2.7%	3.0%	na
Oil	11.35	10.53	9.33	9.59	9.95	na	-1.5%	-2.4%	1.4%	3.8%	na
Gas	7.47	7.55	5.92	5.41	4.89	na	0.2%	-4.8%	-4.4%	-9.6%	na
Electricity	7.56	8.16	8.28	7.36	7.42	na	1.5%	0.3%	-5.7%	0.8%	na
Heat	21.08	21.65	16.83	15.45	15.58	na	0.5%	-4.9%	-4.2%	0.9%	na
Other	0.44	0.82	0.63	0.71	0.68	na	13.0%	-5.0%	5.5%	-3.1%	na
CO2 Emissions in Mt of CO2	350.2	353.0	303.8	297.8	301.9	na	0.2%	-3.0%	-1.0%	1.4%	na
Indicators											
Population (Million)	35.57	37.20	38.12	38.23	38.30	38.34	0.9%	0.5%	0.1%	0.2%	0.1%
GDP (index 1985=100)	100.2	100.0	103.3	103.9	107.4	113.3	0.0%	0.7%	0.3%	3.4%	5.5%
Gross Inl Cons./GDP (toe/1985 MECU)	1380.6	1368.6	1025.2	995.0	976.9	909.0	0.4%	-5.6%	-1.5%	-1.8%	-7.0%
Gross Inl Cons./Capita (toe/inhabitant)	3.5	3.4	2.6	2.5	2.5	2.5	-0.5%	-5.5%	-1.4%	1.3%	-1.9%
Electricity Generated/Capita (kWh/inhabitant)	3426	3702	3576	3473	3494	na	1.6%	-0.7%	-1.5%	0.6%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	9.8	9.5	8.0	7.8	7.9	na	-0.7%	-3.4%	-1.1%	1.2%	na
Import Dependency %	3.6	0.4	2.3	4.3	2.4	1.4	-36.4%	43.1%	38.1%	-43.6%	-42.6%

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

ROMANIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	52.71	54.65	39.07	31.99	31.05	30.16	0.7%	-6.4%	-9.5%	-3.0%	-2.8%
Solids	8.10	10.29	7.57	7.53	7.13	7.39	4.9%	-6.0%	-0.3%	-5.2%	3.6%
Oil	11.18	10.41	7.70	6.65	6.71	6.73	-1.4%	-5.8%	-7.1%	1.0%	0.3%
Natural gas	31.27	31.34	21.88	15.85	15.14	13.93	0.0%	-6.9%	-14.9%	-4.5%	-8.0%
Nuclear	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Hydro & Wind	1.21	1.17	0.98	1.01	1.10	1.13	-0.6%	-3.4%	1.4%	9.4%	2.4%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.96	1.26	0.94	0.95	0.96	0.99	5.6%	-5.6%	0.6%	0.1%	3.2%
Net Imports	12.10	11.16	21.47	13.13	11.59	13.35	-1.6%	14.0%	-21.8%	-11.8%	15.2%
Solids	4.04	4.84	4.30	3.80	1.97	2.37	3.7%	-2.3%	-6.0%	-48.2%	20.4%
Oil	6.92	4.52	10.57	5.72	6.18	7.62	-8.2%	18.5%	-26.4%	8.0%	23.4%
Crude oil	15.50	14.20	15.59	6.38	7.36	9.85	-1.7%	1.9%	-36.0%	15.4%	33.8%
Oil products	-8.58	-9.68	-5.02	-0.66	-1.19	-2.22	2.4%	-12.3%	-63.7%	78.7%	87.5%
Natural gas	1.10	1.52	5.79	3.25	3.28	3.39	6.6%	30.6%	-25.1%	1.0%	3.2%
Electricity	0.04	0.28	0.82	0.36	0.16	-0.03	49.9%	23.8%	-33.4%	-55.4%	-
Gross Inland Consumption	64.80	64.64	60.31	44.74	42.83	43.51	0.0%	-1.4%	-13.9%	-4.3%	1.6%
Solids	12.14	15.13	11.68	11.04	9.34	9.76	4.5%	-5.0%	-2.8%	-15.4%	4.4%
Oil	18.09	14.90	18.22	12.27	12.84	14.36	-3.8%	4.1%	-17.9%	4.6%	11.8%
Natural gas	32.37	31.91	27.67	19.10	18.43	17.31	-0.3%	-2.8%	-16.9%	-3.5%	-6.0%
Other (1)	2.20	2.70	2.74	2.32	2.22	2.08	4.2%	0.3%	-7.9%	-4.5%	-6.2%
Electricity Generation in TWh	67.49	71.82	64.31	54.17	55.48	na	1.3%	-2.2%	-8.2%	2.4%	na
Nuclear	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Hydro & wind	12.64	12.71	10.98	11.67	12.77	na	0.1%	-2.9%	3.1%	9.4%	na
Thermal	54.85	59.11	53.33	42.50	42.71	na	1.5%	-2.0%	-10.7%	0.5%	na
Generation Capacity in GWe	16.11	19.58	22.48	22.27	22.26	na	4.0%	2.8%	-0.5%	0.0%	na
Nuclear	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Hydro & wind	3.46	4.42	5.67	5.69	5.87	na	5.1%	5.1%	0.2%	3.2%	na
Thermal	12.65	15.16	16.81	16.58	16.39	na	3.7%	2.1%	-0.7%	-1.2%	na
Average Load Factor in %	47.8	41.9	32.7	27.8	28.4	na	-2.6%	-4.8%	-7.8%	2.4%	na
Fuel Inputs for Thermal Power Generation	11.30	19.89	21.95	17.85	17.32	na	12.0%	2.0%	-9.8%	-2.9%	na
Solids	4.69	7.03	7.10	6.92	6.67	na	8.4%	0.2%	-1.3%	-3.7%	na
Oil	1.50	2.78	6.23	2.95	3.41	na	13.1%	17.6%	-31.2%	15.7%	na
Gas	5.12	10.09	8.62	7.98	7.24	na	14.5%	-3.1%	-3.8%	-9.2%	na
Geothermal	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Other	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Average Thermal Efficiency in %	41.3	25.5	20.9	20.5	21.2	na	-9.2%	-3.9%	-0.9%	3.5%	na
Non-Energy Uses	1.42	1.21	1.12	2.03	2.84	na	-3.2%	-1.6%	35.0%	39.5%	na
Total Final Energy Demand	58.16	49.40	41.69	27.78	23.84	na	-3.2%	-3.3%	-18.4%	-14.2%	na
Solids	6.91	7.03	2.77	1.81	0.49	na	0.4%	-17.0%	-19.1%	-72.9%	na
Oil	13.45	8.93	8.03	7.95	5.41	na	-7.9%	-2.1%	-0.5%	-31.9%	na
Gas	27.25	21.82	19.05	4.77	5.21	na	-4.3%	-2.7%	-50.0%	9.2%	na
Electricity	4.65	5.11	4.67	3.48	3.14	na	1.9%	-1.8%	-13.6%	-9.9%	na
Heat	4.72	5.11	6.16	8.81	8.63	na	1.6%	3.8%	19.5%	-2.1%	na
Other	1.19	1.40	1.02	0.96	0.97	na	3.3%	-6.2%	-2.6%	0.3%	na
CO2 Emissions in Mt of CO2	172.8	171.4	153.3	103.7	89.4	na	-0.2%	-2.2%	-17.7%	-13.8%	na
Indicators											
Population (Million)	22.20	22.41	22.63	22.72	22.76	22.74	0.2%	0.2%	0.2%	0.2%	-0.1%
GDP (bil. ECU 1985)	65.6	100.0	89.6	65.4	67.7	69.3	3.2%	-2.2%	-14.6%	3.5%	2.4%
Gross Inl Cons./GDP (toe/1985 MECU)	1275.2	1088.4	1133.9	1152.0	1065.3	1056.9	-3.1%	0.8%	0.8%	7.5%	-0.8%
Gross Inl Cons./Capita (toe/inhabitant)	2.9	2.9	2.7	2.0	1.9	1.9	-0.2%	-1.6%	-14.0%	-4.5%	1.7%
Electricity Generated/Capita (kWh/inhabitant)	3040	3204	2842	2384	2437	na	1.1%	-2.4%	-8.4%	2.2%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	7.8	7.6	6.8	4.6	3.9	na	-0.4%	-2.4%	-17.9%	-14.0%	na
Import Dependency %	18.7	17.3	35.6	29.3	27.1	30.7	-1.6%	15.6%	-9.2%	-7.8%	13.4%

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

FORMER YUGOSLAVIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	18.82	25.92	25.45	24.08	22.11	na	6.6%	-0.4%	-2.7%	-8.2%	na
Solids	9.62	15.56	16.21	14.47	13.44	na	10.1%	0.8%	-5.5%	-7.2%	na
Oil	4.32	4.24	3.21	3.45	3.26	na	-0.4%	-5.4%	3.7%	-5.5%	na
Natural gas	1.74	2.01	2.17	2.19	2.21	na	2.9%	1.6%	0.4%	0.9%	na
Nuclear	0.00	1.06	1.20	1.04	1.03	na	-	2.7%	-7.3%	-0.4%	na
Hydro & Wind	2.42	2.09	1.70	1.97	1.81	na	-2.9%	-4.0%	7.6%	-8.0%	na
Geothermal	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	-
Other	0.72	0.98	0.94	0.96	0.35	na	6.3%	-0.6%	0.9%	-63.2%	na
Net Imports	15.29	15.81	18.25	10.68	9.24	na	0.7%	2.9%	-23.5%	-13.5%	na
Solids	2.33	3.19	2.36	1.36	0.57	na	6.5%	-5.8%	-24.2%	-57.9%	na
Oil	11.77	9.61	12.80	6.45	6.12	na	-4.0%	5.9%	-29.0%	-5.1%	na
Crude oil	11.17	8.84	12.25	5.72	6.41	na	-4.6%	6.7%	-31.7%	12.1%	na
Oil products	0.59	0.77	0.55	0.74	-0.29	na	5.4%	-6.5%	15.7%	-	na
Natural gas	1.23	2.95	3.12	2.80	2.44	na	19.2%	1.2%	-5.3%	-12.7%	na
Electricity	-0.04	0.05	-0.03	0.07	0.10	na	-	-	-	38.4%	na
Gross Inland Consumption	34.11	41.46	44.22	34.61	31.17	na	4.0%	1.3%	-11.5%	-9.9%	na
Solids	11.95	18.87	18.67	15.81	13.99	na	9.6%	-0.2%	-8.0%	-11.5%	na
Oil	16.09	13.46	16.43	9.73	9.31	na	-3.5%	4.1%	-23.1%	-4.3%	na
Natural gas	2.97	4.95	5.29	5.03	4.58	na	10.8%	1.3%	-2.5%	-9.1%	na
Other (1)	3.11	4.17	3.82	4.04	3.30	na	6.1%	-1.7%	2.8%	-18.3%	na
Electricity Generation in TWh	59.72	74.80	82.91	76.53	72.89	na	4.6%	2.1%	-3.9%	-4.8%	na
Nuclear	0.00	4.05	4.62	3.97	3.96	na	-	2.7%	-7.3%	-0.4%	na
Hydro & wind	28.16	24.27	19.80	22.91	21.08	na	-2.9%	-4.0%	7.6%	-8.0%	na
Thermal	31.56	46.48	58.48	49.66	47.85	na	8.1%	4.7%	-7.9%	-3.6%	na
Generation Capacity in GWe	14.03	19.74	21.52	20.88	21.17	na	7.1%	1.7%	-1.5%	1.4%	na
Nuclear	0.00	0.65	0.66	0.63	0.63	na	-	0.4%	-2.4%	0.0%	na
Hydro & wind	6.33	11.39	12.55	12.12	12.41	na	12.5%	2.0%	-1.7%	2.4%	na
Thermal	7.70	7.70	8.30	8.12	8.12	na	0.0%	1.5%	-1.1%	0.0%	na
Average Load Factor in %	48.6	43.3	44.0	41.9	39.3	na	-2.3%	0.3%	-2.5%	-6.1%	na
Fuel Inputs for Thermal Power Generation	8.89	15.40	18.13	12.92	12.43	na	11.6%	3.3%	-15.6%	-3.8%	na
Solids	7.21	12.49	13.56	10.65	10.37	na	11.6%	1.7%	-11.4%	-2.6%	na
Oil	1.34	2.18	3.65	1.40	1.30	na	10.1%	10.9%	-38.1%	-7.3%	na
Gas	0.34	0.74	0.92	0.87	0.76	na	16.8%	4.4%	-2.4%	-12.5%	na
Geothermal	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	na
Other	0.00	0.00	0.00	0.00	0.00	na	-	-	-	-	na
Average Thermal Efficiency in %	30.5	26.0	27.7	33.0	33.1	na	-3.2%	1.3%	9.1%	0.2%	na
Non-Energy Uses	2.32	1.74	2.46	1.16	0.55	na	-5.6%	7.1%	-31.3%	-52.2%	na
Total Final Energy Demand	18.67	22.74	21.60	23.23	20.65	na	4.0%	-1.0%	3.7%	-11.1%	na
Solids	2.62	3.83	2.94	5.57	3.97	na	7.9%	-5.2%	37.7%	-28.8%	na
Oil	9.56	8.19	8.28	6.55	6.29	na	-3.0%	0.2%	-11.0%	-3.9%	na
Gas	1.57	2.95	2.53	3.21	3.42	na	13.5%	-3.1%	12.8%	6.3%	na
Electricity	4.21	5.25	5.55	5.68	5.39	na	4.5%	1.1%	1.1%	-5.1%	na
Heat	0.00	1.54	1.36	1.26	1.23	na	-	-2.5%	-4.0%	-2.1%	na
Other	0.72	0.98	0.94	0.96	0.35	na	6.3%	0.6%	0.9%	-63.2%	na
CO2 Emissions in Mt of CO2	79.6	110.9	113.1	99.6	91.4	na	7.1%	0.4%	-6.1%	-8.3%	na
Indicators											
Population (Million)	21.44	22.22	23.21	23.50	23.52	na	0.7%	0.9%	0.6%	0.1%	na
GDP (Index 1985=100)	98.2	100.0	94.6	65.5	55.2	na	0.4%	-1.1%	-16.8%	-15.8%	na
Gross Inl Cons./GDP (toe/1985 MECU)	598.7	714.6	805.9	910.7	974.0	na	3.6%	2.4%	6.3%	6.9%	na
Gross Inl Cons./Capita (toe/inhabitant)	1.6	1.9	1.9	1.5	1.3	na	3.2%	0.4%	-12.1%	-10.0%	na
Electricity Generated/Capita (kWh/inhabitant)	2785	3366	3572	3257	3099	na	3.9%	1.2%	-4.5%	-4.9%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	3.7	5.0	4.9	4.2	3.9	na	6.3%	-0.5%	-6.7%	-8.4%	na
Import Dependency %	44.8	38.1	41.3	30.9	29.6	na	-3.2%	1.6%	-13.5%	-4.0%	na

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

SUMMARY ENERGY BALANCE	Slovenia				Bosnia Herzegovina				Croatia			
Mtoe	**1991**	**1992**	**1993**	**1994(2)**	**1991**	**1992**	**1993**	**1994**	**1991**	**1992**	**1993**	**1994**
Primary Production	2.71	2.68	2.40	2.52	na	3.60	3.17	na	5.12	4.62	4.01	na
Solids	1.10	1.18	1.09	1.03	na	3.19	2.76	na	0.09	0.07	0.06	na
Oil	0.00	0.09	0.01	0.01	na	0.00	0.00	na	2.44	2.17	2.08	na
Natural gas	0.01	0.01	0.01	0.01	na	0.00	0.00	na	1.50	1.49	1.50	na
Nuclear	1.29	1.04	1.03	1.17	na	0.00	0.00	na	0.00	0.00	0.00	na
Hydro & Wind	0.31	0.29	0.26	0.30	na	0.25	0.24	na	0.50	0.37	0.37	na
Geothermal	0.00	0.00	0.00	0.00	na	0.00	0.00	na	0.00	0.00	0.00	na
Other	0.00	0.07	0.00	0.00	na	0.16	0.16	na	0.59	0.51	0.00	na
Net Imports	1.28	1.96	2.49	2.69	na	1.98	1.63	na	2.27	2.71	2.41	na
Solids	0.01	0.07	0.16	0.32	na	0.00	0.00	na	0.30	0.39	0.29	na
Oil	0.51	1.51	1.92	1.98	na	1.63	1.31	na	0.89	1.35	1.33	na
Crude oil	0.51	0.51	0.57	0.59	na	1.63	1.31	na	2.30	2.14	3.20	na
Oil products	0.00	1.00	1.35	1.39	na	0.00	0.00	na	-1.41	-0.79	-1.88	na
Natural gas	0.58	0.54	0.54	0.59	na	0.34	0.32	na	0.65	0.73	0.58	na
Electricity	0.18	-0.16	-0.12	-0.20	na	0.00	0.00	na	0.42	0.24	0.21	na
Gross Inland Consumption	4.00	4.72	4.95	5.20	na	5.58	4.79	na	7.63	7.15	6.26	na
Solids	1.11	1.32	1.29	1.35	na	3.19	2.76	na	0.52	0.42	0.37	na
Oil	0.51	1.61	1.94	1.99	na	1.63	1.31	na	3.56	3.34	3.32	na
Natural gas	0.59	0.55	0.55	0.60	na	0.34	0.32	na	2.05	2.27	1.99	na
Other (1)	1.79	1.24	1.17	1.27	na	0.41	0.40	na	1.50	1.13	0.58	na
Electricity Generation in TWh	12.72	12.09	11.69	4.49	13.00	12.20	11.70	na	8.83	8.89	9.36	na
Nuclear	4.95	3.97	3.96	4.49	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Hydro & wind	3.61	3.41	3.02	0.00	3.00	2.90	2.80	na	5.77	4.34	4.35	na
Thermal	4.16	4.70	4.71	0.00	10.00	9.30	8.90	na	3.06	4.55	5.01	na
Generation Capacity in GWe	na	2.53	2.48	na	na	3.40	3.40	na	na	3.49	3.49	na
Nuclear	na	0.63	0.63	na	na	0.00	0.00	na	na	0.00	0.00	na
Hydro & wind	na	0.76	0.76	na	na	1.20	1.20	na	na	2.06	2.06	na
Thermal	na	1.14	1.09	na	na	2.20	2.20	na	na	1.43	1.43	na
Average Load Factor in %	na	54.5	53.8	na	na	41.0	39.3	na	na	29.1	30.6	na
Fuel Inputs for Thermal Power Generation	1.12	1.25	1.24	na	na	1.61	1.36	na	0.97	1.30	1.37	na
Solids	0.99	1.05	1.02	na	na	1.39	1.18	na	0.13	0.17	0.12	na
Oil	0.00	0.12	0.12	na	na	0.23	0.18	na	0.51	0.65	0.68	na
Gas	0.13	0.09	0.09	na	na	0.00	0.00	na	0.34	0.48	0.56	na
Geothermal	0.00	0.00	0.00	na	na	0.00	0.00	na	0.00	0.00	0.00	na
Other	0.00	0.00	0.00	na	na	0.00	0.00	na	0.00	0.00	0.00	na
Average Thermal Efficiency in %	32.1	32.5	32.7	na	na	49.8	56.1	na	27.1	30.2	31.6	na
Non-Energy Uses	0.01	0.02	0.01	na	na	0.12	0.10	na	0.71	0.80	0.23	na
Total Final Energy Demand	1.97	3.12	3.30	na	na	5.37	4.77	na	5.11	4.65	4.22	na
Solids	0.08	0.24	0.19	na	na	2.52	2.20	na	0.31	0.18	0.16	na
Oil	0.52	1.46	1.77	na	na	1.05	0.84	na	2.10	1.85	1.89	na
Gas	0.40	0.39	0.39	na	na	0.34	0.32	na	0.87	0.94	1.13	na
Electricity	0.78	0.75	0.75	na	na	1.05	1.01	na	0.98	0.81	0.80	na
Heat	0.19	0.20	0.20	na	na	0.24	0.24	na	0.27	0.26	0.23	na
Other	0.00	0.07	0.00	na	na	0.16	0.16	na	0.59	0.51	0.00	na
CO2 Emissions in Mt of CO2	7.1	11.1	11.8	na	na	20.1	17.2	na	13.9	13.7	14.3	na
Indicators												
Population (Million)	2.00	2.00	1.99	2.00	4.37	4.24	4.11	5.33	4.78	4.78	4.78	na
GDP (Index 1985=100)	na	na	na	na	na	na	na	na	na	na	na	na
Gross Inl Cons./GDP (toe/1985 MECU)	na	na	na	na	na	na	na	na	na	na	na	na
Gross Inl Cons./Capita (toe/inhabitant)	2.0	2.4	2.5	2.6	0.1	1.3	1.2	na	1.6	1.5	1.3	na
Electricity Generated/Capita (kWh/inhabitant)	6355	6055	5873	2252	2974	2877	2847	na	1847	1861	1958	na
CO2 Emissions/Capita (t of CO2/inhabitant)	3.6	5.6	5.9	na	na	4.7	4.2	na	2.9	2.9	3.0	na
Import Dependency %	32.1	41.6	50.4	51.6	na	35.5	33.9	na	29.7	37.9	38.4	na

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

SUMMARY ENERGY BALANCE	F. Yug. Rep. of Macedonia				Serbia - Montenegro			
Mtoe	**1991**	**1992**	**1993**	**1994**	**1991**	**1992**	**1993**	**1994**
Primary Production	1.56	1.56	1.63	na	11.89	11.63	10.90	na
Solids	1.48	1.48	1.55	na	8.96	8.55	7.98	na
Oil	0.00	0.00	0.00	na	1.12	1.19	1.17	na
Natural gas	0.00	0.00	0.00	na	0.61	0.69	0.70	na
Nuclear	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Hydro & Wind	0.07	0.07	0.08	na	0.98	0.98	0.86	na
Geothermal	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Other	0.00	0.00	0.00	na	0.22	0.22	0.19	na
Net Imports	1.54	1.45	1.48	na	4.93	2.52	1.18	na
Solids	0.12	0.12	0.03	na	0.73	0.73	0.04	na
Oil	1.15	1.10	1.21	na	2.34	0.86	0.36	na
Crude oil	1.02	1.02	1.12	na	2.04	0.41	0.20	na
Oil products	0.13	0.08	0.08	na	0.29	0.45	0.16	na
Natural gas	0.26	0.22	0.23	na	2.06	0.96	0.79	na
Electricity	0.01	0.02	0.02	na	0.20	-0.03	-0.01	na
Gross Inland Consumption	2.94	2.95	3.04	na	16.82	14.16	12.09	na
Solids	1.56	1.55	1.51	na	9.70	9.29	8.02	na
Oil	1.04	1.10	1.21	na	3.46	2.05	1.54	na
Natural gas	0.26	0.22	0.23	na	2.67	1.66	1.49	na
Other (1)	0.08	0.10	0.10	na	1.00	1.16	1.04	na
Electricity Generation in TWh	5.77	6.07	5.98	na	36.49	36.49	34.16	na
Nuclear	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Hydro & wind	0.85	0.85	0.90	na	11.41	11.41	10.01	na
Thermal	4.92	5.22	5.08	na	25.08	25.08	24.14	na
Generation Capacity in GWe	na	1.37	1.37	na	na	10.08	10.42	na
Nuclear	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Hydro & wind	na	0.45	0.45	na	na	3.65	3.66	na
Thermal	na	0.92	0.92	na	na	6.43	6.77	na
Average Load Factor in %	na	50.5	49.8	na	na	41.32	37.40	na
Fuel Inputs for Thermal Power Generation	1.45	1.45	1.46	na	7.44	7.35	7.02	na
Solids	1.35	1.35	1.36	na	6.74	6.74	6.70	na
Oil	0.10	0.10	0.09	na	0.40	0.31	0.21	na
Gas	0.00	0.00	0.00	na	0.31	0.31	0.11	na
Geothermal	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Other	0.00	0.00	0.00	na	0.00	0.00	0.00	na
Average Thermal Efficiency in %	29.3	31.0	30.0	na	29.0	29.4	29.6	na
Non-Energy Uses	0.03	0.03	0.05	na	0.22	0.19	0.18	na
Total Final Energy Demand	1.63	1.61	1.58	na	11.14	8.52	6.79	na
Solids	0.12	0.11	0.10	na	2.86	2.52	1.33	na
Oil	0.76	0.75	0.75	na	2.63	1.44	1.05	na
Gas	0.26	0.22	0.23	na	2.34	1.32	1.35	na
Electricity	0.41	0.45	0.43	na	2.63	2.55	2.40	na
Heat	0.09	0.08	0.08	na	0.48	0.48	0.48	na
Other	0.00	0.00	0.00	na	0.22	0.22	0.19	na
CO2 Emissions in Mt of CO2	9.1	8.9	8.9	na	53.7	45.9	39.1	na
Indicators								
Population (Million)	2.03	2.05	2.08	2.09	10.29	10.43	10.57	10.71
GDP (index 1985=100)	na	na	na	na	na	na	na	na
Gross Inl Cons./GDP (toe/1985 MECU)	na	na	na	na	na	na	na	na
Gross Inl Cons./Capita (toe/inhabitant)	1.4	1.4	1.5	na	1.6	1.4	1.1	na
Electricity Generated/Capita (kWh/inhabitant)	2843	2956	2882	na	3546	3498	3231	na
CO2 Emissions/Capita (t of CO2/inhabitant)	4.5	4.3	4.3	na	5.2	4.4	3.7	na
Import Dependency %	52.3	49.2	48.8	na	29.3	17.8	9.8	na

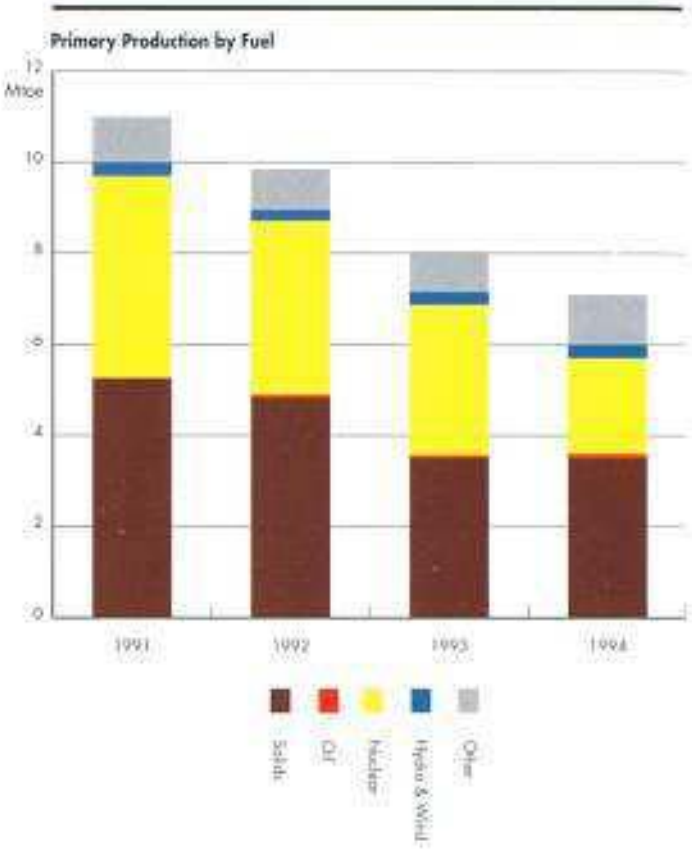
(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.

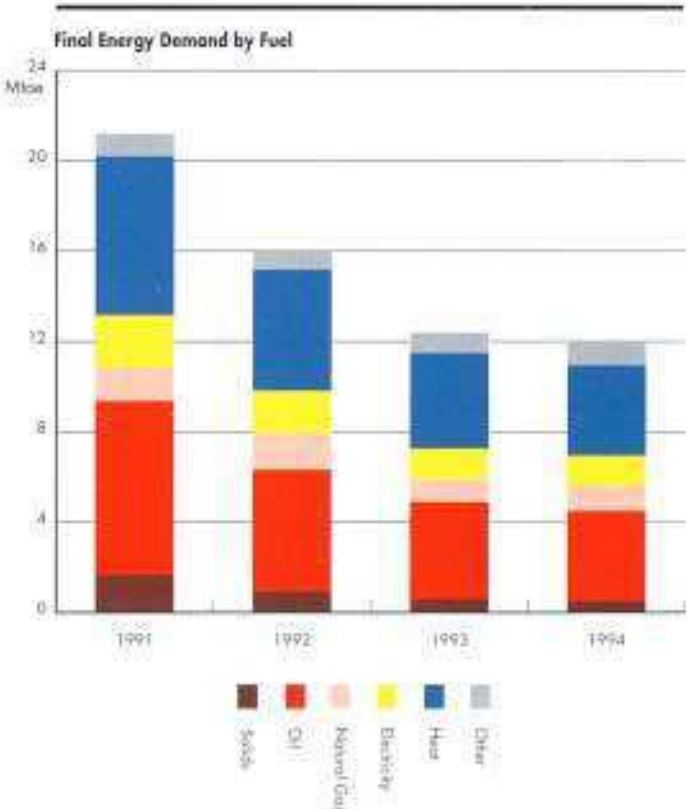
The Baltic Countries comprise of Estonia, Latvia and Lithuania, previously part of the former USSR. Any reliable economic and energy indicator seems almost impossible to gather for these countries. This situation prevailed before the independence, as generally observed elsewhere in the former USSR, due to some aggregation of figures for several Republics and to the non standardised method of computing the indicators. The situation remains however also very confused after the independence of the Baltic States, due to rapid changes in conjuncture and in administrative practices. The analysis is limited to the period 1991-1994.

However, all these mutations have induced a severe economic crisis in the Baltic countries and the GDP dropped between 1991 and 1994 by about 40% of its value. As a direct consequence, both the energy production and demand decreased strongly over the same period of time: the production from 11.0 Mtoe in 1991 down to 7.2 Mtoe in 1994, and the final demand from 21.2 to 12.0 Mtoe over the same period of time.

Total final energy demand consists mainly of oil (from 36.3% in 1991 to 33.3% in 1994) and heat (from 33% to 33.3% over the same period). The demand for coal, gas and electricity decreased in absolute terms over the period, as profoundly as the global demand, while at the same time the demand for biomass remained stable at about 1.0 Mtoe.

The Baltic countries are **producers** of coal, mainly shale oil, and nuclear energy, both productions having significantly dropped between 1991 and 1994 by 34% and 52% respectively. The Baltic Countries are **importers** of coal, but mainly of oil and of gas from the CIS. These imports dropped significantly by almost 54% over three years. At the same time, the gross energy consumption dropped by 50% and the **energy import dependency** that was 67% in 1991 fell to 60% in 1994.





The **electricity generation capacity** remained constant between 1991 and 1993 at about 11 GWe. Thermal power stations cover 58% of the capacity, the complement being covered in equal parts by nuclear energy and by hydro and wind energy. The load factor dropped dramatically from 50.6% to 27.1% over the period. Thermal power stations are mainly fed by solid fuels (55% in 1994 compared with 47% in 1991), oil (41% in 1994 compared with 21% in 1991) and gas (4% in 1994 compared with 32% in 1991) in the Baltic Countries.

In terms of **energy intensity**, these countries appear very inefficient compared to EU countries, with a ratio five times higher than that of the European Union. The **gross energy consumption per capita** dropped from 4.5 to 2.3 Kgoe/inhabitant, over the four year period under consideration.

As the final energy consumption dropped over the period, the **CO2 emissions** followed the same trend: from 85.2 Mt. CO2 in 1991 to 44.9 Mt. CO2 in 1994 (47% drop over three years). As the population of Baltic countries remained almost stable over the period, at a level of about 7.9 million inhabitants, the CO2 emissions per capita followed the same trend, and dropped from 10.8 to 5.7 over the period, compared with European average of 8.3 over the same

BALTIC COUNTRIES : MAIN INDICATORS

	1991	1992	1993	1994	92/91	93/92	94/93
					Annual % Change		
Energy Intensity (toe/1985MECU)							
BALTIC COUNTRIES	1482	1536	1441	1308	3.7%	-6.2%	-9.3%
Estonia	1993	1810	1660	1582	-9.2%	-9.4%	-3.5%
Latvia	794	995	908	856	25.3%	-8.7%	-5.8%
Lithuania	1916	1942	1882	1587	1.4%	-3.1%	-15.7%
Gross Inland Consumption per Capita (toe/inhabitant)							
BALTIC COUNTRIES	4.5	3.1	2.5	2.3	-31.3%	-18.6%	-6.7%
Estonia	6.1	4.4	3.7	3.8	-28.4%	-15.1%	3.0%
Latvia	2.9	2.4	1.8	1.8	-17.8%	-21.9%	-4.8%
Lithuania	4.9	3.0	2.4	2.1	-38.5%	-18.9%	-13.9%
Energy Dependency (%)							
BALTIC COUNTRIES	67.0	59.5	55.5	59.9	-11.3%	-6.6%	7.9%
Estonia	41.3	32.9	36.4	37.3	-20.3%	10.5%	2.4%
Latvia	83.8	85.5	75.9	76.1	2.1%	-11.3%	0.3%
Lithuania	73.5	61.2	56.8	67.5	-16.7%	-7.3%	18.9%
Share of Total Gross Inland Consumption (%)							
Estonia	27.0	28.1	29.2	32.2	4.1%	4.2%	10.2%
Latvia	21.5	25.6	24.5	24.9	19.2%	-4.4%	1.5%
Lithuania	51.5	46.3	46.3	42.9	-10.1%	-0.1%	-7.3%
CO2 Emissions (Million tonnes of CO2)							
BALTIC COUNTRIES	85.2	59.4	47.3	44.9	-30.3%	-20.3%	-5.1%
Estonia	31.7	23.2	18.5	18.1	-26.9%	-19.9%	-2.7%
Latvia	19.4	15.4	12.7	11.0	-20.6%	-17.2%	-13.8%
Lithuania	34.2	20.8	16.0	15.9	-39.0%	-23.0%	-1.1%
CO2 Emissions (t of CO2/inhabitant)							
BALTIC COUNTRIES	10.8	7.5	6.0	5.7	-30.0%	-20.2%	-4.6%
Estonia	20.2	14.9	12.0	11.7	-26.5%	-19.7%	-2.0%
Latvia	7.3	5.9	4.9	4.3	-19.9%	-16.8%	-12.9%
Lithuania	9.2	5.6	4.3	4.3	-39.0%	-23.1%	-1.0%

BALTIC COUNTRIES : SUMMARY ENERGY BALANCE

Mtoe	1991	1992	1993	1994	92/91	93/92	94/93
					Annual % Change		
Primary Production	11.0	9.9	8.1	7.2	-10.7%	-18.1%	-10.7%
Solids	5.3	4.8	3.5	3.5	-8.1%	-26.9%	0.5%
Oil	0.0	0.1	0.1	0.1	-	14.1%	27.4%
Natural gas	0.0	0.0	0.0	0.0	-	-	-
Nuclear	4.4	3.8	3.3	2.1	-13.9%	-14.1%	-36.5%
Hydro & Wind	0.3	0.2	0.3	0.3	-21.5%	15.4%	23.1%
Geothermal	0.0	0.0	0.0	0.0	-	-	-
Other	1.0	0.9	0.9	1.1	-13.4%	0.9%	23.2%
Net Imports	23.7	14.4	10.9	11.0	-39.2%	-24.3%	0.6%
Solids	1.8	1.2	0.8	0.8	-30.0%	-38.7%	3.6%
Oil	14.6	8.1	7.7	7.0	-44.7%	-4.5%	-9.1%
Crude oil	11.8	4.1	5.2	3.6	-65.3%	26.8%	-30.5%
Oil products	2.9	4.0	2.5	3.4	40.0%	-36.4%	34.7%
Natural gas	8.4	5.4	2.6	3.0	-35.2%	-53.0%	16.9%
Electricity	-1.1	-0.4	-0.2	0.2	-66.5%	-59.0%	-
Gross Inland Consumption	35.3	24.1	19.6	18.2	-31.6%	-18.7%	-7.2%
Solids	7.3	5.9	4.5	4.3	-20.2%	-23.2%	-4.1%
Oil	14.9	8.6	7.9	7.2	-42.2%	-8.3%	-8.6%
Natural gas	8.4	5.1	2.9	3.0	-39.6%	-42.9%	3.6%
Other (1)	4.6	4.6	4.3	3.7	-1.3%	-5.8%	-15.3%
Electricity Generation in TWh	49.6	34.4	27.2	23.6	-30.7%	-21.0%	-13.0%
Nuclear	17.0	14.6	12.3	7.7	-13.9%	-16.2%	-37.1%
Hydro & wind	3.6	2.8	3.3	4.0	-21.5%	15.4%	23.1%
Thermal	29.0	16.9	11.6	11.9	-41.7%	-31.2%	2.4%
Generation Capacity in GWe	11.2	11.1	11.4	na	-0.6%	2.9%	na
Nuclear	2.5	2.5	2.5	na	0.0%	0.0%	na
Hydro & wind	2.0	2.0	2.4	na	0.6%	19.5%	na
Thermal	6.7	6.6	6.6	na	-1.2%	-1.1%	na
Average Load Factor in %	50.6	35.3	27.1	na	-30.3%	-23.3%	na
Fuel Inputs for Thermal Power Generation	9.4	na	na	5.1	na	na	na
Solids	4.4	3.7	na	2.8	-15.7%	na	na
Oil	2.0	1.9	na	2.1	-7.0%	na	na
Gas	3.0	na	na	0.2	na	na	na
Geothermal	0.0	0.0	0.0	0.0	-	-	-
Other	0.0	0.0	0.0	0.1	-	-	-
Average Thermal Efficiency in %	26.5	na	na	20.1	na	na	na
Non-Energy Uses	2.2	0.4	0.2	0.3	-81.7%	-41.7%	8.5%
Total Final Energy Demand	21.2	16.0	12.4	12.0	-25.0%	-22.3%	-3.5%
Solids	1.6	0.9	0.6	0.5	-44.4%	-38.9%	-8.6%
Oil	7.7	5.3	4.3	4.0	-30.8%	-19.3%	-7.9%
Gas	1.5	1.6	1.0	1.1	4.2%	-38.1%	15.3%
Electricity	2.3	1.9	1.4	1.4	-17.7%	-28.4%	-0.7%
Heat	7.0	5.4	4.3	4.0	-23.8%	-19.6%	-7.1%
Other	1.0	0.9	0.9	1.0	-17.2%	2.9%	12.2%
CO2 Emissions in Mt of CO2	85.2	59.4	47.3	44.9	-30.3%	-20.3%	-5.1%
Indicators							
Population (Million)	7.9	7.9	7.9	7.8	-0.4%	-0.2%	-0.6%
GDP (index 1985=100)	101.9	67.2	58.2	59.5	34.0%	-13.4%	2.2%
Gross Inl Cons./GDP (toe/1985 MECU)	1481	1536	1441	1308	3.7%	-6.2%	-9.3%
Gross Inl Cons./Capita (toe/inhabitant)	4.5	3.1	2.5	2.3	-31.3%	-18.6%	-6.7%
Electricity Generated/Capita (kWh/inhabitant)	6263	4357	3449	3020	-30.4%	-20.9%	-12.5%
CO2 Emissions/Capita (t of CO2/inhabitant)	10.8	7.5	6.0	5.7	-30.0%	-20.2%	4.6%
Import Dependency %	67.0	59.5	55.5	59.9	-11.3%	-6.6%	7.9%

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

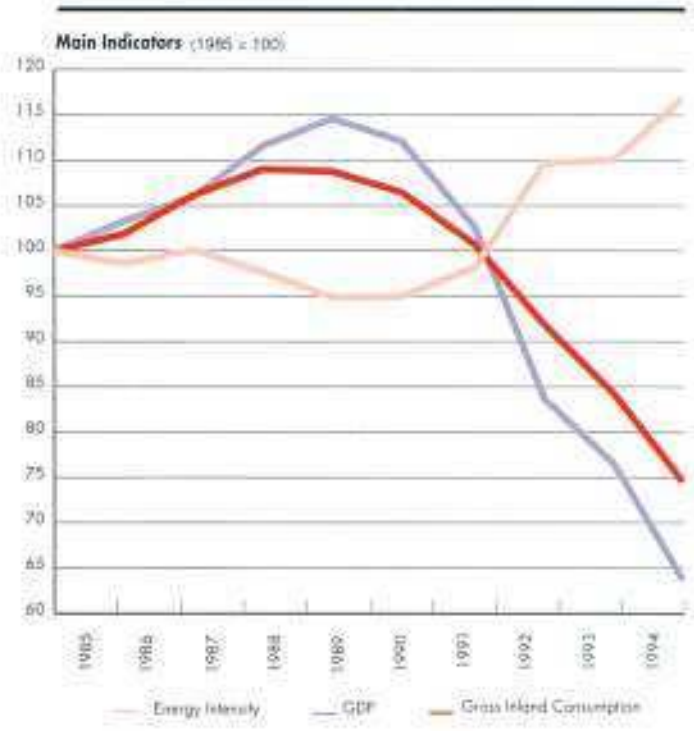
SUMMARY ENERGY BALANCE	ESTONIA				LATVIA				LITHUANIA			
Mtoe	**1991**	**1992**	**1993**	**1994**	**1991**	**1992**	**1993**	**1994**	**1991**	**1992**	**1993**	**1994**
Primary Production	5.0	4.6	3.6	3.7	1.2	1.1	0.8	1.0	4.8	4.1	3.6	2.5
Solids	4.8	4.4	3.5	3.4	0.4	0.4	0.1	0.1	0.0	0.0	0.0	0.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.4	3.8	3.0	2.1
Hydro & Wind	0.0	0.0	0.0	0.0	0.3	0.2	0.2	0.3	0.0	0.0	0.0	0.1
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.6	0.3	0.2	0.2	0.2
Net Imports	3.9	2.2	2.1	2.2	6.3	5.3	3.6	3.5	13.4	6.8	5.2	5.3
Solids	0.8	0.6	0.4	0.4	0.4	0.3	0.2	0.2	0.6	0.4	0.1	0.2
Oil	2.5	1.3	1.5	1.4	3.2	2.7	2.5	2.5	9.0	4.0	3.7	3.2
Crude oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.8	4.1	5.2	3.6
Oil products	2.5	1.3	1.5	1.4	3.2	2.7	2.5	2.5	-2.8	-0.1	-1.5	-0.4
Natural gas	1.1	0.6	0.3	0.5	2.4	1.9	0.7	0.7	4.8	2.9	1.6	1.8
Electricity	-0.4	-0.3	-0.1	-0.1	0.4	0.4	0.2	0.2	-1.1	0.5	-0.2	0.1
Gross Inland Consumption	9.5	6.8	5.7	5.9	7.6	6.2	4.8	4.5	18.2	11.2	9.1	7.8
Solids	5.9	4.9	3.8	3.8	0.8	0.7	0.3	0.3	0.7	0.3	0.3	0.2
Oil	2.7	1.3	1.5	1.4	3.2	2.8	2.5	2.5	9.0	4.4	3.9	3.3
Natural gas	1.1	0.6	0.3	0.5	2.4	1.6	1.0	0.7	4.8	2.9	1.6	1.8
Other (1)	-0.2	-0.1	0.0	0.2	1.2	1.1	1.0	1.0	3.7	3.6	3.3	2.5
Electricity Generation in TWh	14.6	11.8	9.1	9.2	5.6	3.8	3.9	4.4	29.4	18.7	14.1	10.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.0	14.6	12.3	7.7
Hydro & wind	0.0	0.0	0.0	0.0	3.3	2.5	2.9	3.3	0.3	0.3	0.4	0.7
Thermal	14.6	11.8	9.1	9.2	2.4	1.3	1.0	1.1	12.0	3.8	1.5	1.6
Generation Capacity in GWe	3.4	3.4	3.3	na	2.1	2.0	2.4	na	5.7	5.7	5.7	na
Nuclear	0.0	0.0	0.0	na	0.0	0.0	0.0	na	2.5	2.5	2.5	na
Hydro & wind	0.0	0.0	0.0	na	1.5	1.5	1.9	na	0.5	0.5	0.5	na
Thermal	3.4	3.4	3.3	na	0.6	0.5	0.5	na	2.7	2.7	2.7	na
Average Load Factor in %	48.9	39.7	31.2	na	30.8	21.5	18.5	na	58.9	37.5	28.3	na
Fuel Inputs for Thermal Power Generation	5.1	3.9	3.1	2.7	1.1	na	na	0.8	3.2	na	na	na
Solids	4.3	3.6	2.7	2.7	0.0	0.0	na	0.1	0.0	0.0	0.0	0.0
Oil	0.5	0.2	0.2	0.0	0.3	0.2	na	0.5	1.2	1.5	1.5	1.6
Gas	0.3	0.1	0.2	0.0	0.7	na	na	0.2	2.0	na	na	na
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Average Thermal Efficiency in %	24.8	25.8	25.5	29.1	18.7	na	na	12.4	31.9	na	na	na
Non-Energy Uses	0.3	0.2	0.1	0.2	0.0	0.0	0.0	0.0	1.9	0.2	0.1	0.0
Total Final Energy Demand	5.1	3.1	2.6	2.7	6.2	5.2	4.2	4.0	9.9	7.7	5.6	5.3
Solids	0.5	0.2	0.1	0.1	0.6	0.4	0.2	0.2	0.6	0.3	0.3	0.2
Oil	1.5	0.8	0.9	0.9	2.1	1.9	1.7	1.6	4.1	2.6	1.8	1.5
Gas	0.2	0.1	0.1	0.1	0.6	0.5	0.3	0.3	0.7	0.9	0.6	0.7
Electricity	0.6	0.5	0.4	0.4	0.7	0.6	0.4	0.4	1.0	0.8	0.6	0.5
Heat	2.1	1.3	1.0	1.0	1.7	1.2	1.2	1.0	3.2	2.8	2.1	2.1
Other	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.5	0.3	0.2	0.2	0.2
CO2 Emissions in Mt of CO2	31.7	23.2	18.5	18.1	19.4	15.4	12.7	11.0	34.2	20.8	16.0	15.9
Indicators												
Population (Million)	1.6	1.6	1.6	1.5	2.6	2.6	2.6	2.6	3.7	3.7	3.7	3.7
GDP (index 1985=100)	80.3	63.0	58.8	62.3	108.1	70.3	59.9	59.9	110.3	66.9	56.1	57.2
Gross Inl Cons./GDP (toe/1985 MECU)	2.0	1.8	1.6	1.6	0.8	1.0	0.9	0.9	1.9	1.9	1.9	1.6
Gross Inl Cons./Capita (toe/inhabitant)	6.1	4.4	3.7	3.8	2.9	2.4	1.8	1.8	4.9	3.0	2.4	2.1
Electricity Generated/Capita (kWh/inhabitant)	9341	7599	5875	5938	2125	1461	1503	1719	7917	5047	3804	2713
CO2 Emissions/Capita (t of CO2/inhabitant)	20.2	14.9	12.0	11.7	7.3	5.9	4.9	4.3	9.2	5.6	4.3	4.3
Import Dependency %	41.3	32.9	36.4	37.3	83.8	85.5	75.9	76.1	73.5	61.2	56.8	67.5

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

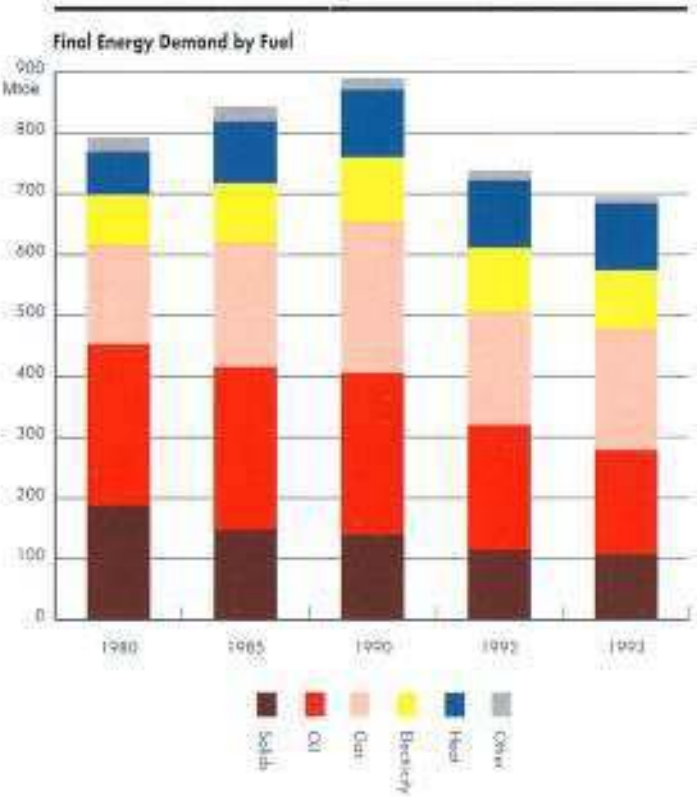
PART IV CIS

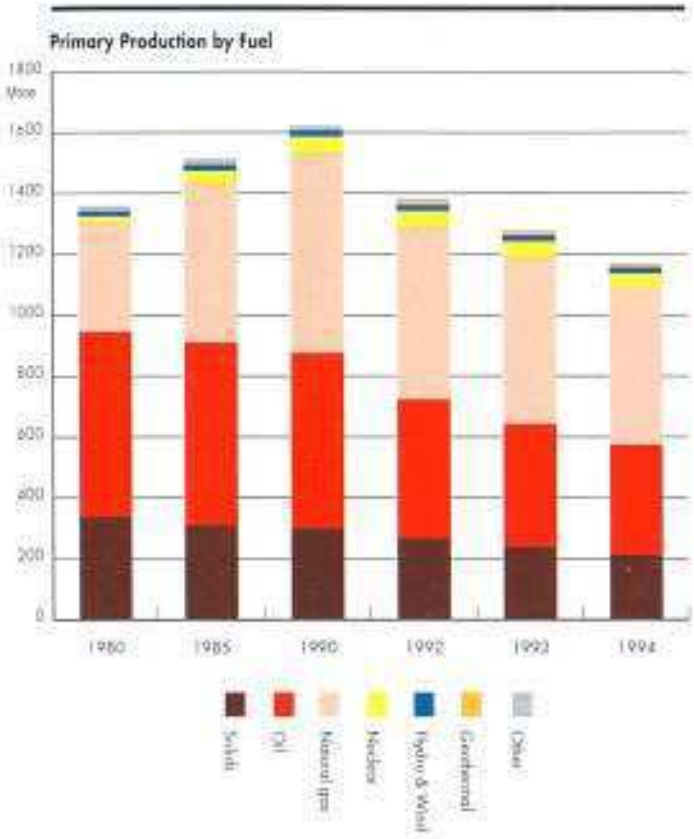
The Community of Independent States CIS includes the following twelve republics: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. In addition, as consolidated energy balances do not exist for Baltic countries, they are included in total energy balances presented. If available, the contribution of these countries has been identified explicitly. As the contribution of these countries was limited to only 2% of the total gross inland consumption of the former USSR, the impact of this aggregation remains limited.

Energy and macroeconomic data for all these republics are sometimes of doubtful quality, and we will comment on significant trends rather than on absolute values for drawing analytical conclusions. But in any case, with all the rapid changes in political, social and economic structures, it is clear that the present economic situation in CIS as a whole is very depressed with a total decline of GDP by about 43% between 1990 and 1994 without, until now, any sign of retrieval.



Final Energy demand peaked in 1989 at a level of 905 Mtoe, and since then pursued an accelerated decline down to 696 Mtoe in 1993, a fall of more than 23% over 4 years. All the sectors of the economy have been reached, while industry has been the most affected, due to the ongoing deep restructuration. The reduction of consumption was mainly concentrated on oil products (105 Mtoe or 50% of the downfall between 1989 and 1993), followed by solids (43 Mtoe or 21%), gas (38 Mtoe or 18%) and electricity (11 Mtoe or 5%). Only heat deliveries remained quite stable. These trends were in line with the internal energy policies which continued to export as large volume of oil as possible and to concentrate internal consumption on gas.



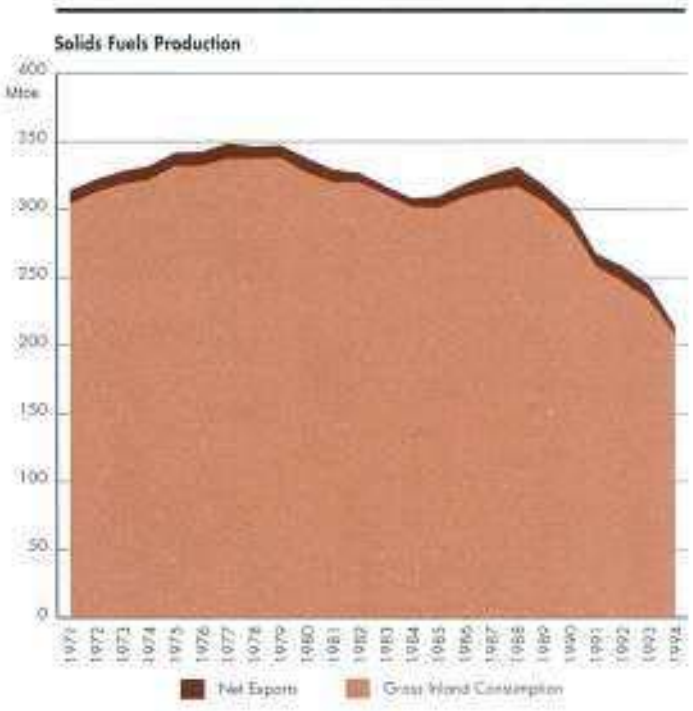


Gross inland energy consumption, after a peak of 1389 Mtoe in 1988, decreased to only 949.5 Mtoe in 1994 or a 32% total drop over 6 years. The movement has been accelerating for the last three years with a respective decline of 8.8% in 1992, 8.3% in 1993 and 11.5% in 1994. The reduction, however, was not the same for all primary fuels as illustrated at the level of final consumption. While solids and oil demand decreased systematically since 1980, and very fast after the reforms of 1990 (-7.8% on average per year for solid fuels and -14% for oil), natural gas consumption has steadily increased from 1980 until 1990 (6% per year on average) and since then dropped also by 6.4% per year on average. Other forms of energy consumption recovered, mainly nuclear energy with limited contribution of both hydro and renewable energy. Nuclear energy had a significant increase in consumption up to 1988, stagnated until 1993 but fell by 13.4% in 1994. The contribution of hydro is stable since 1985 at about 20 Mtoe although a large potential

FORMER URSS : TOTAL ENERGY

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Total Production	**1360.1**	**1514.9**	**1623.1**	**1383.4**	**1278.5**	**1170.8**	**2.2%**	**1.4%**	**-7.7%**	**-7.6%**	**-8.4%**
Armenia	1.3	1.5	0.1	0.3	0.4	0.0	3.5%	-37.6%	35.1%	39.7%	-100.0%
Azerbaijan	21.2	20.2	16.4	13.9	12.6	11.8	-0.9%	-4.1%	-7.9%	-9.7%	-6.5%
Belarus	0.5	0.4	0.4	0.4	0.4	0.2	-4.3%	2.1%	-0.9%	0.1%	-43.8%
Georgia	2.5	1.4	1.4	0.9	0.7	0.6	-11.0%	0.1%	-22.2%	-17.1%	-15.3%
Kazakhstan	73.2	84.2	87.7	86.0	75.7	68.6	2.8%	0.8%	-1.0%	-11.9%	-9.4%
Kyrgyzstan	2.0	2.1	2.2	1.6	1.4	1.4	0.9%	1.3%	-14.1%	-13.9%	1.6%
Moldova	0.0	0.0	0.0	0.0	0.0	0.0	-5.7%	-4.5%	-3.4%	44.2%	-6.2%
Russia	999.5	1141.4	1259.9	1065.6	977.9	904.3	2.7%	2.0%	-8.0%	-8.2%	-7.5%
Tajikistan	1.9	2.1	1.8	1.5	1.6	1.6	2.0%	-2.4%	-9.0%	4.1%	-1.8%
Turkmenistan	62.1	71.1	74.6	51.9	55.6	31.5	2.8%	0.9%	-16.6%	7.0%	-43.3%
Ukraine	155.7	149.4	130.7	114.1	103.8	92.6	-0.8%	-2.6%	-6.6%	-9.1%	-10.8%
Uzbekistan	31.0	30.8	36.7	37.9	39.7	41.9	-0.1%	3.5%	1.6%	4.7%	5.7%
Baltics	9.3	10.3	11.1	9.2	8.8	16.2	2.0%	1.5%	-8.8%	-4.6%	85.0%
Total Net Import	**-212.21**	**-219.18**	**-249.50**	**-196.66**	**-203.63**	**-218.93**	**0.6%**	**2.6%**	**-11.2%**	**3.5%**	**7.5%**
Total Gross Inland Consumption	**1134.2**	**1274.4**	**1356.6**	**1170.4**	**1073.3**	**949.5**	**2.4%**	**1.3%**	**-7.1%**	**-8.3%**	**-11.5%**
Armenia	5.9	8.2	7.3	3.3	1.5	0.8	6.9%	-2.1%	-32.8%	-54.0%	-49.6%
Azerbaijan	18.9	21.3	23.6	20.8	18.7	17.2	2.3%	2.1%	-6.1%	-10.1%	-7.9%
Belarus	19.1	37.7	42.5	35.1	28.6	25.0	14.6%	2.4%	-9.1%	-18.4%	-12.7%
Georgia	10.8	11.6	11.0	6.1	4.3	2.8	1.6%	-1.1%	-25.3%	-30.3%	-35.0%
Kazakhstan	60.9	71.1	79.0	79.5	66.9	62.6	3.2%	2.1%	0.3%	-15.8%	-6.4%
Kyrgyzstan	5.9	7.5	7.6	5.6	4.7	4.3	5.0%	0.3%	-14.0%	-17.2%	-7.0%
Moldova	10.4	10.4	10.9	8.1	6.0	4.8	0.0%	1.0%	-13.9%	-25.2%	-21.3%
Russia	742.4	756.9	818.4	695.5	666.8	577.5	0.4%	1.6%	-7.8%	-4.1%	-13.4%
Tajikistan	4.6	6.0	5.7	3.7	3.5	2.5	5.5%	-0.9%	-19.5%	-6.4%	-27.1%
Turkmenistan	8.5	14.3	15.4	14.1	10.1	10.0	10.9%	1.8%	-8.4%	-27.8%	-1.6%
Ukraine	194.4	256.5	250.5	220.0	187.5	162.4	5.7%	-0.5%	-6.3%	-14.7%	-13.4%
Uzbekistan	26.6	39.0	47.7	46.6	46.3	45.8	8.0%	4.1%	-1.2%	-0.6%	-1.1%
Baltics	24.6	34.1	37.2	23.5	20.1	22.9	6.7%	1.7%	-20.6%	-14.1%	13.5%

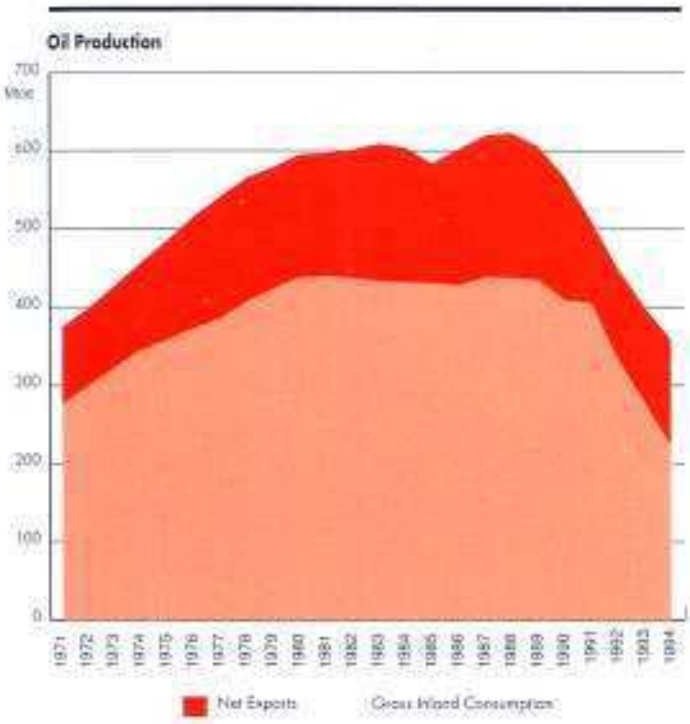
CIS as a whole remains the second biggest energy producer in the world after the United States, and the world's leading producer and exporter of natural gas. CIS republics produce all forms of primary fossil fuels, but not equally distributed. For solid fuels, CIS (210 Mtoe in 1992) is now the third largest producer in the world after China (600 Mtoe) and the United States (536 Mtoe). Solid fuel output decreased after 1980, when the annual production was of 331 Mtoe, down to 210 Mtoe in 1994, losing more than 10% in each of the two last years. The production is mainly concentrated in Russia (49% in 1994), Kazakhstan (26%) and Ukraine (24%) with the remaining percent mainly located in Uzbekistan. If considered individually, Russia comes fifth worldwide, being surpassed by India and Australia.



CIS : SOLID FUELS

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Total Production	**338.7**	**312.5**	**300.5**	**266.9**	**239.7**	**213.5**	**-1.6%**	**-0.8%**	**-5.8%**	**-10.2%**	**-10.9%**
Armenia	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Azerbaijan	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Belarus	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Georgia	0.6	0.6	0.3	0.2	0.1	0.1	-2.2%	-10.1%	-29.3%	-40.0%	-33.3%
Kazakhstan	59.5	67.5	67.9	65.5	57.8	53.9	2.5%	0.1%	-1.8%	-11.8%	-6.8%
Kyrgyzstan	1.3	1.3	1.2	0.7	0.6	0.3	0.0%	-1.5%	-22.9%	-22.7%	-52.9%
Moldova	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Russia	166.1	137.5	138.8	125.7	116.8	103.3	-3.7%	0.2%	-4.8%	-7.0%	-11.6%
Tajikistan	0.3	0.3	0.2	0.1	0.1	0.0	0.0%	-12.9%	-36.8%	0.0%	-50.0%
Turkmenistan	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Ukraine	100.9	96.8	84.4	68.4	59.2	50.9	-0.8%	-2.7%	-10.0%	-13.4%	-14.1%
Uzbekistan	1.9	1.7	2.1	1.6	1.3	1.3	-2.6%	5.4%	-15.0%	-19.1%	0.0%
Baltics (1)	8.0	6.8	5.6	4.8	3.8	3.8	-3.2%	-3.8%	-7.4%	-20.8%	0.0%
Total Net Import	**-11.05**	**-8.80**	**-11.72**	**-11.40**	**-11.09**	**-9.90**	**-4.5%**	**5.9%**	**-1.4%**	**-2.7%**	**-10.7%**
Total Gross Inland Consumption	**326.8**	**301.1**	**288.8**	**246.5**	**233.8**	**208.2**	**-1.6%**	**-0.8%**	**-7.6%**	**-5.2%**	**-10.9%**
Armenia	0.2	0.3	0.3	0.1	0.0	0.0	7.5%	4.6%	-55.3%	-100.0%	-
Azerbaijan	0.1	0.1	0.1	0.0	0.0	0.0	2.3%	0.0%	-100.0%	-	-
Belarus	0.8	1.5	1.8	1.0	1.0	0.5	14.6%	3.3%	-23.0%	0.0%	-50.0%
Georgia	1.3	1.4	1.0	0.4	0.3	0.1	1.7%	-6.5%	-36.8%	-33.3%	-50.0%
Kazakhstan	38.0	44.5	46.5	44.9	41.1	38.3	3.2%	0.9%	-1.7%	-8.6%	-6.8%
Kyrgyzstan	2.5	3.1	3.0	2.4	1.7	1.4	4.9%	-0.9%	-10.6%	-27.8%	-19.2%
Moldova	3.6	3.6	3.1	2.7	1.7	1.5	0.0%	-3.2%	-6.7%	-37.5%	-8.0%
Russia	192.1	136.2	137.5	115.5	120.7	108.6	-6.6%	0.2%	-8.3%	4.5%	-10.0%
Tajikistan	0.7	1.0	1.0	0.2	0.1	0.1	6.4%	0.0%	-55.3%	-33.3%	-50.0%
Turkmenistan	0.3	0.4	0.5	0.1	0.1	0.0	10.7%	2.7%	-50.0%	-50.0%	-100.0%
Ukraine	75.8	96.7	79.8	70.0	60.0	50.9	5.0%	-3.8%	-6.3%	-14.4%	-15.1%
Uzbekistan	2.8	4.0	5.5	3.2	2.3	2.2	8.0%	6.2%	-23.6%	-26.8%	-7.3%
Baltics (1)	8.8	8.3	8.8	5.9	4.8	4.6	-1.2%	1.2%	-18.1%	-18.6%	-4.2%

(1) Including oil shale

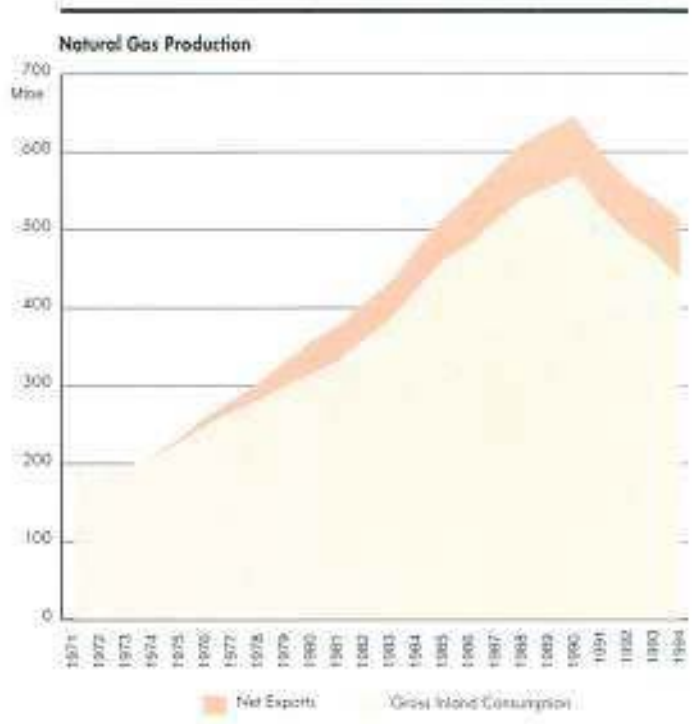


Crude oil production has decreased since 1980 (606 Mtoe) to reach only 360 Mtoe in 1994, with an accelerating trend (more than -10% per year) since 1990. Russia represented more than 93% of the total production, remaining the third world producer after Saudi Arabia (426 Mtoe) and the United States (395 Mtoe).

CIS : OIL

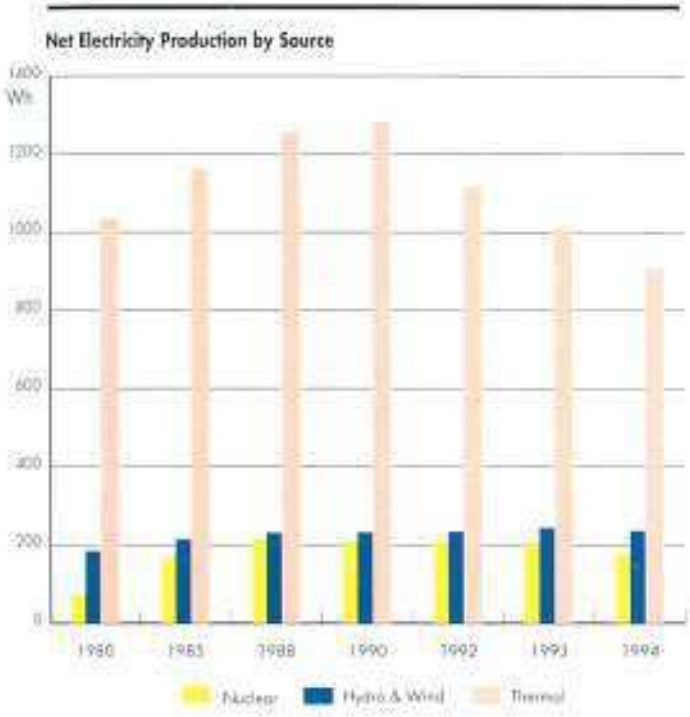
Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Total Production	**606.2**	**598.2**	**573.5**	**456.0**	**402.3**	**359.8**	**-0.3%**	**-0.8%**	**-10.8%**	**-11.8%**	**-10.5%**
Armenia	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Azerbaijan	9.8	8.7	8.3	7.5	6.9	6.4	-2.3%	-0.9%	-5.3%	-8.0%	-6.8%
Belarus	0.0	0.0	0.0	0.0	0.0	0.0	-	0.5%	-2.3%	2.0%	0.0%
Georgia	1.1	0.2	0.1	0.0	0.0	0.0	29.7%	-20.0%	-9.6%	-32.0%	-2.0%
Kazakhstan	9.6	11.8	13.3	13.3	11.9	10.5	4.0%	2.5%	0.0%	-10.9%	-11.7%
Kyrgyzstan	0.1	0.1	0.1	0.0	0.0	0.3	-1.0%	-4.0%	-14.2%	-12.3%	860.0%
Moldova	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Russia	576.2	570.0	544.6	428.4	377.1	335.6	-0.2%	-0.9%	-11.3%	-12.0%	-11.0%
Tajikistan	0.1	0.1	0.0	0.0	0.0	0.0	-0.7%	-17.9%	-32.3%	-39.4%	0.0%
Turkmenistan	5.0	3.8	3.5	3.3	2.8	2.7	-5.5%	-1.4%	-3.6%	-15.4%	-2.3%
Ukraine	3.8	3.0	2.7	2.3	2.2	2.2	-5.0%	-1.8%	-7.9%	-4.4%	-2.3%
Uzbekistan	0.4	0.7	0.9	1.1	1.3	1.8	8.7%	7.3%	8.6%	21.2%	37.5%
Baltics	0.0	0.0	0.0	0.1	0.1	0.3	-	-	-	0.0%	200.0%
Total Net Import	**-156.9**	**-153.1**	**-158.1**	**-116.1**	**-122.0**	**-132.4**	**-0.5%**	**0.6%**	**-14.3%**	**5.1%**	**8.5%**
Total Gross Inland Consumption	**437.5**	**430.7**	**408.5**	**333.8**	**278.8**	**223.4**	**-0.3%**	**-1.1%**	**-9.6%**	**-16.5%**	**-19.9%**
Armenia	2.2	3.1	3.5	1.7	0.7	0.3	7.5%	2.4%	-30.5%	-57.6%	-60.7%
Azerbaijan	7.6	8.5	8.8	8.9	8.9	7.8	2.3%	0.6%	0.9%	-1.1%	-12.3%
Belarus	14.7	29.0	28.6	19.2	14.0	12.8	14.6%	-0.3%	-18.1%	-26.9%	-8.6%
Georgia	5.4	5.9	4.9	1.4	0.7	0.3	1.7%	-3.9%	-46.5%	-46.6%	-62.4%
Kazakhstan	16.1	18.9	20.3	19.2	14.2	15.0	3.2%	1.5%	-2.8%	-26.0%	5.7%
Kyrgyzstan	2.2	2.9	2.4	1.1	0.9	0.3	4.9%	3.1%	-31.6%	-22.7%	-63.9%
Moldova	6.2	6.2	4.9	2.8	2.1	1.0	0.0%	-4.6%	-23.8%	-27.3%	-50.2%
Russia	310.3	259.4	248.1	216.7	191.9	147.1	-3.3%	-0.9%	-6.5%	-11.4%	-23.3%
Tajikistan	1.9	2.6	2.0	0.9	0.8	0.2	6.4%	-5.1%	-31.8%	-19.5%	-68.9%
Turkmenistan	1.3	2.1	2.2	3.5	2.6	2.8	10.7%	1.1%	24.8%	-25.3%	7.9%
Ukraine	52.1	66.4	56.7	40.3	26.6	22.0	5.0%	-3.1%	-15.7%	-33.9%	-17.2%
Uzbekistan	7.0	10.3	11.2	9.7	7.6	7.4	8.0%	1.6%	-7.0%	-21.0%	-3.4%
Baltics	10.4	15.3	14.9	8.4	7.8	6.3	8.0%	-0.6%	-25.0%	-7.0%	-19.0%

Production of natural gas increased steadily until 1990 (from 360 Mtoe in 1980 to 656 Mtoe in 1990) but lost about 21% of its value since then. However natural gas remained the main indigenous energy source. For the latter Russia was also the main contributor in 1994 (82% of the total CIS production), with the remaining production divided between Uzbekistan (7%), Turkmenistan (6%) and Ukraine (3%). Depending on statistical sources, Russia is disputing with the United States the role of first world producer. But in any case it remains the primary exporter with about 40% of the world exchanges. The production of primary fuels during the year 1994 were spread as following: natural gas with 44%; oil with 31%; solids with 18%; nuclear with 4%; hydro with 2% and renewable energy sources with 1%.

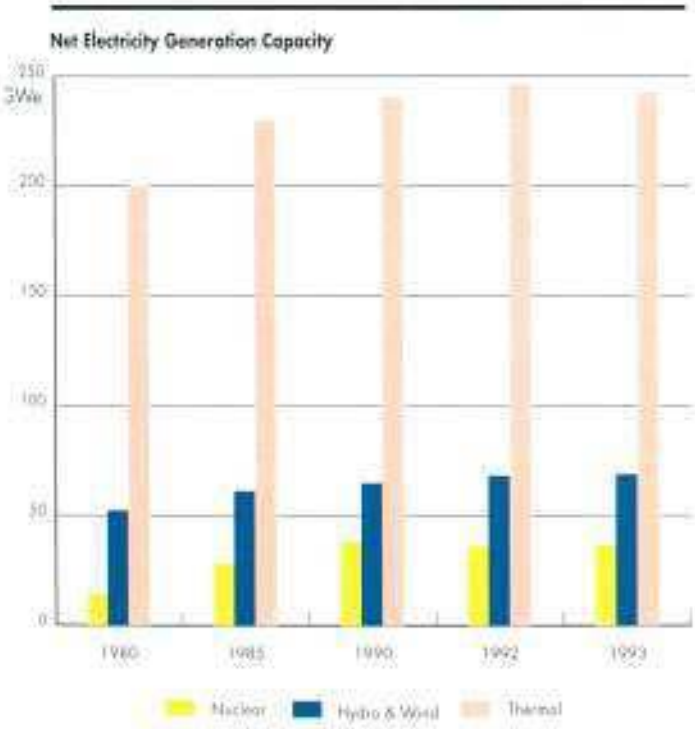


CIS : NATURAL GAS

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Total Production	**359.6**	**520.1**	**656.3**	**564.9**	**546.0**	**516.0**	**7.7%**	**4.8%**	**-7.2%**	**-3.4%**	**-5.5%**
Armenia	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Azerbaijan	11.3	11.4	8.0	6.3	5.5	5.2	0.1%	-6.7%	-11.4%	-12.8%	-6.3%
Belarus	0.3	0.2	0.2	0.2	0.2	0.2	-7.8%	4.1%	0.5%	-1.0%	1.0%
Georgia	0.2	0.1	0.0	0.0	0.0	0.0	-19.7%	-6.5%	-12.8%	-50.0%	-100.0%
Kazakhstan	3.5	4.4	5.8	6.6	5.4	3.6	5.0%	5.5%	6.7%	-17.3%	-32.8%
Kyrgyzstan	0.1	0.1	0.1	0.1	0.0	0.0	0.0%	-3.5%	-17.1%	-42.4%	-5.3%
Moldova	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Russia	212.9	373.5	515.2	451.4	429.9	425.0	11.9%	6.6%	-6.4%	-4.8%	-1.1%
Tajikistan	0.2	0.2	0.1	0.1	0.0	0.0	8.4%	-18.2%	-24.1%	-37.5%	-75.0%
Turkmenistan	57.1	67.4	71.1	48.7	52.8	28.8	3.4%	1.1%	-17.2%	8.5%	-45.4%
Ukraine	45.9	34.7	22.7	16.9	15.6	14.8	-5.4%	-8.1%	-13.7%	-8.1%	-4.7%
Uzbekistan	28.2	28.0	33.0	34.7	36.5	38.2	-0.1%	3.3%	2.5%	5.1%	4.9%
Baltics	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Total Net Import	**-42.59**	**-54.80**	**-76.69**	**-68.41**	**-69.69**	**-75.93**	**5.2%**	**7.0%**	**-5.5%**	**1.9%**	**8.9%**
Total Gross Inland Consumption	**315.9**	**460.9**	**569.6**	**495.3**	**470.9**	**437.1**	**7.8%**	**4.3%**	**-6.8%**	**-4.9%**	**-7.2%**
Armenia	2.4	3.5	3.6	1.5	0.7	0.7	7.5%	0.5%	-35.0%	-56.7%	7.3%
Azerbaijan	11.3	12.7	14.8	11.9	9.9	9.5	2.3%	3.2%	-10.3%	-17.3%	-3.9%
Belarus	3.7	7.2	12.1	14.8	13.5	11.8	14.6%	10.7%	10.8%	-8.7%	-12.6%
Georgia	3.6	3.9	4.4	4.0	2.9	2.1	1.7%	2.3%	-5.2%	-26.1%	-28.8%
Kazakhstan	6.4	7.5	11.7	15.0	11.2	8.9	3.2%	9.3%	13.0%	-25.3%	-20.2%
Kyrgyzstan	0.9	1.1	1.5	1.5	1.5	2.0	4.9%	6.0%	-1.3%	0.5%	36.0%
Moldova	0.8	0.8	3.2	2.8	2.5	2.4	0.0%	31.3%	-6.1%	-9.9%	-4.8%
Russia	196.0	301.3	371.8	303.3	300.3	281.6	9.0%	4.3%	-9.7%	-1.0%	-6.2%
Tajikistan	0.9	1.2	1.4	1.4	1.3	0.9	6.4%	2.6%	0.7%	-5.5%	-28.7%
Turkmenistan	7.2	12.0	12.9	10.7	7.7	7.4	10.7%	1.4%	-8.9%	-27.8%	-4.0%
Ukraine	61.7	78.7	93.4	89.9	80.6	70.7	5.0%	3.5%	-1.9%	-10.4%	-12.2%
Uzbekistan	16.5	24.3	30.7	33.4	36.0	35.9	8.0%	4.8%	4.4%	7.6%	-0.2%
Baltics	4.5	6.6	8.3	5.1	2.9	3.1	8.0%	4.7%	-21.4%	-43.1%	6.4%



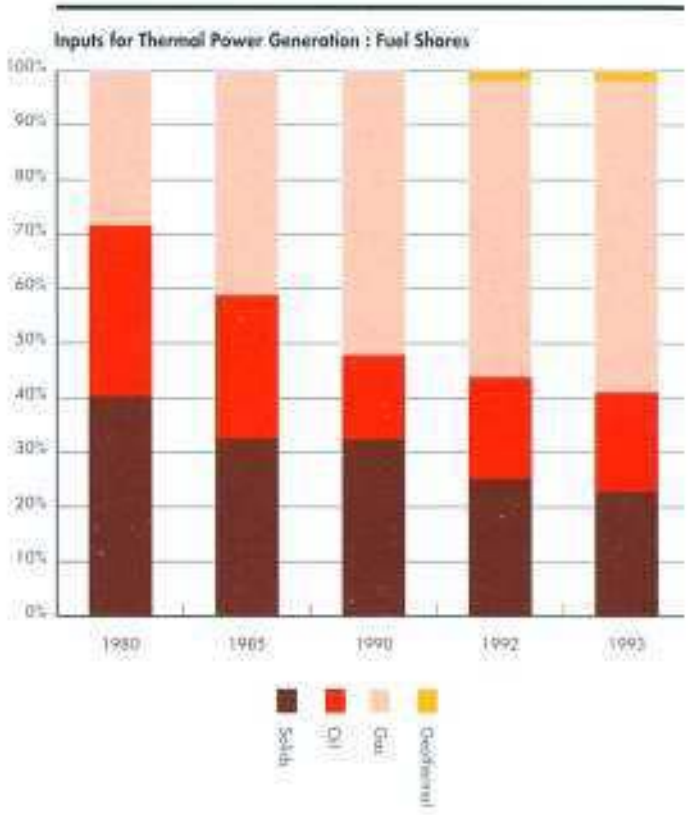
Export of energy has always been very important for the economy of the former USSR until 1990 and for Russia since then, being a source of hard currency, mainly from Western Europe. Exports represented about 18% of energy production in 1994. Total exported volumes increased until 1990 (250 Mtoe from 212 Mtoe in 1980). They dropped by 22% between 1990 and 1992, but half of the drop has yet to be recovered (219 Mtoe in 1994). This evolution is mainly due to exports of oil, the main exported energy form, which dropped by 30% between 1990 and 1992 but recovered about 40% of its losses since then. Exports of natural gas also peaked in 1990 (76 Mtoe) and then decreased by about 5% per year between 1990 and 1992. The decreasing trend has been stopped in 1993, while 1994 figures revealed an increase in gas export of about 9%. These variations are connected to fluctuating demand for gas in Central and Eastern European countries, as a consequence of the implementation of economic changes and reforms. The volume of solid fuel exports has remained stable at around 10 Mtoe over the last 15 years. CIS is almost self sufficient in electricity and exports only a tiny part of its production (a maximum of 3 Mtoe in 1990; less than 1 Mtoe since then).



Electricity generation in CIS (including the Baltics) also peaked in 1990, and decreased continuously since then by 6.5% on average per year (with an acceleration in 1994 to 9.5%), decreasing to the production level of the early eighties. Although it shows a continuous decrease since 1990 by 8.3% per year on average, thermal generation remains the most important source of electricity, with about two thirds of the total generation in 1994. Hydro power output increased until 1993 (2% per year) but dropped by 3% in 1994. Hydro represented about 18% of the electricity production in 1994. Nuclear production, which tripled its contribution from 1980 to 1990, stagnated in 1993 and dropped by 13.4% in 1994. This trend is mainly due to the progressive decommissioning of obsolete and unsafe nuclear power plants. **The installed capacity** peaked in 1992 with 350 GWe of which 70% of thermal, 19% nuclear and 11% hydro. Since 1980, incremental capacities have been divided between thermal (46 GWe or 55% of total increment), nuclear (22 GWe or 26%) and hydro (16 GWe or 19%). The load factor has been increased during the 80s to reach 57.4% in 1990 but has sharply declined since then in line with the reduction of production to 48.0% in 1993.

Regarding the fuel mix for **thermal power generation**, the use of solid fuels remained quite stable over the eighties in absolute figures; its share dropping progressively from 40% in 1980 to only 23% in 1993. Gas, representing 97 Mtoe in 1980 (28% of total inputs), became the most important fuel for power generation since 1985 (41% of total) and continued to grow in volume until 1990 (52% of total). Its contribution remained rather constant since 1990 at a level of about 220 Mtoe/year, corresponding to a share of 57% in 1993. The consumption of oil for electricity production decreased between 1980 and 1990, as a result of the penetration of natural gas in this market. Since 1990, the contribution of oil remained rather constant at about 70 Mtoe. The average efficiency of the power stations in the former USSR is low (around 25%, without considered heat cogenerated in most of the thermal units) and has even decreased down to 22% over the last years.

The energy intensity of CIS (bearing in mind all the necessary precautions when determining GDP) is about six times higher than the average of the European Union. From 1980 to 1990, this energy intensity decreased by about 1.2% per year. However, the energy intensity increased sharply by 15% between 1990 and 1992, stabilised in 1993, but increased again by more than 6% in 1994. These losses in efficiency are mainly due to the significant drop in the economic activity while, at the same time, fixed basic energy needs must still be satisfied.



The CO2 emissions in CIS increased from 3190 Mtoe in 1980 to 3486 in 1990 and then dropped down to 2600 Mtoe in 1993 in line with the evolution of gross inland consumption. CO2 emissions per capita are more than three times higher than the European Union level.

CIS: Major trends (1980-1994)

- **Total decline of GDP by about 43% between 1990 and 1994 without until now any sign of recovery**
- **Final energy demand fell by more than 23% these last four years and gross inland consumption by 30%**
- **Oil represented 50% of the reduction of consumption**
- **CIS remained the second biggest energy producer in the world**
- **World's leading exporter of gas**
- **Energy intensity increased by 23% since 1990**
- **CO2 emissions per capita more than three times higher than the European Union level**

CIS (1) : SUMMARY ENERGY BALANCE

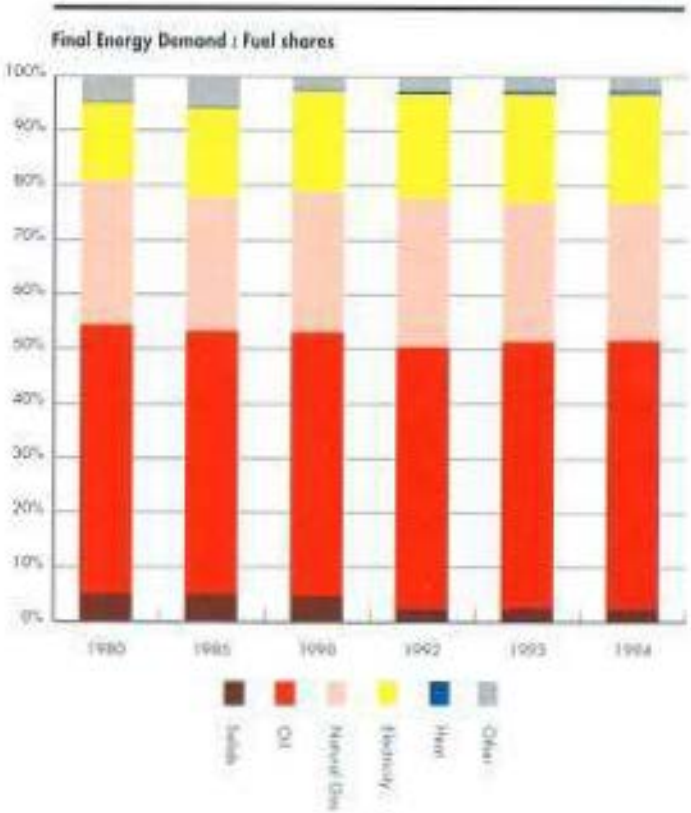
Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	1360,1	1514,9	1623,1	1383,4	1278,5	1170,8	2,2%	1,4%	-7,7%	-7,6%	-8,4%
Solids	338,7	312,5	300,5	266,9	239,7	213,5	-1,6%	-0,8%	-5,8%	-10,2%	-10,9%
Oil	606,2	598,2	573,5	456,0	402,3	359,8	-0,3%	-0,8%	-10,8%	-11,8%	-10,6%
Natural gas	359,6	520,1	656,3	564,9	546,0	516,0	7,7%	4,8%	-7,2%	-3,4%	-5,5%
Nuclear	19,0	43,5	55,1	54,2	53,8	46,6	18,0%	4,8%	-0,8%	-0,7%	-13,4%
Hydro & Wind	18,2	20,4	21,8	20,2	21,0	20,4	2,3%	1,4%	-3,9%	4,0%	-3,0%
Geothermal	0,0	0,0	0,0	6,6	6,2	5,7	-	-	-	-5,1%	-8,3%
Other	18,4	20,2	15,8	14,6	9,6	8,8	1,9%	-4,9%	-3,6%	-34,3%	-8,5%
Net Imports	-212,2	-219,2	-249,5	-196,7	-203,6	-218,9	0,6%	2,6%	-11,2%	3,5%	7,5%
Solids	-11,1	-8,8	-11,7	-11,4	-11,1	-9,9	-4,5%	5,9%	-1,4%	-2,7%	-10,7%
Oil	-156,9	-153,1	-158,1	-116,1	-122,0	-132,4	-0,5%	0,6%	-14,3%	5,1%	8,5%
Crude oil	-116,1	-105,1	-108,5	-82,2	-88,8	na	-2,0%	0,6%	-13,0%	8,0%	na
Oil products	-40,9	-48,0	-49,5	-33,9	-33,3	na	3,3%	0,6%	-17,3%	-1,8%	na
Natural gas	-42,6	-56,8	-76,7	-68,4	-69,7	-75,9	5,2%	7,0%	-5,5%	1,9%	8,9%
Electricity	-1,6	-2,5	-3,0	-0,8	-0,8	-0,7	8,6%	3,9%	-49,1%	4,6%	-14,1%
Gross Inland Consumption	1134,2	1274,4	1356,6	1170,4	1073,3	949,5	2,4%	1,3%	-7,1%	-8,3%	-11,5%
Solids	326,8	301,1	288,8	246,5	233,8	208,2	-1,6%	-0,8%	-7,6%	-5,2%	-10,9%
Oil	437,5	430,7	408,5	333,8	278,8	223,4	-0,3%	-1,1%	-9,6%	-16,5%	-19,9%
Natural gas	315,9	460,9	569,6	495,3	470,9	437,1	7,8%	4,3%	-6,8%	-4,9%	-7,2%
Other (3)	54,0	81,7	89,7	94,8	89,8	80,8	8,6%	1,9%	2,8%	-5,2%	-10,1%
Electricity Generation in TWh	1294,0	1544,0	1727,0	1559,9	1460,5	1321,7	3,6%	2,3%	-5,0%	-6,4%	-9,5%
Nuclear	73,0	167,0	211,5	208,0	206,5	178,8	18,0%	4,8%	-0,8%	-0,7%	-13,4%
Hydro & wind	184,7	214,4	233,0	234,7	244,2	236,8	3,0%	1,7%	0,4%	4,0%	-3,0%
Thermal	1036,3	1162,6	1282,5	1117,2	1009,8	906,1	2,3%	2,0%	-6,7%	-9,6%	-10,3%
Generation Capacity in GWe	266,8	319,3	343,7	350,9	347,7	na	3,7%	1,5%	1,0%	0,9%	na
Nuclear	14,0	28,1	37,9	36,1	36,4	na	15,0%	6,2%	2,4%	1,0%	na
Hydro & wind	52,5	61,3	65,0	68,3	68,8	na	3,1%	1,2%	2,5%	0,7%	na
Thermal	200,2	229,9	240,8	246,5	242,5	na	2,8%	0,9%	1,2%	-1,7%	na
Average Load Factor in %	55,4	55,2	57,4	50,8	48,0	na	0,1%	0,8%	-5,9%	-5,5%	na
Fuel Inputs for Thermal Power Generation	342,6	397,9	439,3	397,7	384,4	na	3,0%	2,0%	-4,9%	-3,3%	na
Solids	138,4	129,6	142,7	100,2	88,2	na	-1,3%	1,9%	-16,2%	-12,0%	na
Oil	107,2	104,6	67,8	74,5	70,0	na	0,5%	-8,3%	4,8%	-6,1%	na
Gas	97,0	163,7	228,8	216,7	220,2	na	11,0%	6,9%	-2,7%	1,6%	na
Geothermal	0,0	0,0	0,0	6,4	6,0	na	-	-	-	-5,1%	na
Other	0,0	0,0	0,0	0,0	0,0	na	-	-	-	-	-
Average Thermal Efficiency in %	25,8	25,0	25,0	24,2	22,6	na	-0,7%	0,0%	-1,7%	-6,5%	na
Non-Energy Uses	62,2	65,5	71,2	74,2	45,3	na	1,1%	1,7%	2,1%	-38,9%	na
Total Final Energy Demand	793,1	843,0	891,8	738,7	696,0	na	1,2%	1,1%	-9,0%	-5,8%	na
Solids	189,2	148,6	141,3	115,8	108,3	na	-4,7%	-1,0%	-9,5%	-6,5%	na
Oil	264,5	266,9	265,0	203,9	170,8	na	0,2%	-0,1%	-12,3%	-16,2%	na
Gas	162,6	203,9	248,0	187,4	199,3	na	4,6%	4,0%	-13,1%	6,3%	na
Electricity	82,9	97,5	107,3	104,6	96,6	na	3,3%	1,9%	-1,3%	-7,7%	na
Heat	71,0	101,9	110,8	112,3	111,4	na	7,5%	1,7%	0,7%	-0,8%	na
Other	23,0	24,2	19,4	14,6	9,6	na	1,0%	-4,4%	-13,1%	-34,2%	na
CO2 Emissions in Mt of CO2	3189,6	3325,7	3486,0	2747,4	2600,9	na	0,8%	0,9%	-11,2%	-5,3%	na
Indicators											
Population (Million)	271,24	282,68	294,04	297,69	299,73	300,40	0,8%	0,8%	0,6%	0,7%	0,2%
GDP (Index 1985=100)	83,5	100,0	112,1	83,7	76,5	63,7	3,7%	2,3%	-13,6%	-8,6%	-16,7%
Gross Inl Cons./GDP (toe/1985 MECU)	1556,3	1459,4	1385,7	1600,8	1606,3	1705,8	-1,3%	-1,0%	7,5%	0,3%	6,2%
Gross Inl Cons./Capita (toe/inhabitant)	4,2	4,5	4,6	3,9	3,6	3,2	1,5%	0,5%	-7,7%	-8,9%	-11,7%
Electricity Generated/Capita (kWh/inhabitant)	4771	5462	5873	5240	4873	4400	2,7%	1,5%	-5,5%	-7,0%	-9,7%
CO2 Emissions/Capita (t.of CO2/inhabitant)	11,8	11,8	11,9	9,2	8,7	na	0,0%	0,2%	-11,8%	-6,0%	na
Import Dependency %	-18,6	-17,1	-18,3	-16,7	-18,9	na	-1,7%	1,4%	-4,4%	12,9%	na

(1) Includes Baltic countries for statistical coherence reasons
(2) Energy data estimated
(3) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources

PART V NAFTA

NAFTA comprises Canada, Mexico and the United States. But in fact the economic development is largely dominated by the United States which contributed in 1994 up to 89% of the GDP of the whole region, with only 7% by Canada and 4% by Mexico. Globally, GDP increased by an average rate of 2.5% per year since 1985, the same rate as in the United States.

The **final energy demand** increased annually by only 0.3% between 1980 and 1994. This trend is not constant, the period 1980-85 being a period of slight reduction in energy consumption in the United States and Canada in relation to high energy prices, followed by a constant slight increase, up to 1992. The economic crisis of 1992-93 induced a reduction in final energy demand by -0.3% affecting only the United States (-0.7%), while the period 1993-94 saw a global increase of 1.9%. Solid fuels saw their contribution reduced by more than 50% over the period; leading to a consumption of 36.4 Mtoe in 1994 or 2.4% of the final demand. Consumption of oil has fluctuated, although overall it remained constant between 1980 and 1992. Since then, the consumption of oil increased respectively by 1.7% in 1993 and 2.8% in 1994, to reach 745 Mtoe or about 50% of the final energy demand. Natural gas demand had remained globally constant over the period at about 382 Mtoe (25% of 1994 demand), after a peak consumption at 404 Mtoe in 1992. Electricity demand shows a steadily increasing trend (2.8% per year on average over the period), representing finally about 20% of the final energy consumption in 1994. The time series for heat consumption presented a break in 1990, due to a new statistical accounting system of this energy form in the United States, modifying the split of biomass consumption between thermal power generation and final consumption. All these figures are largely influenced by the situation prevailing on the United States market. Indeed in 1994, this country accounted for 83% of NAFTA's final energy demand, while it represented 68% of the population and 89% of the GDP in the NAFTA region.

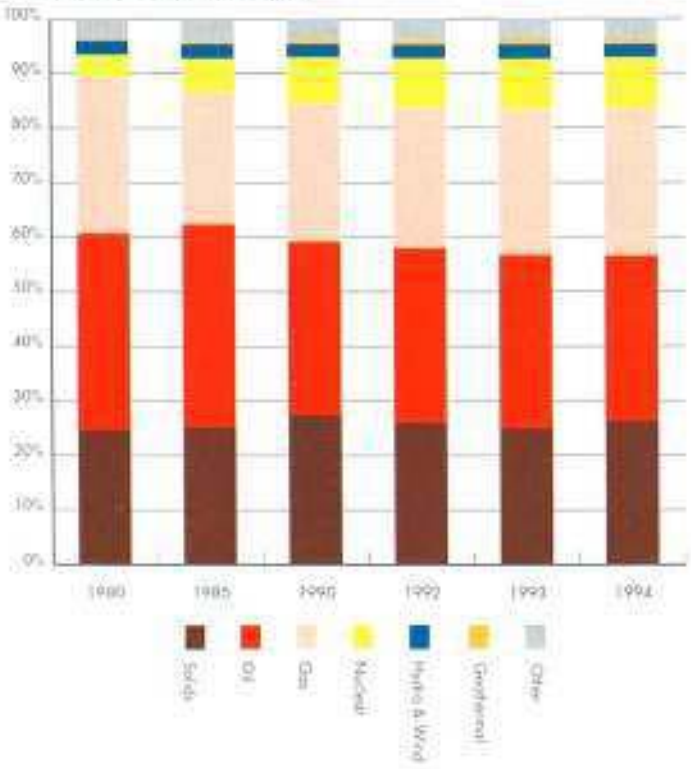


Gross inland consumption in the NAFTA region showed a steady increase over the period by about 1% per year, with in fact an acceleration to 1.7% per year on average since 1990, compensating for the decline observed during the first half of the 80s. This growth, however, was not equally spread over all the primary fuels. Solid fuels demand increased by about 21% between 1980 and 1994 and by only 4% since then; its

consumption remains quite constant at 503 Mtoe over the two last years (21% of total gross consumption compared to 19% in 1980). Although there was a drop in demand for oil and natural gas between 1980 and 1985, the use of both energy sources increased steadily since then, gas again reaching its 1980 value in 1992 (representing 24% of total) and oil in 1994. Oil remains the major energy vector of NAFTA countries with about 40% of the total gross inland consumption against 45% in 1980. Non-fossil fuel energy increased continuously, reaching about 15% of the total in 1994. Nuclear contributed mainly to this increase (206 Mtoe in 1994 versus 80 Mtoe in 1980), the other sources (hydro and biomass) showing moderate rates of increase.

Energy production in NAFTA countries increased steadily by about 1% between 1980 and 1992. 1993 saw a fall of -0.8% in 1993 due to the economic crisis but 1994 showed a recovery by 4%. In 1994, solid fuels accounted for 26% of the total, with 579 Mtoe. This matches the 1990 record value over the period, after significant reductions in production during 1992 and 1993, and an even more vigorous recovery in 1994, that saw a record increase in solid fuels production by 9.6%. Oil contributed 591 Mtoe for 27% of the energy production in NAFTA countries; in absolute terms, the production of oil has stagnated in NAFTA countries since 1990. In fact, the reduction of production in the United States since 1990 (-30 Mtoe) was compensated by Canada (+14 Mtoe) and Mexico (+10 Mtoe). Natural gas production was reduced between 1980 and 1985 by 2.3% per year on average and since then increased continuously to reach in 1992 its 1980 value and to peak in 1994 at 591 Mtoe. Nuclear energy represented 206 Mtoe in 1994, 9.4% of the primary energy production. Nuclear was mainly developed during the 80s showing an 8.5% increase per year of its contribution. Since 1990 its use continued to increase, but with a rate that dropped progressively down to 0.8% in 1993. 1994 again saw a vigorous increase by 5.9%. This figure reflects the situation on the US market, that showed an increase by about 5% during 1994. However the case of Canada must be emphasised; the contribution of nuclear increased by 17 and 13% respectively over the two last years. Renewable energy sources (156 Mtoe or 7% of the total production in 1994) exhibit non homogenous trends: hydro and wind remain almost constant since 1985, while the contribution of geothermal energy was multiplied by three over the period 1980-1990, to remain rather constant since then. Other sources (biomass,...) made a constant contribution of about 80 Mtoe since 1985.

Primary Production : Fuel shares



The NAFTA region is a **net importer of energy**. Although its import dependency index dropped down to 3.2% in 1985, it increased since then, with a slowdown during the 1992-1993 crisis, to again reach its 1980 level during 1994 (11.2% as import dependency). This importation is mainly in the form of crude oil. These imports have largely fluctuated since 1980: from a level of 265 Mtoe in 1980 it has fallen to only 109 Mtoe in 1985, and since then saw a continuous increase to reach 267 Mtoe in 1990 and 319 Mtoe in 1994 representing 34% of the NAFTA gross consumption in oil. But the situation is quite different from country to country. In fact the United States are the only net importer of crude (415 Mtoe in 1994), the two other being net exporters (Mexico with 72 Mtoe and Canada with 24 Mtoe). Imports of oil products have dropped considerably, mainly due to a decrease in importation by the United States. The region became an even net exporter in 1993 but retrieved its original status in 1994. On the other hand, the NAFTA region exports 9.4% of its production in solid fuels (54 Mtoe in 1994). This export of solid fuels dropped by 23% during 1992 but

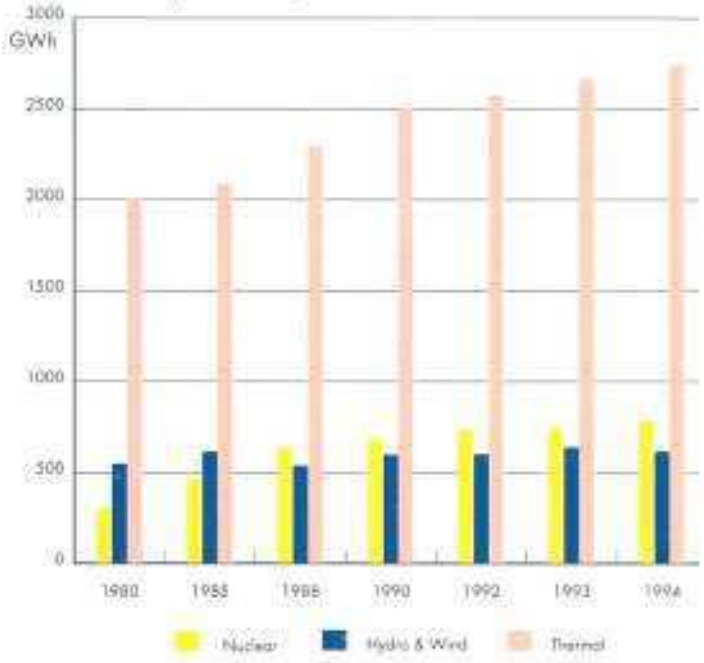
stabilised during 1993 and 1994. The NAFTA countries are practically self-sufficient in natural gas, due to significant exports from Canada to the United States. In the same way, the global self-sufficiency in electricity results from exports from Canada to the United States.

Electricity generation is based mainly on thermal units (66% in 1994), whose contribution continued to grow by about 3% per year over the two last years. Nuclear energy became more important than hydro in the late 1980s. These latter sources contributed, in 1994, for 19% and 15% of the total generation respectively. The incremental production since 1980 (1287 TWh corresponding to an annual average increase by 2.7%) has been covered by thermal units for 57%, nuclear for 38% and hydro for 5%. The load factor of power plants increased from 47% in 1980 to about 52% in 1994.

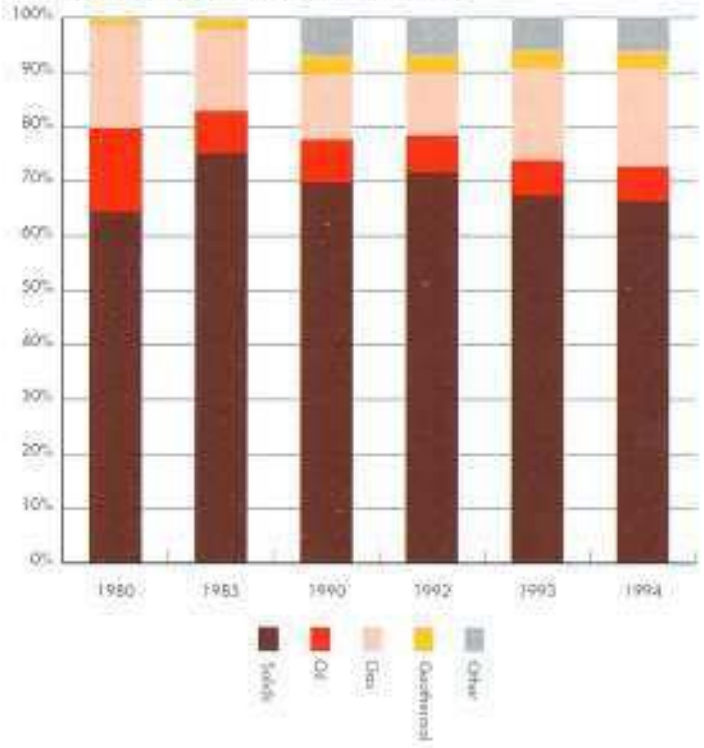
The **installed capacity** reached 915 GWe in 1994 compared to 702 GWe in 1980. Nuclear capacity has been developed during the 80s (51 GWe or 44% of total nuclear capacity in 1994) and remained stable since then. Hydro capacity continued its expansion by about 2% per year even this was not directly reflected at the production level which increased by only 0.8% per year since 1980. Thermal units which represent 56% of additional capacity grew by about 1.5% per year over the considered period.

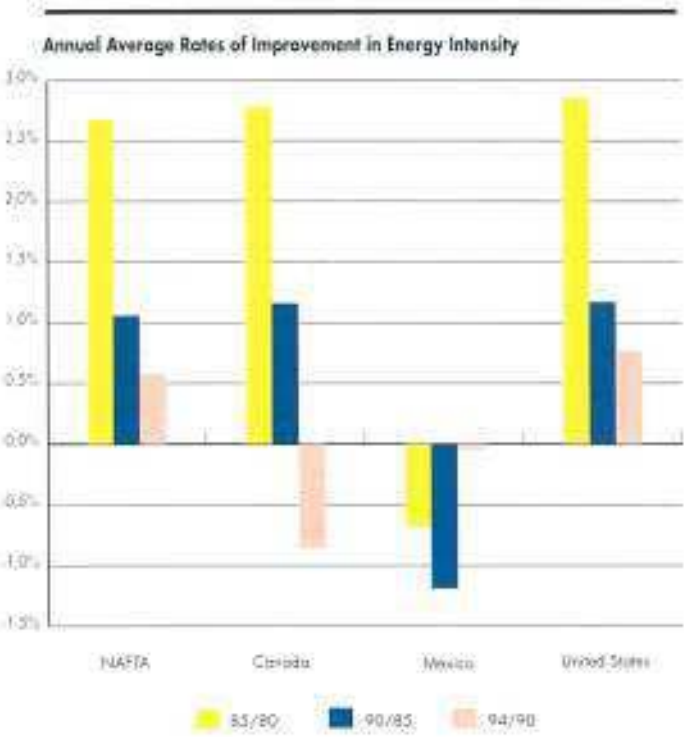
Fuel mix for thermal generation has been dominated by solid fuels, which accounted for two third of the fuel inputs over the period. The contribution of natural gas increased significantly since 1992, due to the implementation of combined cycle units. The use of oil for electricity generation has been reduced between 1980 and 1985, for energy independence purposes, and remained constant since then, contributing to 6.3% of the produced electricity in NAFTA countries. As already mentioned statistical accounting of biomass consumption changed in 1990, demonstrating the significant part played by this fuel for electricity generation in the United States. Finally Geothermal increased its contribution by a factor of four between 1980 and 1994.

Net Electricity Production by Source



Inputs for Thermal Power Generation : Fuel Shares





NAFTA remains, however, a heterogeneous region. This is clearly shown by some indicators. In terms of **energy intensity** Canada (415 Mtoe/1985 MECU in 1994) and even more the United States (308 in 1994) are less intensive than Mexico (488.9 in 1994). The trends are also different. While the USA and Canada significantly reduced their intensity by 21% and 15% respectively since 1980, Mexico increased its energy intensity factor by 10% over the same period. This is a result of industrial restructuration in the USA and in Canada, while Mexico underwent industrialisation and economic development in the meantime.

Energy consumption per capita on average in NAFTA was almost double that of the European Union in 1994, but remained rather stable over the period, while a slight increase has been observed in Europe over the same period. Mexico remained stable at the level of 1.5 toe/inhabitant over the period, 19% of the United States figure. Canada's consumption per capita is slightly higher than that of the United States. The weather conditions prevailing during Canadian winters is, at least partly, an explanation for this outcome. But short term evaluations (since 1990) are quite different with a continued improvement in the United States, a stabilisation in Mexico, and losses in Canada.

The **GDP per capita** for Mexico reached 3.1 thousand 1985 ECU per inhabitant in 1994, Canada and the United States exhibiting 19.1 and 25.5 thousand 1985 ECU per inhabitant respectively. Compared to the average of the European Union (12.2 thousand 1985 ECU per inhabitant), NAFTA was, however, globally higher by 61% than the peak in 1994 (69% higher in 1980).

As a result of the levels and patterns of energy demand, CO2 emissions increased globally over the period from 5203 to 5764 Mt of CO2/year. (About 0.6% per year on average). As shown however by the **CO2 emission per capita**, almost constant over the last decade, the increase in CO2 emissions may be explained by demographic factors alone. Among the countries of the NAFTA region in 1994, Mexico had the lowest level (3.6 tonnes of CO2 per inhabitant) while the figures reach a maximum of 19.2 tonnes of CO2 per inhabitant in the United States. These figures may be compared to the 8.7 tonnes of CO2 per inhabitant prevailing in Europe.

NAFTA : MAIN INDICATORS

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
NAFTA	399.1	348.4	330.3	331.9	329.5	322.7	-2.7%	-1.1%	0.2%	-0.7%	-2.1%
United States	389.2	336.6	317.4	317.9	315.3	307.7	-2.9%	-1.2%	0.1%	-0.8%	-2.4%
Canada	489.5	425.0	401.0	413.4	417.0	414.9	-2.8%	-1.2%	1.5%	0.9%	-0.5%
Mexico	444.5	459.9	488.0	489.6	488.4	488.9	0.7%	1.2%	0.2%	-0.3%	0.1%
Gross Inland Consumption per Capita (toe/inhabitant)											
NAFTA	6.5	6.1	6.2	6.2	6.3	6.3	-1.4%	0.3%	-0.1%	1.1%	0.6%
United States	7.9	7.4	7.7	7.7	7.8	7.8	-1.2%	0.6%	0.1%	1.5%	0.5%
Canada	7.9	7.5	7.6	7.5	7.7	7.9	-1.0%	0.3%	-0.3%	1.9%	2.9%
Mexico	1.5	1.5	1.5	1.5	1.5	1.5	0.3%	0.3%	1.4%	-2.0%	1.8%
Energy Dependency (%)											
NAFTA	11.5	3.2	9.3	8.5	10.4	11.2	22.4%	23.5%	-4.4%	22.4%	8.3%
United States	16.5	11.0	12.4	12.7	20.3	21.6	-7.8%	9.6%	1.0%	14.7%	6.0%
Canada	-6.0	-26.1	-28.1	-39.3	-42.3	-45.9	34.0%	1.5%	18.2%	7.8%	8.3%
Mexico	-47.6	-70.4	-52.9	-51.8	-53.3	-46.8	8.1%	-5.6%	-1.0%	2.8%	-12.1%
Share of Total Gross Inland Consumption (%)											
United States	86.1	85.3	85.0	84.8	84.9	84.6	-0.2%	-0.1%	-0.1%	0.1%	-0.4%
Canada	9.2	9.3	9.3	9.3	9.3	9.5	0.2%	0.1%	-0.3%	0.7%	2.1%
Mexico	4.7	5.4	5.6	5.9	5.7	5.8	2.8%	0.9%	2.3%	-2.3%	1.9%
CO2 Emissions (Million tonnes of CO2)											
NAFTA	5202.5	5149.9	5462.5	5501.8	5652.2	5764.0	-0.2%	1.2%	0.4%	2.7%	2.0%
United States	4581.5	4510.4	4761.3	4778.5	4925.2	5006.1	-0.3%	1.1%	0.2%	3.1%	1.6%
Canada	412.7	386.2	411.5	416.0	415.1	426.7	-1.3%	1.3%	0.5%	-0.2%	2.8%
Mexico	208.3	253.3	289.7	307.3	311.9	331.2	4.0%	2.7%	3.0%	1.5%	6.2%
CO2 Emissions (t of CO2/inhabitant)											
NAFTA	16.3	15.1	15.1	14.8	15.0	15.1	-1.4%	-0.1%	-0.9%	1.4%	0.7%
United States	20.1	18.9	19.1	18.7	19.1	19.2	-1.2%	0.1%	-0.9%	2.0%	0.6%
Canada	16.8	14.9	14.8	14.6	14.4	14.7	-2.4%	-0.1%	-0.6%	-1.4%	1.6%
Mexico	3.1	3.4	3.4	3.5	3.5	3.6	1.3%	0.4%	0.9%	-0.7%	4.0%

NAFTA: Major trends (1980-1994)

- **Sustained GDP growth of 2.5% per year since 1980**
- **Incremental final energy demand covered almost exclusively by electricity**
- **Non-fossil fuels continuously increased their share in gross inland consumption**
- **Increasing energy dependency although resulting only from the situation in the United States**
- **Growing contribution of solids mainly for electricity generation**
- **Rapid expansion of nuclear during the 80s but additions limited to 1 unit in Canada since 1990**
- **Energy intensity improved by about 1.5% on average per year since 1980 but contrasted evolution with short term evolution indicating improvement in US, stability in Mexico and losses in Canada**

NAFTA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	1900.15	1996.43	2112.02	2129.39	2112.74	2197.66	1.0%	1.1%	0.4%	-0.8%	4.0%
Solids	470.24	502.47	580.16	556.16	528.54	579.17	1.3%	2.9%	-2.1%	-5.0%	9.6%
Oil	683.51	743.75	670.36	678.68	669.73	665.44	1.7%	-2.1%	0.6%	-1.3%	-0.6%
Natural gas	542.14	482.63	532.63	546.39	563.20	590.77	-2.3%	2.0%	1.3%	3.1%	4.9%
Nuclear	79.77	122.33	179.53	193.27	194.77	206.23	8.9%	8.0%	3.8%	0.8%	5.9%
Hydro & Wind	47.03	52.79	51.33	51.68	54.85	52.94	2.3%	-0.6%	0.3%	6.1%	-3.5%
Geothermal	5.39	9.91	18.14	19.76	20.34	19.85	13.0%	12.8%	4.4%	3.0%	-2.4%
Other	72.08	82.54	79.87	83.45	81.31	83.26	2.7%	-0.7%	2.2%	-2.6%	2.4%
Net Imports	243.63	67.54	211.36	197.99	247.77	273.61	-22.6%	25.6%	-3.2%	-25.1%	10.4%
Solids	-56.05	-64.94	-76.33	-71.23	-54.73	-54.23	3.0%	3.3%	-3.4%	-23.2%	0.9%
Oil	299.05	133.42	286.61	269.41	301.31	326.80	-14.9%	16.5%	-3.0%	11.8%	8.5%
Crude oil	264.67	109.30	267.89	261.99	303.55	319.37	-16.2%	19.6%	-1.1%	15.9%	5.2%
Oil products	34.38	24.13	18.72	7.42	-2.24	7.43	-6.8%	-5.0%	-37.0%	-	-
Natural gas	0.62	-0.98	1.07	-0.39	1.20	1.04	-	-	-	-	-12.6%
Electricity	0.01	0.04	0.01	0.19	-0.01	-0.01	39.9%	-20.9%	279.5%	-	11.5%
Gross Inland Consumption	2091.58	2075.83	2250.09	2305.79	2362.65	2408.55	-0.2%	1.6%	1.2%	2.5%	1.9%
Solids	399.93	454.54	484.32	482.63	503.30	503.01	2.6%	1.3%	-0.2%	4.3%	-0.1%
Oil	943.77	863.81	917.57	921.23	937.74	958.57	-1.7%	1.2%	0.2%	1.8%	2.2%
Natural gas	543.60	487.86	519.32	553.58	570.34	584.69	-2.1%	1.3%	3.2%	3.0%	2.5%
Other (1)	204.27	267.62	328.88	348.35	351.26	362.27	5.6%	4.2%	2.9%	0.8%	3.1%
Electricity Generation in TWh	2867.56	3173.90	3786.53	3922.68	4056.28	4154.07	2.1%	3.6%	1.8%	3.4%	2.4%
Nuclear	304.22	467.23	687.41	740.47	746.74	790.99	9.0%	8.0%	3.8%	0.8%	5.9%
Hydro & wind	546.82	613.88	596.85	600.91	637.75	615.53	2.3%	-0.6%	0.3%	6.1%	-3.5%
Thermal	2016.53	2092.78	2502.27	2581.30	2671.80	2747.54	0.7%	3.6%	1.6%	3.5%	2.8%
Generation Capacity in GWe	701.59	823.32	865.96	890.05	904.21	915.27	3.3%	1.0%	1.4%	1.6%	1.2%
Nuclear	62.36	92.73	113.86	113.67	115.17	115.17	8.3%	4.2%	-0.1%	1.3%	0.0%
Hydro & wind	130.48	147.29	159.64	165.73	168.84	171.38	2.5%	1.6%	1.9%	1.9%	1.5%
Thermal	508.75	583.30	592.46	610.65	620.20	628.72	2.8%	0.3%	1.5%	1.6%	1.4%
Average Load Factor in %	46.7	44.0	49.9	50.3	51.2	51.8	-1.2%	2.6%	0.4%	1.8%	1.2%
Fuel Inputs for Thermal Power Generation	475.52	497.02	584.82	616.66	676.49	694.63	0.9%	3.3%	2.7%	9.7%	2.7%
Solids	306.99	374.10	408.96	442.45	456.93	461.47	4.0%	1.8%	4.0%	3.3%	1.0%
Oil	72.67	38.12	45.64	41.55	43.06	43.97	-12.1%	3.7%	-4.6%	3.6%	2.1%
Gas	90.18	74.33	70.60	70.46	115.13	126.22	-3.8%	-1.0%	-0.1%	63.4%	9.6%
Geothermal	5.39	9.91	18.14	19.76	20.34	19.85	13.0%	12.8%	4.4%	3.0%	-2.4%
Other	0.28	0.55	41.50	42.45	41.03	43.13	14.2%	137.3%	1.1%	-3.3%	5.1%
Average Thermal Efficiency in %	36.5	36.2	36.8	36.0	33.9	34.0	-0.1%	0.3%	-1.1%	-5.7%	0.1%
Non-Energy Uses	113.05	103.59	130.17	128.16	128.95	136.01	-1.7%	4.7%	-0.8%	0.6%	5.5%
Total Final Energy Demand	1451.01	1424.08	1475.40	1487.52	1482.99	1511.42	-0.4%	0.7%	0.4%	-0.3%	1.9%
Solids	74.83	73.11	70.22	37.15	38.61	36.43	-0.5%	-0.8%	-27.3%	3.9%	-5.7%
Oil	714.41	686.01	713.41	713.28	725.06	745.09	-0.8%	0.8%	0.0%	1.7%	2.8%
Gas	383.76	348.83	380.33	404.38	378.12	381.51	-1.9%	1.7%	3.1%	-6.5%	0.9%
Electricity	205.19	231.95	270.89	284.17	293.66	300.72	2.5%	3.2%	2.4%	3.3%	2.4%
Heat	1.03	2.19	2.17	7.54	7.49	7.79	16.3%	-0.2%	86.2%	-0.6%	3.9%
Other	71.79	81.99	38.38	41.00	40.04	39.87	2.7%	-14.1%	3.4%	-2.3%	-0.4%
CO2 Emissions in Mt of CO2	5202.5	5149.9	5462.5	5501.8	5652.2	5764.0	-0.2%	1.2%	0.4%	2.7%	2.0%
Indicators											
Population (Million)	319.41	339.93	362.23	371.68	376.65	381.51	1.3%	1.3%	1.3%	1.3%	1.3%
GDP (bil. ECU 1985)	88.0	100.0	114.3	116.6	120.3	125.3	2.6%	2.7%	1.0%	3.2%	4.1%
Gross Inl Cons./GDP (toe/1985 MECU)	399.1	348.4	330.3	331.9	329.5	322.7	-2.7%	-1.1%	0.2%	-0.7%	-2.1%
Gross Inl Cons./Capita (toe/inhabitant)	6.5	6.1	6.2	6.2	6.3	6.3	-1.4%	0.3%	-0.1%	1.1%	0.6%
Electricity Generated/Capita (kWh/inhabitant)	8978	9337	10453	10554	10769	10889	0.8%	2.3%	0.5%	2.0%	1.1%
CO2 Emissions/Capita (t of CO2/inhabitant)	16.3	15.1	15.1	14.8	15.0	15.1	-1.4%	-0.1%	-0.9%	1.4%	0.7%
Import Dependency %	11.5	3.2	9.3	8.5	10.4	11.2	-22.4%	23.5%	-4.4%	22.4%	8.3%

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

CANADA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	207.36	241.08	274.15	293.46	315.10	337.73	3.1%	2.6%	3.5%	7.4%	7.2%
Solids	20.51	33.74	37.93	35.19	37.52	39.42	10.5%	2.4%	-3.7%	6.6%	5.1%
Oil	83.64	86.34	94.72	98.61	103.61	108.45	0.6%	1.9%	2.0%	5.1%	4.7%
Natural gas	63.62	70.22	88.13	102.32	112.49	123.93	2.0%	4.6%	7.7%	9.9%	10.2%
Nuclear	10.40	16.34	19.38	21.30	24.87	28.20	9.5%	3.5%	4.8%	16.8%	13.4%
Hydro & Wind	21.60	26.12	25.53	27.21	27.83	28.22	3.9%	-0.5%	3.2%	2.3%	1.4%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	7.59	8.32	8.45	8.84	8.78	9.53	1.9%	0.3%	2.2%	-0.7%	8.5%
Net Imports	-11.76	-50.54	-59.34	-84.33	-93.72	-105.65	33.9%	3.3%	19.2%	11.1%	12.7%
Solids	0.34	8.07	-11.74	-10.26	-13.80	-15.68	-	7.8%	-6.5%	34.5%	13.7%
Oil	8.61	-17.68	-15.05	-25.11	-26.75	-28.71	-	-3.2%	29.2%	6.5%	7.3%
Crude oil	12.36	-14.27	-10.68	-21.20	-21.48	-23.71	-	-5.6%	40.9%	1.3%	10.4%
Oil products	-3.75	-3.41	-4.38	-3.91	-5.27	-5.00	-1.9%	5.1%	-5.4%	34.8%	-5.1%
Natural gas	-18.37	-21.32	-32.51	-46.81	-50.81	-57.48	3.0%	8.8%	20.0%	8.5%	13.1%
Electricity	-2.34	-3.47	0.04	2.15	2.36	3.78	8.2%	59.2%	642.0%	9.4%	60.2%
Gross Inland Consumption	193.17	193.42	210.19	214.01	220.74	229.73	0.0%	1.7%	0.9%	3.1%	4.1%
Solids	21.22	25.84	24.48	26.15	24.08	24.85	4.0%	-1.1%	3.4%	-7.9%	3.2%
Oil	89.15	70.39	78.08	74.70	76.36	77.28	-4.6%	2.1%	-2.2%	2.2%	1.2%
Natural gas	45.55	49.89	54.31	57.96	61.18	65.45	1.8%	1.7%	3.3%	5.6%	7.0%
Other (1)	37.25	47.31	53.32	55.19	59.13	62.16	4.9%	2.4%	1.7%	7.1%	5.1%
Electricity Generation in TWh	373.27	458.98	481.95	520.78	527.55	554.13	4.2%	1.0%	4.0%	1.3%	5.0%
Nuclear	38.03	60.52	72.89	80.58	94.82	107.83	9.7%	3.8%	5.1%	17.7%	13.7%
Hydro & wind	251.15	303.67	296.86	316.40	323.65	328.09	3.9%	-0.5%	3.2%	2.3%	1.4%
Thermal	84.09	94.79	112.20	123.80	109.08	118.20	2.4%	3.4%	5.0%	-11.9%	8.4%
Generation Capacity in GWe	81.49	97.36	104.14	108.09	110.55	112.44	3.6%	1.4%	1.9%	2.3%	1.7%
Nuclear	5.87	11.16	13.54	13.99	15.44	15.44	13.7%	3.9%	1.6%	10.4%	0.0%
Hydro & wind	47.77	55.71	59.40	61.69	62.13	63.50	3.1%	1.3%	1.9%	0.7%	2.2%
Thermal	27.86	30.49	31.20	32.42	32.99	33.50	1.8%	0.5%	1.9%	1.8%	1.5%
Average Load Factor in %	52.3	53.8	52.8	55.0	54.5	56.3	0.6%	-0.4%	2.0%	-1.0%	3.3%
Fuel Inputs for Thermal Power Generation	20.08	22.81	25.64	26.24	25.54	26.50	2.6%	2.4%	4.9%	-9.6%	3.8%
Solids	14.94	19.81	19.98	21.69	19.67	20.51	5.8%	0.2%	4.2%	-9.3%	4.2%
Oil	3.19	1.61	3.51	3.53	2.47	2.24	-12.7%	16.8%	0.3%	-30.0%	-9.4%
Gas	1.77	1.20	1.85	2.63	3.08	3.40	-7.5%	9.0%	19.2%	17.1%	10.2%
Geothermal	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	0.17	0.19	0.31	0.39	0.31	0.35	1.8%	10.3%	12.4%	-20.6%	14.8%
Average Thermal Efficiency in %	36.0	35.7	37.6	37.7	36.7	38.4	-0.2%	1.0%	0.1%	-2.6%	4.4%
Non-Energy Uses	11.83	14.01	14.24	16.17	16.94	17.56	3.5%	0.3%	6.6%	4.7%	3.7%
Total Final Energy Demand	145.80	139.03	148.12	148.33	152.14	155.16	-0.9%	1.3%	0.1%	2.6%	2.0%
Solids	5.69	5.38	3.99	4.19	4.03	3.78	-1.1%	-5.8%	2.5%	-3.9%	-6.2%
Oil	71.69	55.53	59.74	56.83	58.02	59.67	-5.0%	1.5%	-2.5%	2.1%	2.8%
Gas	33.89	37.66	39.96	42.06	44.26	44.75	2.1%	1.2%	2.6%	5.2%	1.1%
Electricity	26.08	31.52	35.78	36.39	37.10	37.43	3.9%	2.6%	0.8%	2.0%	0.9%
Heat	1.03	0.81	0.50	0.40	0.26	0.36	-4.7%	-9.2%	-10.4%	-34.7%	36.5%
Other	7.42	8.13	8.15	8.45	8.47	9.18	1.9%	0.0%	1.8%	0.2%	8.3%
CO2 Emissions in Mt of CO2	412.7	386.2	411.5	416.0	415.1	426.7	-1.3%	1.3%	0.5%	-0.2%	2.8%
Indicators											
Population (Million)	24.59	25.94	27.79	28.45	28.78	29.12	1.1%	1.4%	1.2%	1.2%	1.2%
GDP (bil. ECU 1985)	86.7	100.0	115.2	113.8	116.3	121.7	2.9%	2.9%	-0.6%	2.3%	4.6%
Gross Inl Cons./GDP (toe/1985 MECU)	489.5	425.0	401.0	413.4	417.0	414.9	-2.8%	-1.2%	1.5%	0.9%	-0.5%
Gross Inl Cons./Capita (toe/inhabitant)	7.9	7.5	7.6	7.5	7.7	7.9	-1.0%	0.3%	-0.3%	1.9%	2.9%
Electricity Generated/Capita (kWh/inhabitant)	15177	17693	17342	18306	18329	19029	3.1%	-0.4%	2.7%	0.1%	3.8%
CO2 Emissions/Capita () of CO2/inhabitant)	16.8	14.9	14.8	14.6	14.4	14.7	-2.4%	-0.1%	-0.6%	-1.4%	1.6%
Import Dependency %	-6.0	-26.1	-28.1	-39.3	-42.3	-45.9	34.0%	1.5%	18.2%	7.8%	8.3%

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

MEXICO : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	145.01	190.46	194.15	204.74	207.88	208.61	5.6%	0.4%	2.7%	1.5%	0.4%
Solids	1.82	2.83	3.09	2.86	3.09	4.13	9.2%	1.8%	-3.8%	8.2%	33.7%
Oil	108.48	150.14	151.11	161.48	161.84	161.99	6.7%	0.1%	3.4%	0.2%	0.1%
Natural gas	23.95	26.46	25.29	24.68	26.57	27.29	2.0%	-0.9%	-1.2%	7.7%	2.7%
Nuclear	0.00	0.00	0.77	1.02	1.29	1.10	-	-	15.5%	25.8%	-14.6%
Hydro & Wind	1.45	2.26	2.02	2.25	2.26	1.72	9.2%	-2.2%	5.6%	0.2%	-23.6%
Geothermal	0.79	1.41	4.41	4.99	5.05	4.81	12.4%	25.6%	6.4%	1.3%	-4.7%
Other	8.53	7.37	7.47	7.47	7.78	7.56	-2.9%	0.3%	0.0%	4.1%	-2.7%
Net Imports	-46.51	-78.49	-67.01	-70.18	-72.23	-66.24	11.0%	-3.1%	2.3%	2.9%	-8.3%
Solids	0.62	0.44	0.24	0.53	0.52	0.57	-6.6%	-11.5%	48.3%	-1.6%	9.1%
Oil	-44.50	-78.98	-67.54	-73.04	-73.54	-67.71	12.2%	-3.1%	4.0%	0.7%	-7.9%
Crude oil	-43.31	-76.83	-67.83	-75.71	-74.20	-71.90	12.1%	-2.5%	5.6%	-2.0%	-3.1%
Oil products	-1.19	-2.15	0.29	2.67	0.66	4.19	12.6%	-	205.2%	-75.2%	532.8%
Natural gas	-2.69	0.05	0.40	2.42	0.88	0.97	-	49.7%	145.2%	-63.5%	10.0%
Electricity	0.05	0.01	-0.12	-0.09	-0.10	-0.07	-	67.8%	-12.4%	5.2%	-25.0%
Gross Inland Consumption	97.45	111.17	126.31	135.36	135.57	140.64	2.7%	2.6%	3.5%	0.2%	3.9%
Solids	2.48	3.04	3.18	3.56	4.04	4.80	4.1%	0.9%	5.7%	13.5%	16.9%
Oil	62.88	70.86	82.90	89.24	87.94	92.08	2.4%	3.2%	3.8%	-1.5%	4.7%
Natural gas	21.26	26.25	25.69	26.92	27.32	28.82	4.3%	-0.4%	2.4%	1.5%	5.5%
Other (1)	10.82	11.02	14.55	15.84	16.28	15.14	0.4%	5.7%	3.7%	4.0%	-7.0%
Electricity Generation in TWh	66.96	92.99	122.68	130.24	136.60	147.93	6.8%	5.7%	3.0%	4.9%	8.3%
Nuclear	0.00	0.00	2.94	3.92	4.93	4.24	-	-	15.5%	25.8%	-14.0%
Hydro & wind	16.89	26.24	23.48	26.17	26.24	20.05	9.2%	-2.2%	5.6%	0.2%	-23.6%
Thermal	50.08	66.75	96.27	100.15	105.44	123.64	5.9%	7.6%	2.0%	5.3%	17.3%
Generation Capacity in GWe	16.99	24.09	28.48	30.24	33.23	35.62	7.2%	3.4%	3.0%	9.9%	7.2%
Nuclear	0.00	0.00	0.68	0.68	0.68	0.68	-	-	0.0%	0.0%	0.0%
Hydro & wind	6.06	6.60	7.88	8.00	8.08	8.72	1.7%	3.6%	0.8%	0.9%	7.9%
Thermal	10.92	17.48	19.93	21.56	24.47	26.23	9.9%	2.7%	4.0%	13.5%	7.2%
Average Load Factor in %	45.0	44.1	49.2	49.2	46.9	47.4	0.4%	2.2%	0.0%	-4.5%	1.0%
Fuel Inputs for Thermal Power Generation	12.52	15.40	23.88	26.55	27.24	31.31	4.2%	9.2%	5.5%	2.6%	14.9%
Solids	0.00	0.64	1.34	1.85	2.34	2.91	-	15.8%	17.5%	26.9%	24.2%
Oil	8.90	11.39	14.70	15.97	16.18	19.28	5.1%	5.2%	4.2%	1.3%	19.2%
Gas	2.84	1.96	3.43	3.74	3.66	4.30	-7.2%	11.9%	4.4%	-2.1%	17.4%
Geothermal	0.79	1.41	4.41	4.99	5.05	4.81	12.4%	25.6%	6.4%	1.3%	-4.7%
Other	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Average Thermal Efficiency in %	34.4	37.3	34.7	32.4	33.3	34.0	1.6%	-1.4%	-3.3%	2.6%	2.0%
Non-Energy Uses	4.34	5.98	6.43	4.00	3.48	3.77	6.6%	1.4%	-21.1%	-13.1%	8.3%
Total Final Energy Demand	68.74	78.66	88.07	92.04	93.00	95.73	2.7%	2.3%	2.2%	1.0%	2.9%
Solids	1.61	1.92	1.62	1.51	1.52	1.69	3.7%	-3.4%	-3.3%	0.8%	10.8%
Oil	41.23	48.16	57.39	60.00	59.84	60.56	3.2%	3.6%	2.2%	-0.3%	1.2%
Gas	12.46	14.53	12.97	13.97	14.40	15.69	3.1%	-2.2%	3.8%	3.1%	9.0%
Electricity	4.92	6.68	8.62	9.09	9.48	10.24	6.3%	5.2%	2.7%	4.3%	8.0%
Heat	0.00	0.00	0.00	0.00	0.00	0.00	-	-	-	-	-
Other	8.53	7.37	7.47	7.47	7.76	7.55	-2.9%	0.3%	0.0%	3.9%	-2.7%
CO2 Emissions in Mt of CO2	208.3	253.3	289.7	307.3	311.9	331.2	4.0%	2.7%	3.0%	1.5%	6.2%
Indicators											
Population (Million)	67.06	75.53	84.51	88.06	90.03	91.86	2.4%	2.3%	2.1%	2.2%	2.0%
GDP (bil. ECU 1985)	90.7	100.0	107.1	114.4	114.9	119.2	2.0%	1.4%	3.3%	0.4%	3.8%
Gross Inl Cons./GDP (toe/1985 MECU)	444.5	459.9	488.0	489.6	488.4	488.9	0.7%	1.2%	0.2%	-0.3%	0.1%
Gross Inl Cons./Capita (toe/inhabitant)	1.5	1.5	1.5	1.5	1.5	1.5	0.3%	0.3%	1.4%	-2.0%	1.8%
Electricity Generated/Capita (kWh/inhabitant)	999	1231	1452	1479	1517	1610	4.3%	3.3%	0.9%	2.6%	6.1%
CO2 Emissions/Capita (t of CO2/inhabitant)	3.1	3.4	3.4	3.5	3.5	3.6	1.5%	0.4%	0.9%	-0.7%	4.0%
Import Dependency %	-47.6	-70.4	-52.9	-51.8	-53.3	-46.8	8.1%	-5.6%	-1.0%	2.8%	-12.1%

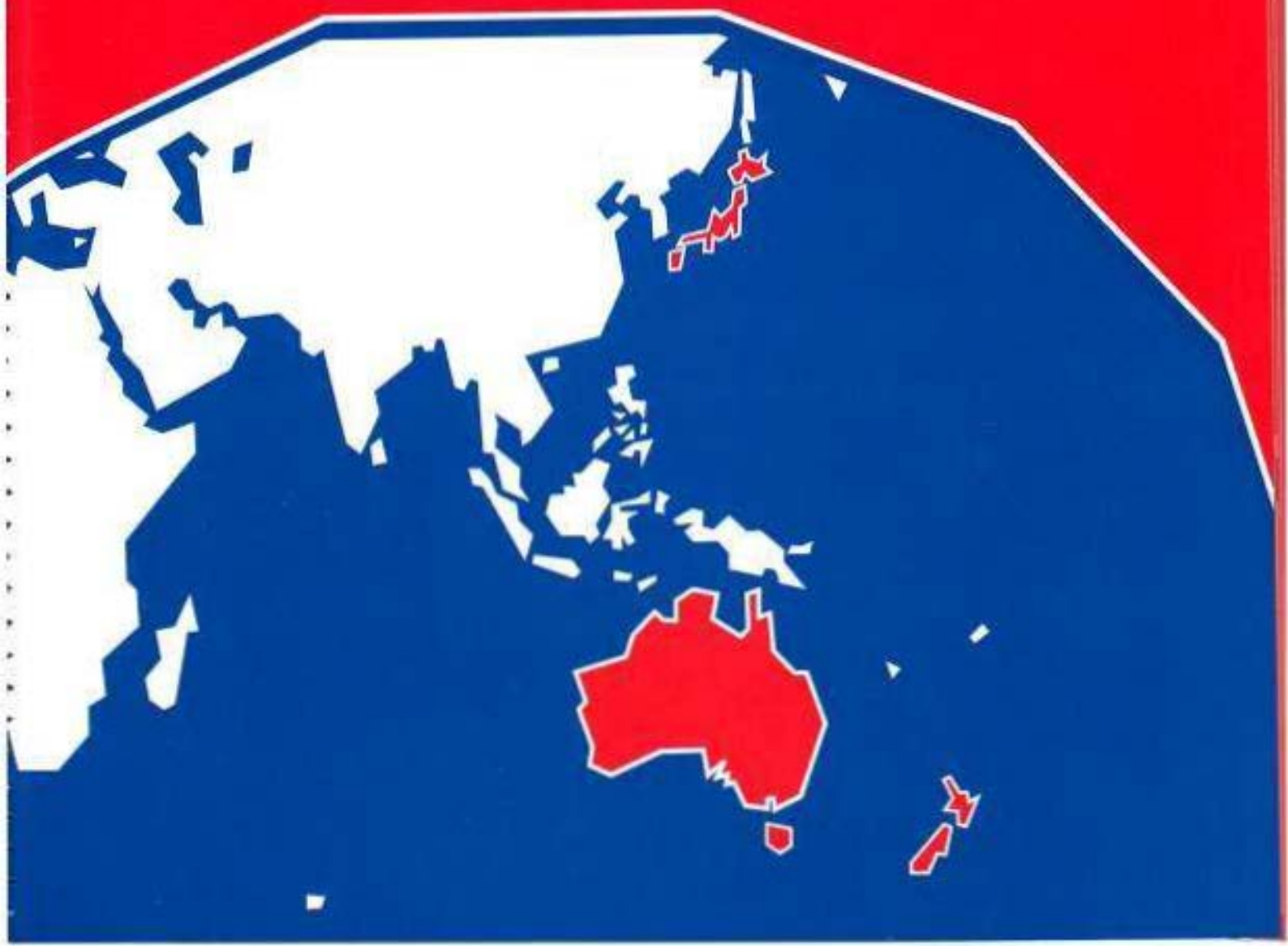
(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.

UNITED STATES : SUMMARY ENERGY BALANCE

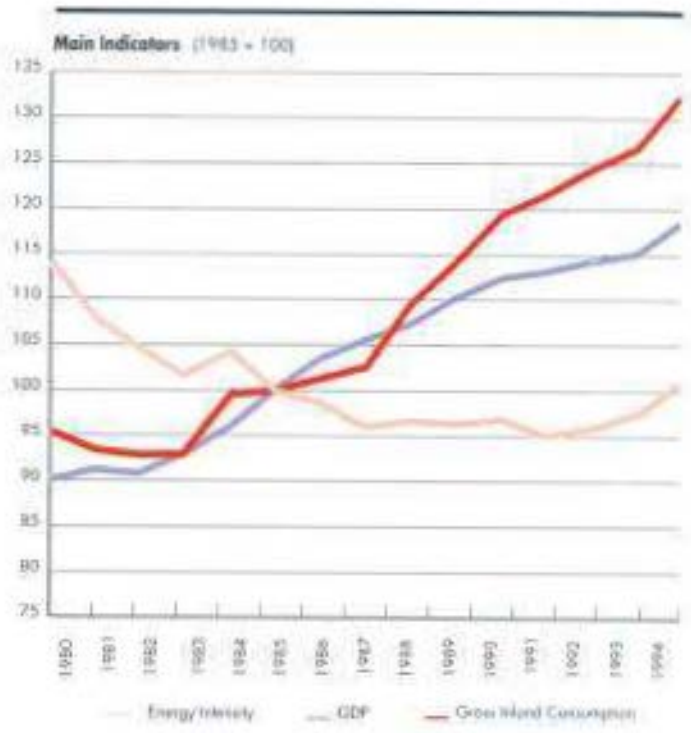
Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	1547.78	564.89	1643.72	1631.18	1589.76	1651.31	0.2%	1.0%	-0.4%	-2.5%	3.9%
Solids	447.92	465.90	539.15	518.12	487.93	535.62	0.8%	3.0%	-2.0%	-5.8%	9.8%
Oil	491.39	507.27	424.52	418.60	404.27	395.01	0.6%	-3.5%	-0.7%	-3.4%	-2.3%
Natural gas	454.56	385.95	419.21	419.39	424.15	439.56	-3.2%	1.7%	0.0%	1.1%	3.6%
Nuclear	69.37	105.99	159.38	170.95	168.61	176.93	8.8%	8.3%	3.6%	-1.4%	4.9%
Hydro & Wind	23.98	24.42	23.78	22.22	24.76	23.00	0.4%	-0.5%	-3.3%	11.4%	-7.1%
Geothermal	4.60	8.50	13.73	14.76	15.29	15.03	13.1%	10.1%	3.7%	3.5%	-1.7%
Other	55.96	66.86	63.95	67.14	64.76	66.17	3.6%	-0.9%	2.5%	-3.5%	2.2%
Net Imports	301.90	196.57	337.72	352.50	413.71	445.50	-8.2%	11.4%	2.2%	17.4%	7.7%
Solids	-57.01	-57.32	-64.83	-61.50	-41.45	-39.12	0.1%	2.5%	-2.6%	-32.6%	-5.6%
Oil	334.94	230.08	369.20	367.56	401.60	423.23	-7.2%	9.9%	-0.2%	9.3%	5.4%
Crude oil	295.62	200.39	346.39	358.89	399.23	414.99	-7.5%	11.6%	1.8%	11.2%	3.9%
Oil products	39.32	29.68	22.81	8.66	2.37	8.24	-5.5%	-5.1%	-38.6%	-72.7%	248.0%
Natural gas	21.68	20.29	33.18	44.01	51.12	57.55	-1.3%	10.3%	15.2%	16.2%	12.6%
Electricity	2.30	3.52	0.17	2.44	2.44	3.84	8.9%	-45.4%	276.4%	0.3%	57.0%
Gross Inland Consumption	1800.96	1771.23	1913.59	1956.42	2006.34	2037.98	-0.3%	1.6%	1.1%	2.6%	1.6%
Solids	376.23	425.66	456.66	452.92	475.19	473.37	2.5%	1.4%	-0.8%	4.9%	-0.4%
Oil	791.74	724.56	756.60	757.29	773.45	789.21	-1.8%	0.9%	0.0%	2.1%	2.0%
Natural gas	476.78	411.72	439.32	468.70	481.85	490.43	-2.9%	1.3%	3.3%	2.8%	1.8%
Other (1)	156.20	209.29	261.01	277.51	275.86	284.97	6.0%	4.5%	3.1%	-0.6%	3.3%
Electricity Generation in TWh	2427.32	2621.93	3181.90	3271.66	3392.13	3452.01	1.6%	3.9%	1.4%	3.7%	1.8%
Nuclear	266.18	406.71	611.59	655.97	646.99	678.92	8.8%	8.5%	3.6%	-1.4%	4.9%
Hydro & wind	278.78	283.96	273.15	254.37	283.30	262.77	0.4%	-0.8%	-3.5%	11.4%	-7.2%
Thermal	1882.36	1931.26	2297.16	2361.32	2461.84	2510.32	0.5%	3.5%	1.4%	4.3%	2.0%
Generation Capacity in GWe	603.11	701.88	733.33	751.72	760.43	767.21	3.1%	0.9%	1.2%	1.2%	0.9%
Nuclear	56.49	81.57	99.64	99.01	99.06	99.06	7.6%	4.1%	-0.3%	0.1%	0.0%
Hydro & wind	76.65	84.99	92.36	96.04	98.63	99.16	2.1%	1.7%	2.0%	2.7%	0.5%
Thermal	469.97	535.32	541.33	556.67	562.74	568.99	2.6%	0.2%	1.4%	1.1%	1.1%
Average Load Factor in %	45.9	42.6	49.5	49.7	50.9	51.4	-1.5%	3.0%	0.2%	2.5%	0.9%
Fuel Inputs for Thermal Power Generation	442.92	458.81	535.30	561.87	623.71	636.82	0.7%	3.1%	2.5%	11.0%	2.1%
Solids	292.05	353.65	387.62	418.91	434.91	438.05	3.9%	1.9%	4.0%	3.8%	0.7%
Oil	60.59	25.12	27.43	22.04	24.41	22.44	-16.1%	1.8%	-10.4%	10.7%	-8.1%
Gas	85.57	71.17	65.32	64.09	108.39	118.53	-3.6%	-1.7%	-0.9%	69.1%	9.4%
Geothermal	4.60	8.50	13.73	14.76	15.29	15.03	13.1%	10.1%	3.7%	3.5%	-1.7%
Other	0.11	0.36	41.19	42.06	40.72	42.78	26.6%	157.5%	1.1%	-3.2%	5.0%
Average Thermal Efficiency in %	36.5	36.2	36.9	36.1	33.9	33.9	-0.2%	0.4%	-1.0%	-6.1%	0.1%
Non-Energy Uses	96.88	83.60	109.51	107.99	108.54	114.68	-2.9%	5.5%	-0.7%	0.5%	5.7%
Total Final Energy Demand	1236.47	1206.40	1239.22	1247.14	1237.85	1260.54	-0.5%	0.5%	0.3%	-0.7%	1.8%
Solids	67.53	65.80	64.62	31.44	33.06	30.97	-0.5%	-0.4%	-30.2%	5.1%	-6.3%
Oil	601.48	582.32	596.28	596.44	607.20	624.87	-0.6%	0.5%	0.0%	1.8%	2.9%
Gas	337.41	296.64	327.40	348.35	319.46	321.07	-2.5%	2.0%	3.1%	-8.3%	0.5%
Electricity	174.19	193.76	226.49	238.69	247.08	253.06	2.2%	3.2%	2.7%	3.5%	2.4%
Heat	0.00	1.38	1.67	7.14	7.23	7.43	-	3.9%	106.5%	1.3%	2.8%
Other	55.85	66.49	22.76	25.08	23.81	23.14	3.6%	-19.3%	5.0%	-5.1%	-2.8%
CO2 Emissions in Mt of CO2	4581.5	4510.4	4761.3	4778.5	4925.2	5006.1	-0.3%	1.1%	0.2%	3.1%	1.6%
Indicators											
Population (Million)	227.76	238.47	249.92	255.17	257.84	260.53	0.9%	0.9%	1.0%	1.0%	1.0%
GDP (bil. ECU 1985)	87.9	100.0	114.6	116.9	120.9	125.9	2.6%	2.8%	1.0%	3.4%	4.1%
Gross Inl Cons./GDP (toe/1985 MECU)	389.2	336.6	317.4	317.9	315.3	307.7	-2.9%	-1.2%	0.1%	-0.8%	-2.4%
Gross Inl Cons./Capita (toe/inhabitant)	7.9	7.4	7.7	7.7	7.8	7.8	-1.2%	0.6%	0.1%	1.5%	0.5%
Electricity Generated/Capita (kWh/inhabitant)	10657	10995	12731	12821	13156	13250	0.6%	3.0%	0.4%	2.6%	0.7%
CO2 Emissions/Capita (t of CO2/inhabitant)	20.1	18.9	19.1	18.7	19.1	19.2	-1.2%	0.1%	-0.9%	2.0%	0.6%
Import Dependency %	16.5	11.0	17.4	17.7	20.3	21.6	-7.8%	9.6%	1.0%	14.7%	6.0%

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

PART VI OECD PACIFIC

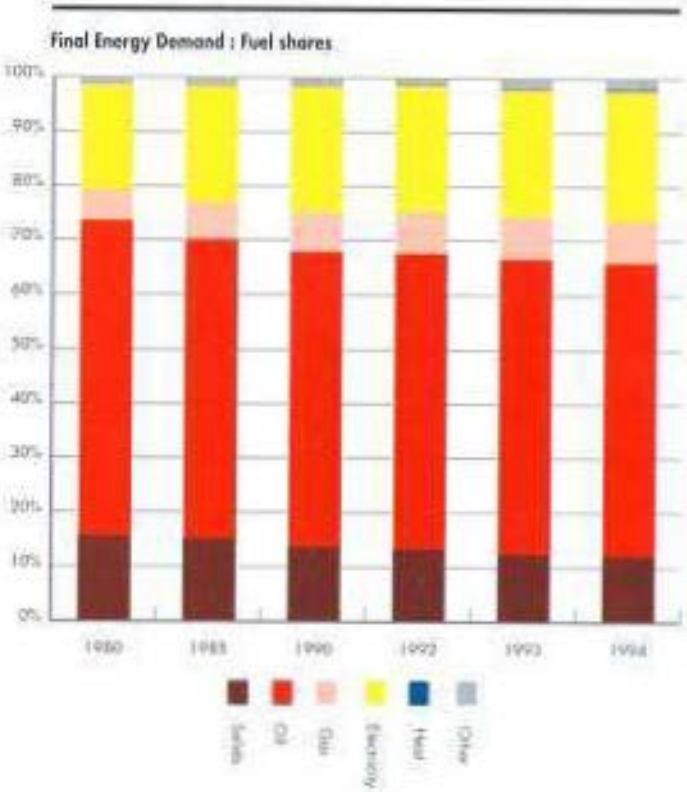


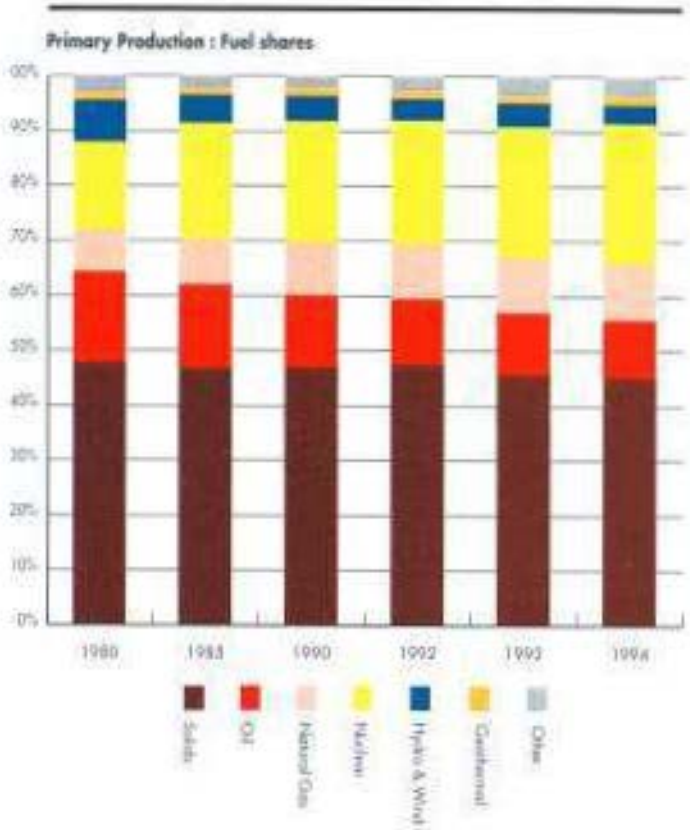
This region comprises the three OECD countries of the Pacific: Australia, Japan and New Zealand. Given the size of its economy, population and energy needs, Japan dominates the integrated energy developments in this region. In 1994, Japan accounted for 85% of the population and contributed to 88% to the GDP of the region.



Final energy demand between 1980 and 1994 steadily increased by about 2.1% per year on average. This final energy demand is mainly covered by oil (54% of total 1994 consumption) and electricity (24% of the total). Both energy vectors increased their absolute contribution to the final demand significantly over the period, by 1.6% per year for oil and 3.7% for electricity. The solid fuel consumption remained globally constant over the period (-0.4% decrease per year over the period) covering 1994, with 45 Mtoe, about 12% of the final consumption. Gas demand practically doubled between 1980 and 1994, covering in 1994 about 8% of the final demand. As already stated, these figures are largely dominated by the Japanese market, which accounted, in 1994, for 81% of the final energy demand in the region.

Gross inland consumption in the OECD Pacific region showed a steady increase over the period by almost 2% per year. However, this trend has not been homogenous over time. The period 1985 to 1990 was one of fast growth (3.6% per year), corresponding to a period of low oil prices on the international market. Between 1991 and 1993, the growth fell to 2.0%. 1994 again saw a vigorous increase by 4.5% of the gross inland consumption. This growth has not been spread equally over all the primary fuels. Solid fuel demand (20% of gross consumption in 1994 as in 1980) increased by 36% over the period. Natural gas demand (12% of total in 1994 compared to 7% in 1980) increased by a factor of two. Oil (52% of total in 1994 against 64% in 1980), almost totally imported into the region, saw its gross consumption following closely the international energy conjuncture: a decrease by 2.8% per year between 1980 and 1985; an increase by 4.2% between 1985 and 1990; a moderate increase of 1.2% in 1992, a decrease by 1% during 1993 and a vigorous increase of 4.8% in 1994. The contribution of non-fossil fuels increased from 9% in 1980 to 16% in 1994 in relation to the expansion of the Japanese



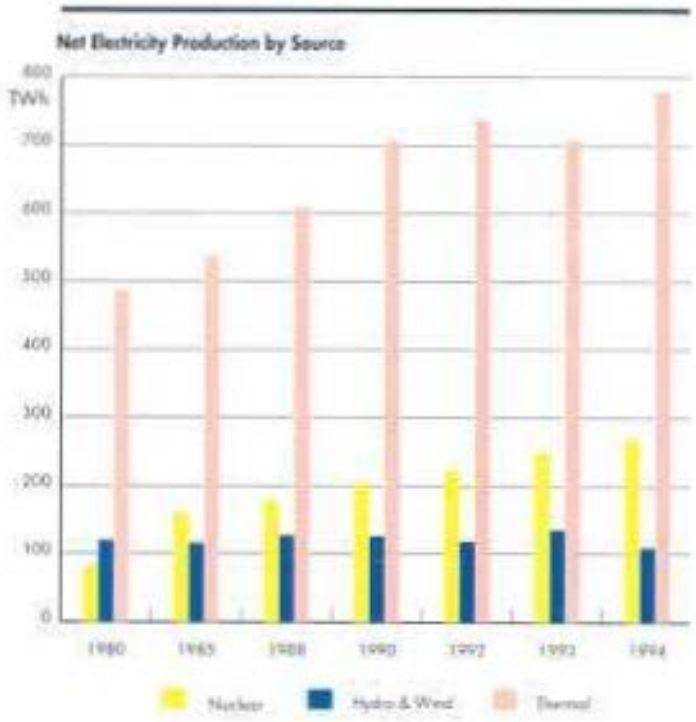


Energy production has been steadily increasing over the period, doubling its 1980 value to reach 276 Mtoe in 1994. In 1994, solid fuels accounted for 45% of total (48% in 1980), oil accounted for 10% (16% in 1980) and natural gas for 10% also (8% in 1980). Nuclear energy (developed exclusively in Japan), like in other parts of the world, was mainly developed between 1980 and 1985 (growing almost by 14% per year on average). But, unlike what happened in other regions, nuclear energy production continued to increase, by 6% yearly until 1994 in relation to capacity expansion. In 1990 nuclear production contributed to primary production at the same level as oil and natural gas taken together. Currently, after a 12% and 8% increase during the two last years, it accounts for 25% of the total primary energy production (16% in 1980). Biomass almost doubled its contribution over the period. More precisely, production climbed by 88% between 1990 and 1993 and remained at this level in 1994 (3.6% of total). Geothermal, almost stabilised between 1990 and 1994, saw a 23% increase during 1994, leading to a share of 1.5% in energy production for 1994. Hydro has been practically constant over the period at about 10 Mtoe (3.4% of total in 1994).

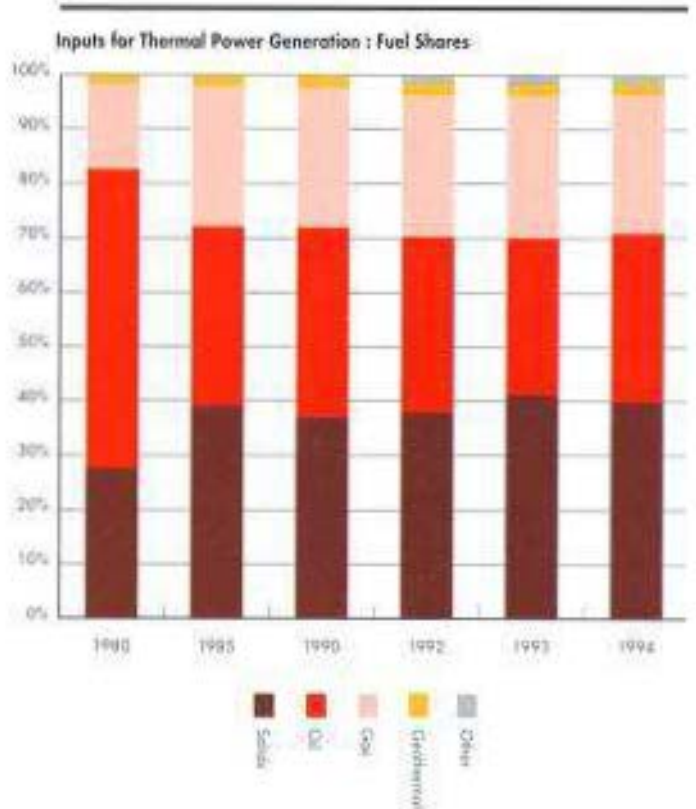
The OECD Pacific region is a **net importer** of energy. But this is due to the fact that Japan has almost no domestic energy resources and that it imported more energy (403 Mtoe in 1994, of which 279 Mtoe of oil from outside the region) than the quantities of energy that Australia and New Zealand could export. In fact, Australia was, in 1992, the largest coal exporter in the world. Australia increased its coal exports from 28.5 Mtoe in 1980 to 83.6 Mtoe in 1994 (representing 70% of its fossil fuel production). Since 1990, Australia has exported natural gas to Japan. The degree of **import dependency** of the region has been progressively reduced from 70% in 1980 to 54% in 1994. However the situation changes dramatically from country to country: in 1994, the import dependency of Japan was 82.5%, for only 17% in New Zealand, while Australia remained largely a net exporter of energy.

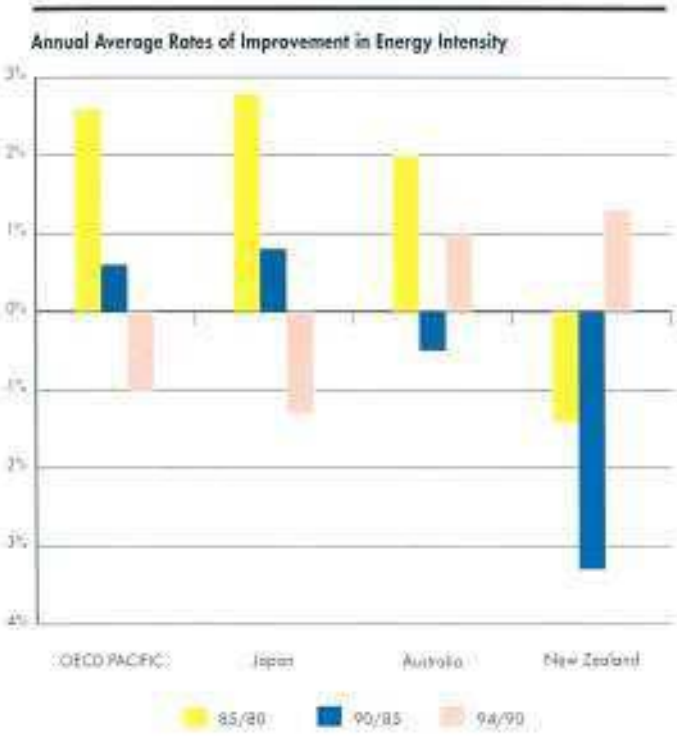
Electricity generation in the region as a whole is based mainly on thermal units (67% of total in 1994). Nuclear energy became more important than hydro in the early 80s and both accounted, in 1994, for 23% and 9% of the total generation respectively. Total generation has increased steadily over the period by 3.8% per year on average. Incremental production between 1980 and 1994 has been covered by thermal units (62%) and nuclear (40%); the contribution of hydro being affected by very dry weather conditions in 1994.

The **installed capacity** reached 264 GWe in 1994 after an increase by 50% since 1980. In 1994 thermal units represented 65% of total capacity for 15% for nuclear and 20% for hydro. The average load factor, remained quite stable between 1980 and 1985, improved in the second half of the 80s and has remained quite constant since then at about 50%.



The sharp increase in **fuel inputs** for thermal power stations has been mainly supported by gas, and solid fuels, covering 25% and 40% of fuel consumption respectively in 1994. Oil consumption dropped in the beginning of the 80s to reach, in 1985, 60% of its 1980 value. It increased again in the second half of the 1980s to reach 80% of its initial value by the end of the decade. It dropped again in 1993 by 13 but recovered in 1994 by 18% over the last year, covering 31% of the total fuel inputs in 1994. Geothermal and biomass accounted, together, for 3.7% of the total energy input in thermal power stations in 1994, corresponding however to an increase by a factor of three in absolute terms over the period. The strong penetration of natural gas, burned in modern combined cycle power stations, is one of the elements behind the improvement of the average thermal efficiency of thermal power stations, that ranges around 42% since 1990, while it reached about 37.5% in the early eighties.





Energy intensity exhibited a continuous improvement of 1.6% on average per year over the region between 1980 and 1990. It remained quite stable at this level between 1990 and 1993 but then increased by 3.4%. This reflected mainly the Japanese situation where energy intensity increased by 1.2% in 1993 and 4.6% in 1994. Australia improved its performance in the first half of the 80s, and has been stable since then. New-Zealand for its part saw its intensity grow between 1980 and 1992 by 2.3% in relation to its industrialisation but declined by 5.1% in 1993 and by 4.1% in 1994. When comparing energy intensities with the European Union and the United States, Japan has by far the lowest ratio in 1994 (32% below that of the United States and 26% below the European average).

Average **energy consumption per capita** has increased in the period and, in 1994, with 3.9 Kgoe/inhabitant, was somewhat above that of the European Union (9%), but still about 50% below the United States.

CO2 emissions increased in absolute figures by 38% over the period, reaching 1380 Mt CO2/year in 1994. In Japan, it increased sharply between 1985 and 1992 by 2 to 3.5% per year; it slowed down by -0.8% during 1993, to increase again by 5.4% during 1994. In Australia and New-Zealand, the CO2 emissions are stable, in absolute figures, since 1992. CO2 emissions per capita, that ranged from around 3.2 t of CO2/inhabitant in the early eighties, climbed by 3.7% per year during the period 1985-1990, where they reached the level 3.7. Since then, they continued to climb by about 1.5% during 1992 and 1993, and by 4% during 1994 to reach 4.1 t CO2/ inhabitant. This figure reflects for the most part the situation on the Japanese market (3.9 t CO2/inhabitant). The Japanese level of CO2 emissions per capita are less than half the corresponding US figures.

OECD PACIFIC : MAIN INDICATORS

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
OECD PACIFIC	254.0	222.7	215.7	213.4	217.0	224.3	-2.6%	-0.6%	-0.5%	1.7%	3.4%
Australia	372.7	336.9	346.0	335.9	338.8	332.3	-2.0%	0.5%	-1.5%	0.9%	-1.9%
Japan	236.9	205.7	197.3	196.0	199.2	207.9	-2.8%	-0.8%	-0.3%	1.6%	4.3%
New Zealand	357.3	383.5	450.6	468.9	445.7	427.5	1.4%	3.3%	2.0%	-5.0%	-4.1%
Gross Inland Consumption per Capita (toe/inhabitant)											
OECD PACIFIC	3.2	3.2	3.7	3.8	3.9	4.1	0.2%	3.0%	1.6%	1.6%	4.0%
Australia	4.8	4.7	5.2	5.1	5.3	5.3	-0.4%	1.9%	-1.1%	3.7%	1.6%
Japan	3.0	3.0	3.5	3.6	3.7	3.9	0.2%	3.2%	2.1%	1.2%	4.6%
New Zealand	3.0	3.5	4.2	4.3	4.2	4.3	3.4%	3.5%	1.7%	-1.1%	0.4%
Energy Dependency (%)											
OECD PACIFIC	69.6	56.6	56.9	53.9	52.6	54.0	-4.1%	0.1%	-2.7%	-2.5%	2.7%
Australia	-24.2	-72.3	-73.4	-91.4	-87.9	-85.0	24.5%	0.3%	11.6%	-3.9%	-3.3%
Japan	89.0	83.7	84.5	83.3	81.9	82.5	-1.2%	0.2%	-0.7%	-1.7%	0.7%
New Zealand	42.9	23.5	15.5	14.0	14.0	16.8	-11.3%	-8.0%	-5.1%	-0.1%	19.9%
Share of Total Gross Inland Consumption (%)											
Australia	16.5	16.5	16.4	15.8	16.3	16.1	0.0%	-0.2%	-1.7%	3.1%	-1.4%
Japan	81.3	80.9	81.0	81.5	81.1	81.4	-0.1%	0.0%	0.3%	-0.5%	0.4%
New Zealand	2.2	2.5	2.6	2.7	2.6	2.5	3.3%	0.6%	1.0%	-1.8%	-2.7%
CO2 Emissions (Million tonnes of CO2)											
OECD PACIFIC	1060.0	1086.4	1276.2	1323.6	1318.1	1380.2	0.5%	3.3%	1.8%	-0.4%	4.7%
Australia	202.8	218.4	257.3	263.8	268.3	274.8	1.5%	3.3%	1.3%	1.7%	2.4%
Japan	840.1	848.2	996.6	1035.1	1026.1	1081.5	0.2%	3.3%	1.9%	-0.9%	5.4%
New Zealand	17.1	19.8	22.4	24.7	23.7	23.9	2.9%	2.5%	5.1%	-4.2%	0.7%
CO2 Emissions (t of CO2/inhabitant)											
OECD PACIFIC	7.9	7.8	8.9	9.1	9.1	9.4	-0.3%	2.7%	1.4%	-0.8%	4.3%
Australia	13.9	14.0	15.2	15.2	15.2	15.4	0.1%	1.8%	-0.1%	0.3%	1.0%
Japan	7.2	7.0	8.1	8.3	8.2	8.7	-0.5%	2.8%	1.2%	-1.1%	5.1%
New Zealand	5.5	6.1	6.7	7.2	6.8	6.8	2.1%	1.8%	3.8%	-5.3%	-0.5%

OECD PACIFIC : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	134.9	196.4	238.4	258.9	272.3	276.1	7.8%	4.0%	4.2%	5.2%	1.4%
Solids	64.6	92.1	112.3	123.3	124.7	125.2	7.3%	4.0%	4.8%	1.1%	0.4%
Oil	22.2	29.7	31.1	30.8	30.6	28.8	6.0%	0.9%	-0.4%	-0.8%	-5.8%
Natural gas	10.3	16.2	22.8	25.8	27.2	28.5	9.5%	7.1%	6.3%	5.3%	4.8%
Nuclear	21.5	41.6	52.7	58.2	65.0	70.1	14.1%	4.9%	5.1%	11.6%	8.0%
Hydro & Wind	10.4	10.1	11.0	10.3	11.7	9.5	0.6%	1.7%	-3.3%	14.3%	-19.2%
Geothermal	1.8	2.3	3.4	3.5	3.4	4.2	4.8%	8.5%	1.4%	-3.0%	23.1%
Other	4.2	4.5	5.2	7.1	9.8	9.9	1.7%	2.9%	16.8%	37.5%	0.9%
Net Imports	306.1	257.6	307.5	303.2	302.1	324.0	-3.4%	3.6%	-0.7%	-0.4%	7.3%
Solids	19.0	8.5	1.0	-9.6	-11.7	-9.6	-14.9%	-35.0%		21.6%	-18.1%
Oil	267.6	216.2	267.2	272.3	273.9	291.2	-4.2%	4.3%	1.0%	0.6%	6.3%
Crude oil	236.2	174.5	205.3	226.4	232.7	247.7	-5.9%	3.3%	5.0%	2.8%	6.5%
Oil products	31.4	41.7	61.8	45.9	41.2	43.5	5.8%	8.2%	-13.9%	-10.2%	5.6%
Natural gas	19.5	33.0	39.3	40.6	39.9	42.4	11.0%	3.6%	1.6%	-1.6%	6.2%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0					
Gross Inland Consumption	426.7	447.4	534.1	555.8	566.9	592.2	0.9%	3.6%	2.0%	2.0%	4.5%
Solids	87.9	104.2	110.0	113.3	115.5	119.2	3.5%	1.1%	1.5%	1.9%	3.2%
Oil	271.2	235.5	289.9	297.4	294.5	308.6	-2.8%	4.2%	1.3%	-1.0%	4.8%
Natural gas	29.9	49.2	62.0	66.1	67.1	70.8	10.5%	4.7%	3.3%	1.5%	5.5%
Other (1)	37.8	58.4	72.3	79.0	89.8	93.6	9.1%	4.3%	4.6%	13.7%	4.2%
Electricity Generation in TWh	690.0	814.0	1036.7	1078.7	1093.4	1158.0	3.4%	5.0%	2.0%	1.4%	5.9%
Nuclear	82.6	159.6	202.3	223.3	249.3	269.1	14.1%	4.9%	5.1%	11.6%	8.0%
Hydro & wind	120.2	116.3	126.8	118.5	135.6	109.5	-0.7%	1.7%	-3.3%	14.4%	-19.3%
Thermal	487.3	538.1	707.7	736.9	708.5	779.4	2.0%	5.6%	2.0%	-3.9%	10.0%
Generation Capacity in GWe	175.3	211.0	237.9	248.3	257.2	263.6	3.8%	2.4%	2.2%	3.6%	2.5%
Nuclear	15.7	24.7	31.6	34.6	38.5	38.5	9.5%	5.1%	4.5%	11.4%	0.0%
Hydro & wind	39.9	45.9	49.7	51.6	52.0	53.3	2.9%	1.6%	1.8%	0.8%	2.6%
Thermal	119.7	140.5	156.6	162.2	166.7	171.7	3.2%	2.2%	1.8%	2.8%	3.0%
Average Load Factor in %	44.9	44.0	49.7	49.6	48.5	50.2	-0.4%	2.5%	-0.2%	-2.1%	3.4%
Fuel Inputs for Thermal Power Generation	111.8	113.9	141.9	148.7	145.7	159.3	0.4%	4.5%	2.4%	-2.0%	9.4%
Solids	30.8	44.7	52.7	56.6	60.2	63.6	7.7%	3.3%	3.6%	6.5%	5.6%
Oil	61.5	37.4	49.4	47.9	41.8	49.4	-9.4%	5.7%	-1.5%	-12.8%	18.1%
Gas	17.5	29.3	36.4	38.5	37.9	40.5	10.8%	4.4%	2.9%	-1.6%	6.8%
Geothermal	1.8	2.3	3.4	3.5	3.4	3.6	4.8%	8.5%	1.4%	-3.0%	5.7%
Other	0.1	0.1	0.0	2.2	2.4	2.3	4.5%	-41.2%	1611.8%	8.1%	-1.4%
Average Thermal Efficiency in %	37.5	40.6	42.9	42.6	41.8	42.1	1.6%	1.1%	-0.3%	-1.8%	0.6%
Non-Energy Uses	32.1	31.6	41.4	43.4	43.2	45.7	-0.3%	5.5%	2.4%	-0.4%	5.9%
Total Final Energy Demand	272.5	286.2	337.9	351.4	354.8	366.6	1.0%	3.4%	2.0%	1.0%	3.3%
Solids	42.7	43.8	46.8	47.4	44.8	45.0	0.5%	1.3%	0.7%	-5.5%	0.4%
Oil	157.9	157.0	182.8	190.3	191.6	196.8	-0.1%	3.1%	2.0%	0.6%	2.7%
Gas	15.1	19.3	24.2	26.7	27.8	28.7	5.1%	4.6%	5.0%	4.3%	3.1%
Electricity	52.6	61.5	78.7	81.8	82.5	87.4	3.2%	5.1%	1.9%	0.9%	5.9%
Heat	0.1	0.1	0.2	0.3	0.3	0.9	6.2%	7.9%	12.7%	10.8%	229.4%
Other	4.1	4.4	5.3	5.0	7.8	7.7	1.8%	3.5%	-2.9%	56.5%	-0.1%
CO2 Emissions in Mt of CO2	1060.0	1086.4	1276.2	1323.6	1318.1	1380.2	0.5%	3.3%	1.8%	-0.4%	4.7%
Indicators											
Population (Million)	134.5	139.7	143.8	145.0	145.6	146.2	0.8%	0.6%	0.4%	0.4%	0.4%
GDP (index 1985=100)	83.6	100.0	123.3	129.7	130.1	131.4	3.6%	4.3%	2.6%	0.3%	1.0%
Gross Inl Cons /GDP (toe/1985 MECU)	254.0	222.7	215.7	213.4	217.0	224.3	-2.6%	-0.6%	-0.5%	1.7%	3.4%
Gross Inl Cons /Capita (toe/inhabitant)	3.2	3.2	3.7	3.8	3.9	4.1	0.2%	3.0%	1.6%	1.6%	4.0%
Electricity Generated/Capita (kWh/inhabitant)	5131	5825	7210	7442	7512	7923	2.6%	4.4%	1.6%	0.9%	5.5%
CO2 Emissions/Capita (t of CO2/inhabitant)	7.9	7.8	8.9	9.1	9.1	9.4	-0.3%	2.7%	1.4%	-0.8%	4.3%
Import Dependency %	69.6	56.6	56.9	53.9	52.6	54.0	-4.1%	0.1%	-2.7%	-2.5%	2.7%

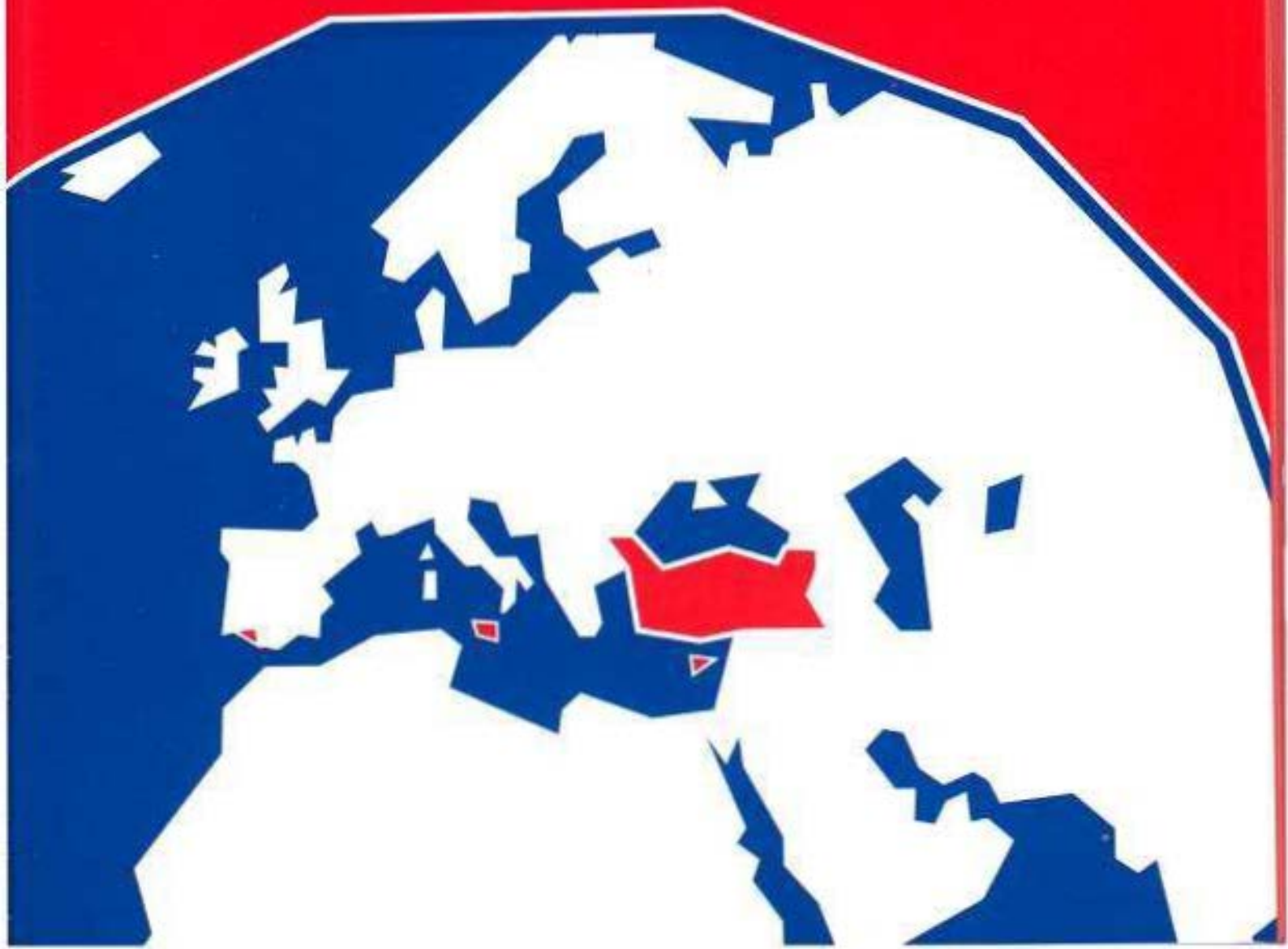
(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.

JAPAN : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	43.2	62.2	68.9	76.1	85.9	89.3	7.5%	2.1%	5.1%	12.9%	3.9%
Solids	10.9	9.6	4.6	4.2	4.0	3.8	-2.5%	-13.8%	-4.3%	-5.0%	-3.9%
Oil	0.5	0.6	0.6	1.0	0.9	0.8	3.9%	0.5%	22.0%	-10.7%	-4.0%
Natural gas	1.9	2.0	1.8	1.9	1.9	2.0	0.3%	-1.7%	2.8%	2.1%	3.1%
Nuclear	21.5	41.6	52.7	58.2	65.0	70.1	14.1%	4.9%	5.1%	11.6%	8.0%
Hydro & Wind	7.6	7.1	7.7	7.1	8.2	5.8	-1.2%	1.5%	-3.8%	15.8%	-29.6%
Geothermal	0.8	1.3	1.5	1.5	1.5	2.4	10.7%	3.1%	1.3%	-0.6%	54.7%
Other	0.0	0.0	0.0	2.2	4.4	4.3	-	-	-	100.8%	-1.8%
Net Imports	319.3	308.8	370.0	382.1	381.9	403.0	-0.7%	3.7%	1.6%	-0.1%	5.5%
Solids	47.5	63.4	68.9	70.9	72.3	74.8	5.9%	1.7%	1.4%	2.0%	3.4%
Oil	252.3	212.5	259.5	265.6	263.7	279.0	-3.4%	4.1%	1.2%	-0.7%	5.8%
Crude oil	223.0	172.2	198.5	218.0	221.4	235.3	-5.0%	2.9%	4.8%	1.6%	6.2%
Oil products	29.2	40.4	60.9	47.6	42.3	43.7	6.7%	8.6%	-11.7%	-11.1%	3.4%
Natural gas	19.5	33.0	41.7	45.7	45.9	49.3	11.0%	4.8%	4.7%	0.5%	7.5%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Gross Inland Consumption	347.1	362.0	432.6	453.1	459.6	481.9	0.8%	3.6%	2.3%	1.4%	4.8%
Solids	59.6	73.0	73.9	75.2	76.8	78.8	4.1%	0.3%	0.9%	2.2%	2.5%
Oil	236.2	204.1	253.5	261.6	255.9	269.3	-2.9%	4.4%	1.6%	-2.2%	5.3%
Natural gas	21.5	35.0	43.3	47.3	47.8	51.2	10.3%	4.3%	4.5%	1.1%	7.1%
Other (1)	29.9	50.0	61.9	69.0	79.1	82.6	10.8%	4.4%	5.6%	14.6%	4.4%
Electricity Generation in TWh	572.5	666.9	850.7	888.2	896.8	955.9	3.1%	5.0%	2.2%	1.0%	6.6%
Nuclear	82.6	159.6	202.3	223.3	249.3	269.1	14.1%	4.9%	5.1%	11.6%	8.0%
Hydro & wind	88.3	82.9	89.3	82.6	95.6	67.3	-1.2%	1.5%	-3.8%	15.8%	-29.6%
Thermal	401.6	424.4	559.2	582.4	552.0	619.5	1.1%	5.7%	2.1%	-5.2%	12.2%
Generation Capacity in GWe	143.7	169.4	194.7	205.1	212.9	218.7	3.3%	2.8%	2.6%	3.8%	2.7%
Nuclear	15.7	24.7	31.6	34.6	38.5	38.5	9.5%	5.1%	4.5%	11.4%	0.0%
Hydro & wind	29.8	34.3	37.8	39.5	40.0	41.2	2.9%	2.0%	2.2%	1.1%	3.1%
Thermal	98.3	110.3	125.3	131.0	134.4	139.0	2.3%	2.6%	2.3%	2.6%	3.4%
Average Load Factor in %	45.5	45.0	49.9	49.4	48.1	49.9	-0.2%	2.1%	-0.4%	-2.7%	3.8%
Fuel Inputs for Thermal Power Generation	87.2	84.3	105.5	110.8	107.9	121.0	-0.7%	4.6%	2.5%	-2.7%	12.2%
Solids	10.5	20.8	23.8	25.7	29.3	32.1	14.7%	2.6%	4.1%	13.8%	9.5%
Oil	60.3	36.5	48.6	47.3	41.2	48.7	-9.6%	5.9%	-1.3%	-12.9%	18.3%
Gas	15.6	25.6	31.7	34.1	33.5	36.1	10.5%	4.3%	3.7%	-1.7%	7.9%
Geothermal	0.8	1.3	1.5	1.5	1.5	1.8	10.7%	3.1%	1.3%	-0.6%	16.2%
Other	0.0	0.0	0.0	2.2	2.4	2.3	-	-	-	8.1%	-1.3%
Average Thermal Efficiency in %	39.6	43.3	45.6	45.2	44.0	44.0	1.8%	1.0%	-0.4%	-2.6%	0.0%
Non-Energy Uses	29.1	28.2	37.0	38.7	38.2	40.3	-0.6%	5.6%	2.4%	-1.3%	5.3%
Total Final Energy Demand	219.4	230.3	272.2	284.9	286.4	296.3	1.0%	3.4%	2.3%	0.5%	3.4%
Solids	36.2	37.7	40.4	40.9	38.3	38.4	0.8%	1.4%	0.6%	-6.4%	0.4%
Oil	129.2	129.7	151.6	158.9	159.5	163.6	0.1%	3.2%	2.4%	0.4%	2.6%
Gas	9.7	11.8	14.8	16.9	17.8	18.3	4.0%	4.6%	6.8%	5.3%	3.2%
Electricity	44.1	51.0	65.2	68.0	68.2	72.8	2.9%	5.1%	2.1%	0.4%	6.7%
Heat	0.1	0.1	0.2	0.3	0.3	0.9	6.2%	7.9%	12.7%	10.8%	229.4%
Other	0.0	0.0	0.0	0.0	2.4	2.2	-	-	-	-	-7.1%
CO2 Emissions in Mt of CO2	840.1	848.2	996.6	1035.1	1026.1	1081.5	0.2%	3.3%	1.9%	-0.9%	5.4%
Indicators											
Population (Million)	116.8	120.8	123.5	124.2	124.5	124.8	0.7%	0.4%	0.3%	0.3%	0.3%
GDP (index 1985=100)	83.3	100.0	124.6	131.3	131.1	131.7	3.7%	4.5%	2.7%	-0.2%	0.5%
Gross Inl Cons./GDP (toe/1985 MECU)	236.9	205.7	197.3	196.0	199.2	207.9	-2.8%	-0.8%	-0.3%	1.6%	4.3%
Gross Inl Cons./Capita (toe/inhabitant)	3.0	3.0	3.5	3.6	3.7	3.9	0.2%	3.2%	2.1%	1.2%	4.6%
Electricity Generated/Capita (kWh/inhabitant)	4902	5519	6887	7154	7205	7661	2.4%	4.5%	1.9%	0.7%	6.3%
CO2 Emissions/Capita (t of CO2/inhabitant)	7.2	7.0	8.1	8.3	8.2	8.7	-0.5%	2.8%	1.7%	-1.1%	5.1%
Import Dependency %	89.0	83.7	84.5	83.3	81.9	82.5	-1.2%	0.2%	-0.7%	-1.7%	0.7%

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

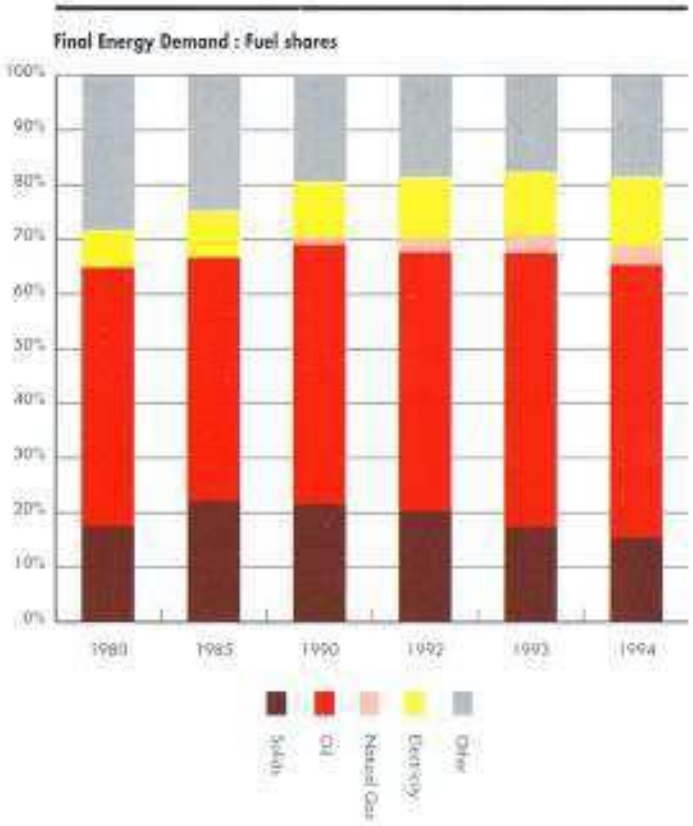
PART VII MEDITERRANEAN

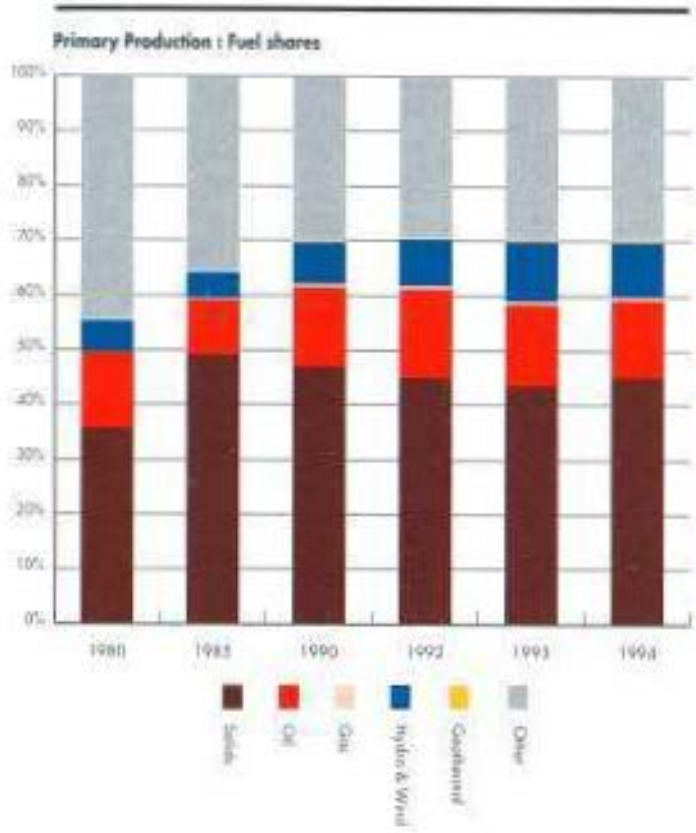


This region comprises Turkey plus three small countries: Cyprus, Gibraltar and Malta. Given the size of its economy and population, Turkey dominates energy developments in this region. Indeed, in 1994, it accounted for 98% of the population and 93% of the GDP. To illustrate the importance of the Mediterranean basin for the European Union, a global energy balance is also presented including all the concerned countries with the exception of the European ones (former Yugoslavia and Albania included).

Final energy demand has steadily increased since between 1980 and 1993 at about 4% per year on average. But 1994 was marked by a slowdown of 4%in line with the deep economic recession in Turkey. Solid fuel consumption increased at an annual average of almost 6.2% until 1991, followed by a continuous decline to achieve in 1994 a level below that of 1985. Oil demand, marked by a sustained growth rate of about 6.6% during the second half of the 80s, increased on average by 4.4% between 1980 and 1993. The Turkish economic crisis induced a drop by 4% in 1994. The development of gas consumption presents growth rates of about 31% since 1985, but the contribution of natural gas to the total final energy demand remains limited to only 3.5% in 1994. After gas, electricity is the fastest growing fuel in end-use sectors with demand rising at 9% on average on the whole period. The second contributing fuel in 1994 is biomass but its consumption has been relatively stable since 1980. Its share declined from 28% in 1980 to 19% in 1994. The shares of other fuel in total final demand are: 50% for oil (47% in 1980); 16% for solids (18% in 1980); 12% for electricity (7% in 1980); and 3% for gas (not present in 1980).

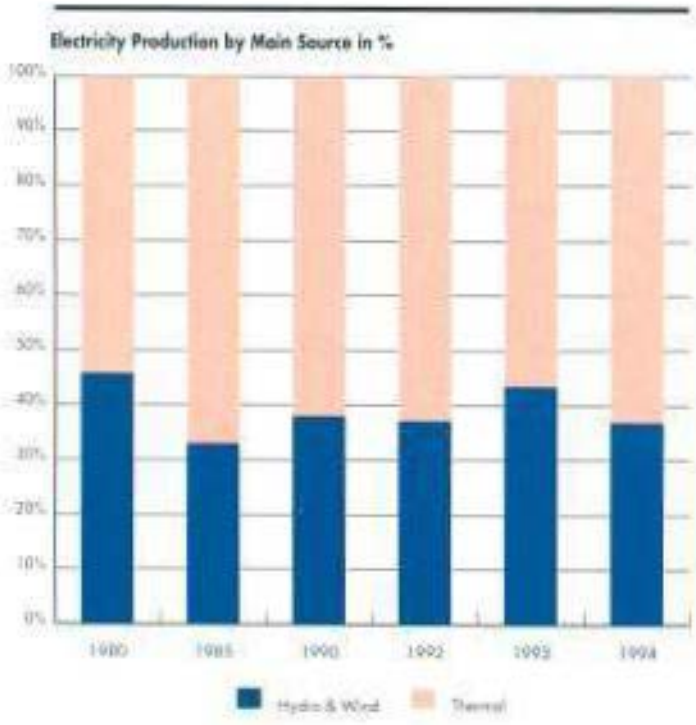
Gross inland consumption in the Mediterranean follows closely the evolution of final demand, with an average annual increase of 4.5% in the period 1980-1994. During the 80's, incremental demand has been covered mainly by solids (44%) and oil (38%), followed by natural gas (13%) and renewables (5%). But since the 90s oil secured the majority of the incremental demand (up to 70%) along with natural gas (30%). The decline of solid fuels was compensated by renewable sources. In 1994, the shares of these fuels in gross consumption were: 48% for oil; 27% for solids; 18% for renewable sources; and 7% for natural gas.





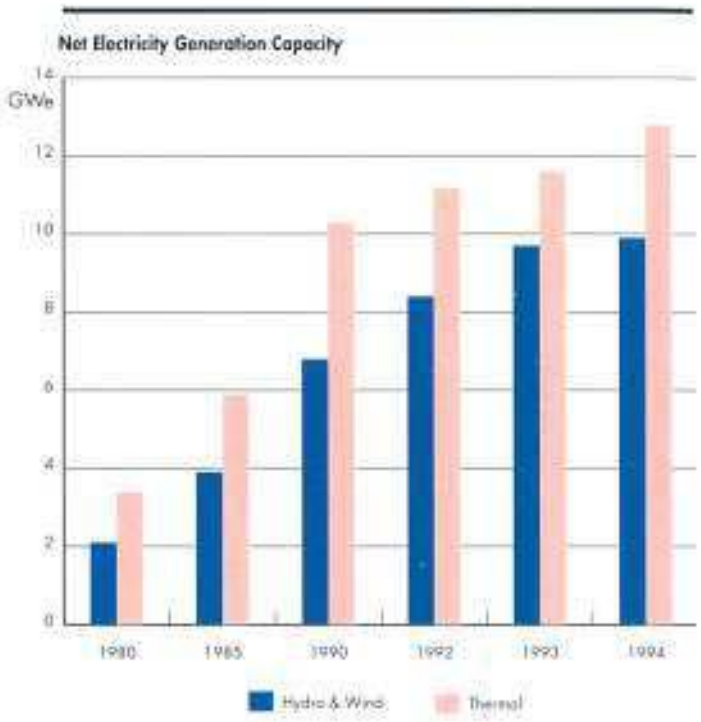
Domestic energy production in the Mediterranean occurs practically only in Turkey. Its total level steadily increased during the 80s by 4.4% per year on average. Since 1990, it has remained quite stable in volume and structure with only a marked progression of hydro. In 1994, solid fuels accounted for 45% of total, renewable sources accounted for 40% (biomass for 30% and hydro for 10%), oil for 14% and natural gas for less than 1%. There is no nuclear energy.

The Mediterranean is increasingly a **net importer of energy**, with the degree of dependency growing from 47% in 1980 to 58% in 1994. This profile directly reflects that of Turkey; the other three countries of the region being almost 100% dependent on foreign supplies. Crude oil represents the bulk of the imports, its share slowing down from 72% in 1980 to 65% in 1994. Since 1986 there have been considerable imports of natural gas into Turkey, mainly destined for power generation.

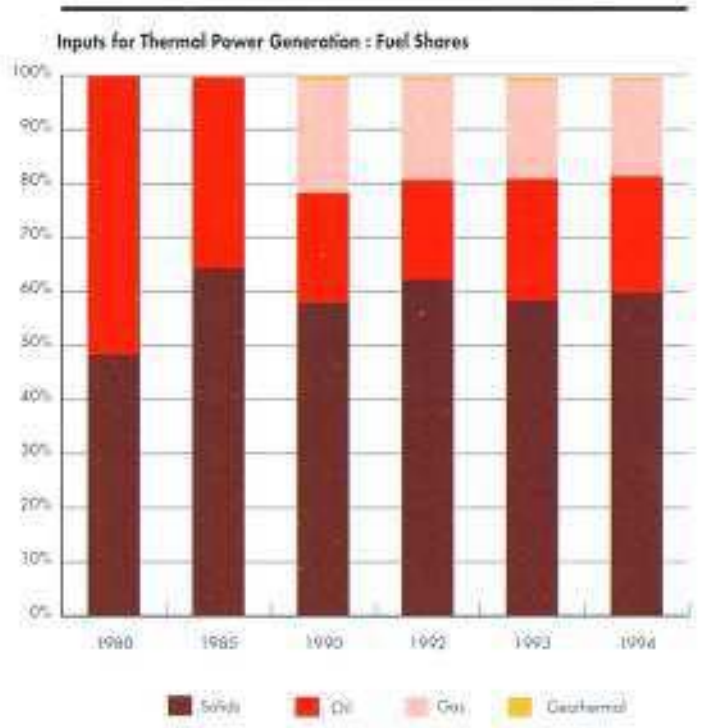


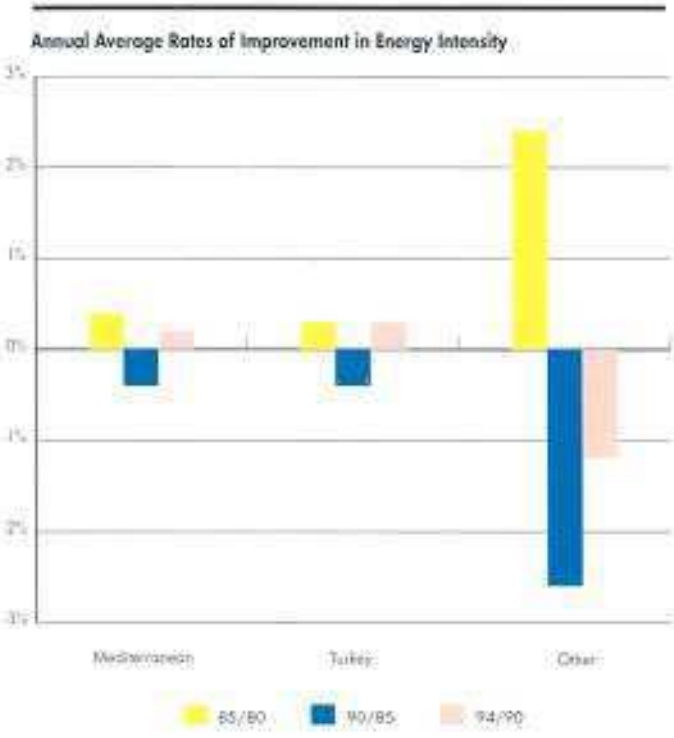
Electricity generation in the region as a whole is based on thermal units (63% of total in 1994) and hydro power. Total generation has increased steadily in the period by about 9% per year on average. In this period, thermal and hydro power production increased 10% and 7% per year respectively. However, this picture is once again conditioned by the Turkish electricity system. Indeed, in the three other countries, electricity generation which represents only 5% of the total generation of the region, is all based on thermal units, and has in fact a slower growth (about 7%) than in Turkey.

The **total Generation Capacity** reached 21.7 GWe in 1994, compared with only 5.5 GWe in 1980. So the rate of expansion was very rapid, more than 10% per year on average, or about 1 GWe per year. This market is dominated by thermal units, mainly steam coal power units and some combined cycles. Since 1990, the development of hydro power units has led to a global capacity of about 3 GWe.



The increment of **inputs for thermal generation** of electricity has been mainly satisfied by solids and gas. Oil consumption, declining steadily since 1986 to 1992, rebounded in 1993 to peak in 1994 compared with oil prices on the international market. In 1994, the shares of fossil fuels in total inputs were: solids with 61%; gas with 18%; and oil with 21%. The development of gas consumption is related to the commissioning of new large combined cycle units. The average thermal efficiency has improved from 30% in 1980 to 33% in 1994.





In terms of **energy intensity**, while Turkey presents a ratio almost double that of the European Union, the other countries of the region have much lower intensities, but are still higher than the European Union. Quite stable during the 80s, this ratio started to slowdown until 1993 with an average reduction of about 1.5 % per year. But the major part of this improvement was lost in 1994 with the recession in Turkey .

Energy consumption per capita has increased in the 80s by 3% per year on average and seems quite stable since then. In 1994 it represented only 27% of the European Union. However, mainly as a result of a higher GDP per capita in Cyprus, Gibraltar and Malta, these countries share a consumption per capita more than double that of Turkey. In addition, per capita consumption has increased much faster (4.3% per year since 1980) elsewhere in the region than in Turkey.

CO2 emissions per capita have increased in the period by 2.9% per year. In Turkey they increased by 2.8% per year, while in the other countries they grew at almost 4.4% per year. In 1994 compared to the European Union, Turkey had 74% less emissions per capita and the other countries were only 11% below.

MEDITERRANEAN : Major trends (1980-1994)

- **Final energy demand increased until 1993 at about 4% per year but 1994 was marked by a slowdown by 4% due to economic recession in Turkey**
- **Gross inland consumption dominated by oil (50% in 1994)**
- **Recent development of gas consumption, mainly for power generation**
- **Slowdown of solid consumption since 1991**
- **Sustained electricity growth: 9% per year on average over the whole period**
- **Increasing energy dependency, mainly from oil and gas**
- **Energy intensity presents limited variations arround the 1985 levels**
- **Energy consumption per inhabitant increased during the 80s but seems stable since then**

MAIN INDICATORS : COMPARISON

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985 MECU)											
Mediterranean	560.1	548.4	560.5	547.6	537.5	555.1	-0.4%	0.4%	-1.2%	-1.8%	3.3%
Turkey	572.1	562.2	572.4	558.5	547.7	565.9	-0.3%	0.4%	-1.2%	-1.9%	3.3%
Other	380.2	336.2	382.7	390.8	383.0	401.0	-2.4%	2.6%	1.1%	-2.0%	4.7%
European Union	350.9	332.3	304.2	302.1	302.8	296.1	-1.1%	-1.8%	-0.4%	0.2%	-2.2%
Gross Inland Consumption per Capita (toe/inhabitant)											
Mediterranean	0.72	0.79	0.97	0.98	1.01	0.98	1.8%	4.3%	0.4%	3.6%	-3.7%
Turkey	0.70	0.77	0.95	0.95	0.99	0.95	1.8%	4.2%	0.2%	3.8%	-4.1%
Other	1.41	1.46	2.20	2.45	2.43	2.53	0.7%	8.5%	5.6%	-0.7%	4.0%
European Union	3.42	3.46	3.63	3.62	3.60	3.61	0.2%	1.0%	0.0%	-0.6%	0.2%
Energy Dependency (%)											
Mediterranean	47.2	45.8	54.4	53.5	58.0	58.4	-0.6%	3.5%	-0.8%	8.4%	0.7%
Turkey	45.2	44.0	52.1	50.2	55.2	55.5	-0.5%	3.4%	-1.8%	9.8%	0.5%
Other	112.4	112.2	123.1	137.4	137.4	134.7	0.0%	1.9%	5.7%	0.0%	-1.9%
European Union	55.4	60.4	65.4	67.4	68.4	69.4	1.7%	1.6%	1.5%	1.5%	1.5%
GDP/Capita (Thousand 1985 ECU/inhabitant)											
Mediterranean	1.29	1.43	1.73	1.79	1.89	1.76	2.2%	3.9%	1.6%	5.5%	-6.8%
Turkey	1.23	1.37	1.66	1.70	1.80	1.67	2.2%	3.8%	1.4%	5.9%	-7.2%
Other	3.71	4.34	5.74	6.27	6.35	6.31	3.2%	5.8%	4.5%	1.3%	-0.7%
European Union	9.74	10.66	12.26	11.99	11.89	12.18	1.8%	2.8%	-1.1%	-0.9%	2.5%
CO2 Emissions (Million tonnes of CO2)											
Mediterranean	72.7	95.5	131.0	140.6	145.3	144.6	5.6%	6.3%	3.6%	3.4%	-0.5%
Turkey	68.7	90.9	123.9	132.5	137.2	136.1	5.8%	6.4%	3.4%	3.5%	-0.7%
Other	4.1	4.6	7.1	8.1	8.1	8.4	2.5%	9.2%	6.6%	0.6%	3.5%
European Union	3337.0	3110.0	3213.9	3174.1	3121.8	3105.8	-1.4%	0.7%	-0.6%	-1.6%	-0.5%
CO2 Emissions (t of CO2/inhabitant)											
Mediterranean	1.6	1.9	2.3	2.4	2.4	2.3	3.0%	4.3%	1.6%	1.2%	-2.4%
Turkey	1.5	1.8	2.2	2.3	2.3	2.2	3.2%	4.1%	1.4%	1.4%	-2.7%
Other	4.1	4.4	6.6	7.3	7.3	7.5	1.4%	8.2%	5.6%	-0.4%	2.5%
European Union	9.4	8.7	8.8	8.6	8.4	8.4	-1.6%	0.3%	-1.1%	-2.1%	-0.8%

MEDITERRANEAN : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	17.2	21.7	26.4	26.9	26.8	26.8	4.7%	4.0%	1.1%	0.5%	0.0%
Solids	6.2	10.7	12.4	12.1	11.7	12.1	11.6%	3.1%	-1.2%	-3.6%	3.6%
Oil	2.4	2.2	3.8	4.4	4.0	3.8	-2.0%	12.0%	7.3%	-9.0%	-5.0%
Natural gas	0.0	0.1	0.2	0.2	0.2	0.2	-	25.9%	-3.4%	1.0%	-0.5%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	1.0	1.0	2.0	2.3	2.9	2.7	1.2%	14.0%	7.1%	27.8%	-8.4%
Geothermal	0.0	0.0	0.1	0.1	0.1	0.1	-	67.9%	6.5%	61.2%	18.4%
Other	7.7	7.8	7.9	7.9	7.9	8.0	0.2%	0.4%	0.1%	0.2%	0.2%
Net Imports	15.7	18.9	30.7	31.7	36.3	35.8	3.7%	10.2%	1.6%	14.5%	-1.2%
Solids	0.5	1.8	4.5	4.3	4.3	4.2	28.3%	19.5%	-1.2%	-0.7%	-2.1%
Oil	15.1	16.9	23.6	23.7	27.9	27.4	2.2%	7.0%	0.2%	17.8%	-2.0%
Crude oil	11.3	16.3	21.1	20.5	23.3	23.1	7.5%	5.4%	-1.5%	13.5%	na
Oil products	3.8	0.6	2.5	3.2	4.7	4.2	-31.0%	33.4%	13.3%	45.4%	na
Natural gas	0.0	0.0	2.7	3.7	4.1	4.3	-	-	16.7%	11.7%	5.9%
Electricity	0.1	0.2	-0.1	0.0	0.0	0.0	9.8%	-	-58.6%	200.7%	-43.4%
Gross Inland Consumption	32.7	40.4	55.5	58.2	61.6	60.4	4.3%	6.6%	2.4%	5.7%	-1.9%
Solids	7.0	12.2	17.2	17.4	16.2	16.2	11.8%	7.1%	0.7%	-7.2%	0.0%
Oil	16.9	19.1	25.6	26.7	30.2	29.1	2.5%	6.0%	2.2%	13.1%	-3.9%
Natural gas	0.0	0.1	2.9	3.8	4.2	4.5	-	120.2%	15.6%	11.1%	5.7%
Other (1)	8.8	9.0	9.9	10.3	10.9	10.7	0.5%	2.0%	1.8%	6.4%	-2.1%
Electricity Generation in TWh	24.8	36.4	60.7	71.3	78.0	82.7	8.0%	10.6%	8.4%	9.3%	6.1%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	11.3	12.0	23.1	26.6	34.0	30.6	1.2%	14.0%	7.1%	27.8%	-9.9%
Thermal	13.4	24.3	37.6	44.8	44.0	52.1	12.7%	9.1%	9.2%	-1.7%	18.4%
Generation Capacity in GWe	5.5	9.7	17.1	19.5	21.3	21.7	12.0%	11.9%	7.0%	8.9%	2.0%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	2.1	3.9	6.8	8.4	9.7	9.9	12.7%	11.8%	11.3%	15.6%	1.8%
Thermal	3.4	5.9	10.3	11.2	11.6	11.8	11.5%	11.9%	4.1%	3.9%	2.1%
Average Load Factor in %	51.1	42.7	40.6	41.7	41.8	43.5	-3.5%	-1.0%	1.3%	0.4%	4.0%
Fuel Inputs for Thermal Power Generation	3.9	6.7	10.1	11.6	11.7	13.6	11.5%	8.7%	6.9%	0.9%	16.2%
Solids	1.9	4.3	5.9	7.2	6.8	8.1	18.1%	6.5%	10.8%	-5.3%	19.0%
Oil	2.0	2.4	2.1	2.1	2.6	2.9	3.4%	-2.6%	1.8%	23.2%	11.7%
Gas	0.0	0.0	2.1	2.2	2.1	2.4	-	169.9%	0.6%	-1.1%	14.0%
Geothermal	0.0	0.0	0.1	0.1	0.1	0.1	-	67.9%	6.5%	11.4%	1.3%
Other	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	23.1%	-12.7%
Average Thermal Efficiency in %	29.8	31.4	31.9	33.2	32.4	33.0	1.0%	0.3%	2.1%	-2.5%	1.8%
Non-Energy Uses	0.9	1.5	2.9	3.3	4.0	3.4	10.7%	14.7%	5.3%	22.7%	-14.0%
Total Final Energy Demand	27.2	31.4	40.6	42.6	45.0	43.2	2.9%	5.3%	2.5%	5.4%	-3.9%
Solids	4.8	7.0	8.8	8.6	7.9	6.7	7.7%	4.8%	-0.7%	-9.0%	-14.6%
Oil	12.9	14.0	19.3	20.2	22.5	21.6	1.6%	6.6%	2.5%	11.4%	-4.3%
Gas	0.0	0.1	0.5	1.1	1.4	1.5	14.0%	48.6%	43.0%	28.6%	5.5%
Electricity	1.8	2.6	4.1	4.7	5.2	5.4	7.7%	9.5%	7.5%	9.4%	4.0%
Heat	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-56.7%
Other	7.7	7.8	7.9	7.9	7.9	8.0	0.2%	0.4%	0.0%	0.1%	0.8%
CO2 Emissions in Mt of CO2	72.7	95.5	131.0	140.6	145.3	144.6	5.6%	6.5%	3.6%	3.4%	-0.5%
Indicators											
Population (Million)	45.42	51.38	57.18	59.47	60.71	61.90	2.5%	2.2%	2.0%	2.1%	2.0%
GDP (index 1985=100)	79.3	100.0	134.6	144.4	155.5	147.8	4.8%	6.1%	3.6%	7.7%	-5.0%
Gross Inl Cons./GDP (toe/1985 MECU)	560.1	548.4	560.5	547.6	537.5	555.1	-0.4%	0.4%	-1.2%	-1.8%	3.3%
Gross Inl Cons./Capita (toe/inhabitant)	0.72	0.79	0.97	0.98	1.01	0.98	1.8%	4.3%	0.4%	3.6%	-3.7%
Electricity Generated/Capita (kWh/inhabitant)	545	708	1062	1199	1284	1336	5.4%	8.4%	6.3%	7.1%	4.0%
CO2 Emissions/Capita (t of CO2/inhabitant)	1.6	1.9	2.3	2.4	2.4	2.3	3.0%	4.3%	1.6%	1.2%	-2.4%
Import Dependency %	47.2	45.8	54.4	53.5	58.0	58.4	-0.6%	3.5%	-0.8%	8.4%	0.7%

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

TURKEY : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	17.2	21.7	26.3	26.9	26.8	26.8	4.7%	4.0%	1.1%	0.5%	0.0%
Solids	6.2	10.7	12.4	12.1	11.7	12.1	11.6%	3.1%	-1.2%	-3.6%	3.6%
Oil	2.4	2.2	3.8	4.4	4.0	3.8	-2.0%	12.0%	7.3%	-9.0%	-5.0%
Natural gas	0.0	0.1	0.2	0.2	0.2	0.2	-	25.9%	3.4%	1.0%	-0.5%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	1.0	1.0	2.0	2.3	2.9	2.7	1.2%	14.0%	7.1%	27.8%	-8.4%
Geothermal	0.0	0.0	0.1	0.1	0.1	0.1	-	67.9%	-6.5%	61.2%	18.4%
Other	7.7	7.7	7.9	7.9	7.9	8.0	0.2%	0.4%	0.1%	0.2%	0.2%
Net Imports	14.2	17.2	27.8	28.0	32.5	32.0	3.9%	10.1%	0.4%	16.4%	-1.7%
Solids	0.5	1.6	4.2	4.2	4.1	4.0	25.7%	20.6%	-0.1%	-2.2%	-2.5%
Oil	13.5	15.3	20.9	20.1	24.4	23.7	2.5%	6.4%	-2.0%	21.2%	-2.7%
Crude oil	10.7	15.8	20.5	19.7	22.5	22.3	8.1%	5.4%	-1.9%	13.8%	na
Oil products	2.8	-0.5	0.4	0.4	1.9	1.4	-	-	-6.8%	418.3%	na
Natural gas	0.0	0.0	2.7	3.7	4.1	4.3	-	-	16.7%	11.7%	5.9%
Electricity	0.1	0.2	-0.1	0.0	0.0	0.0	9.8%	-	-58.6%	200.7%	43.4%
Gross Inland Consumption	31.3	38.9	53.2	55.5	58.9	57.6	4.4%	6.5%	2.2%	6.0%	-2.2%
Solids	7.0	12.1	16.9	17.3	16.0	16.0	11.5%	7.0%	1.0%	-7.6%	0.0%
Oil	15.6	17.8	23.5	24.2	27.7	26.4	2.7%	5.7%	1.5%	14.7%	-4.7%
Natural gas	0.0	0.1	2.9	3.8	4.2	4.5	-	120.2%	15.6%	11.1%	5.7%
Other (1)	8.8	9.0	9.9	10.3	10.9	10.7	0.5%	2.0%	1.8%	6.5%	-2.1%
Electricity Generation in TWh	23.1	34.2	57.5	67.3	73.8	78.3	8.1%	11.0%	8.2%	9.6%	6.1%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	11.3	12.0	23.1	26.6	34.0	30.6	1.2%	14.0%	7.1%	27.8%	-9.9%
Thermal	11.8	22.2	34.4	40.8	39.9	47.7	13.5%	9.2%	8.9%	-2.2%	19.8%
Generation Capacity in GWe	5.1	9.1	16.3	18.7	20.3	20.8	12.2%	12.3%	7.1%	8.7%	2.1%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	2.1	3.9	6.8	8.4	9.7	9.9	12.7%	11.8%	11.3%	15.6%	1.8%
Thermal	3.0	5.2	9.6	10.3	10.7	10.9	11.9%	12.7%	4.0%	3.1%	2.3%
Average Load Factor in %	51.6	42.8	40.3	41.1	41.4	43.1	-3.7%	-1.2%	1.0%	0.9%	3.9%
Fuel Inputs for Thermal Power Generation	3.4	6.0	9.1	10.5	10.5	12.4	12.4%	8.6%	7.5%	0.4%	17.5%
Solids	1.9	4.2	5.7	7.1	6.7	7.9	17.4%	6.4%	11.6%	-6.2%	19.4%
Oil	1.5	1.8	1.2	1.2	1.7	1.9	4.3%	-8.2%	-0.7%	41.7%	15.5%
Gas	0.0	0.0	2.1	2.2	2.1	2.4	-	169.9%	0.6%	-1.1%	14.0%
Geothermal	0.0	0.0	0.1	0.1	0.1	0.1	-	67.9%	-6.5%	11.4%	1.3%
Other	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	23.1%	-12.7%
Average Thermal Efficiency in %	30.2	31.6	32.6	33.4	32.5	33.1	0.9%	0.6%	1.2%	-2.6%	2.0%
Non-Energy Uses	0.8	1.4	2.8	3.2	3.9	3.4	10.9%	14.8%	5.8%	22.9%	-14.4%
Total Final Energy Demand	26.3	30.4	39.2	40.8	43.2	41.4	3.0%	5.2%	2.1%	5.8%	-4.3%
Solids	4.8	6.9	8.7	8.6	7.9	6.7	7.6%	4.8%	-0.5%	-9.0%	-14.7%
Oil	12.1	13.2	18.1	18.7	21.1	20.1	1.8%	6.5%	1.7%	12.6%	-4.9%
Gas	0.0	0.1	0.5	1.1	1.4	1.5	14.0%	48.6%	43.0%	28.6%	5.5%
Electricity	1.7	2.4	3.9	4.4	4.9	5.1	7.8%	9.6%	7.3%	9.7%	4.0%
Heat	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	56.7%
Other	7.7	7.7	7.9	7.9	7.9	8.0	0.2%	0.4%	0.0%	0.1%	0.8%
CO2 Emissions in Mt of CO2	68.7	90.9	123.9	132.5	137.2	136.1	5.8%	6.4%	3.4%	3.5%	-0.7%
Indicators											
Population (Million)	44.44	50.35	56.10	58.37	59.60	60.77	2.5%	2.2%	2.0%	2.1%	2.0%
GDP (index 1985=100)	79.2	100.0	134.3	143.8	155.4	147.1	4.8%	6.1%	3.5%	8.1%	-5.3%
Gross Inl Cons./GDP (toe/1985 MECU)	572.1	562.2	572.4	558.5	547.7	565.9	-0.3%	0.4%	-1.2%	-1.9%	3.3%
Gross Inl Cons./Capita (toe/inhabitant)	0.70	0.77	0.95	0.95	0.99	0.95	1.8%	4.2%	0.2%	3.8%	-4.1%
Electricity Generated/Capita (kWh/inhabitant)	521	680	1026	1154	1238	1289	5.5%	8.6%	6.1%	7.3%	4.1%
CO2 Emissions/Capita (t of CO2/inhabitant)	1.5	1.8	2.2	2.3	2.3	2.2	3.2%	4.1%	1.4%	1.4%	-2.7%
Import Dependency %	45.2	44.0	52.1	50.2	55.2	55.5	-0.5%	3.4%	-1.8%	9.8%	0.5%

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

MEDITERRANEAN BASSIN (EXCLUDING EUROPE): SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	232.5	231.0	287.2	308.0	306.9	na	-0.1%	4.4%	3.6%	-0.4%	na
Solids	6.6	11.1	12.7	12.5	12.1	na	11.1%	2.7%	-1.0%	-3.2%	na
Oil	194.5	167.4	201.5	214.5	211.1	na	-3.0%	3.8%	3.2%	-1.6%	na
Natural gas	19.3	39.6	58.1	65.5	67.5	na	15.5%	8.0%	6.1%	3.1%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Hydro & Wind	2.3	2.5	4.0	4.4	5.0	na	1.8%	9.8%	5.9%	12.9%	na
Geothermal	0.0	0.0	0.1	0.1	0.1	na	-	67.9%	-6.5%	61.2%	na
Other	9.9	10.4	10.8	11.0	11.0	na	1.0%	0.8%	0.7%	0.6%	na
Net Imports	-133.9	-103.9	-125.1	-132.1	-122.2	na	-4.9%	3.8%	2.8%	-7.5%	na
Solids	1.1	5.7	9.3	10.1	10.0	na	38.8%	10.3%	4.3%	-1.3%	na
Oil	-126.9	-88.9	-107.3	-111.4	-101.8	na	-6.9%	3.8%	1.9%	-8.6%	na
Crude oil	-123.5	-70.1	-85.4	-88.5	-84.1	na	-10.7%	4.0%	1.8%	-4.9%	na
Oil products	-3.4	-18.9	-21.9	-23.0	-17.7	na	40.6%	3.0%	2.5%	-22.9%	na
Natural gas	8.2	-20.8	-27.0	-30.8	-30.2	na	20.6%	5.3%	6.8%	-1.7%	na
Electricity	0.1	0.2	-0.1	-0.1	-0.1	na	8.9%	-	-18.7%	64.2%	na
Gross Inland Consumption	93.6	125.1	161.3	172.6	183.7	na	6.0%	5.2%	3.4%	6.5%	na
Solids	8.1	16.3	22.3	23.1	22.3	na	15.0%	6.5%	1.7%	-3.6%	na
Oil	62.1	77.0	93.0	99.3	108.1	na	4.4%	3.9%	3.3%	8.9%	na
Natural gas	11.1	18.8	31.2	34.7	37.3	na	11.1%	10.7%	5.6%	7.4%	na
Other (1)	12.3	13.0	14.7	15.4	16.0	na	1.2%	2.5%	2.2%	4.2%	na
Electricity Generation in TWh	83.1	133.5	190.1	214.4	227.6	na	10.0%	7.3%	6.2%	6.2%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Hydro & wind	26.4	25.4	40.6	45.6	51.9	na	-0.7%	9.9%	6.0%	13.9%	na
Thermal	56.7	108.1	149.5	168.8	175.7	na	13.8%	6.7%	6.3%	4.1%	na
Generation Capacity in GWe	20.5	33.8	50.4	54.9	56.0	na	10.5%	8.3%	4.4%	2.0%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Hydro & wind	6.6	8.4	11.7	13.4	14.7	na	4.8%	6.9%	7.3%	9.6%	na
Thermal	13.9	25.4	38.7	41.5	41.3	na	12.8%	8.8%	3.5%	-0.5%	na
Average Load Factor in %	46.2	45.1	43.1	44.6	46.4	na	-0.5%	-0.9%	1.7%	4.1%	na
Fuel Inputs for Thermal Power Generation	17.2	26.8	36.3	40.6	42.9	na	9.4%	6.2%	5.8%	5.9%	na
Solids	2.2	6.5	8.9	10.9	11.1	na	23.7%	6.6%	10.6%	1.4%	na
Oil	11.8	13.8	16.3	16.7	17.8	na	3.2%	3.4%	1.2%	7.0%	na
Gas	3.2	6.6	11.0	12.9	13.9	na	15.7%	10.8%	8.2%	8.2%	na
Geothermal	0.0	0.0	0.1	0.1	0.1	na	-	67.9%	-6.5%	11.4%	na
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	23.1%	na
Average Thermal Efficiency in %	28.4	34.3	35.1	35.4	34.8	na	3.9%	0.4%	0.5%	-1.7%	na
Non-Energy Uses	3.7	5.5	7.1	7.8	7.4	na	8.6%	5.2%	4.9%	-5.9%	na
Total Final Energy Demand	66.3	86.6	106.5	113.5	119.4	na	5.5%	4.2%	3.2%	5.2%	na
Solids	5.5	8.6	10.4	10.4	9.5	na	9.3%	4.1%	-0.3%	-8.7%	na
Oil	42.6	53.5	64.2	67.9	71.1	na	4.7%	3.7%	2.8%	4.7%	na
Gas	2.4	4.2	6.8	7.7	10.3	na	11.7%	9.9%	6.9%	33.2%	na
Electricity	6.0	9.4	13.5	15.6	16.5	na	9.4%	7.6%	7.6%	5.7%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	9.9	10.9	11.6	11.8	12.0	na	2.0%	1.2%	1.0%	1.0%	na
CO2 Emissions in Mt of CO2	224.2	311.0	398.4	426.0	446.2	na	6.8%	5.1%	3.4%	4.7%	na
Indicators											
Population (Million)	151.97	171.95	192.83	201.61	206.28	na	2.5%	2.3%	2.3%	2.3%	na
GDP (Index 1985=100)	87.7	100.0	114.7	122.3	125.4	na	2.6%	2.8%	3.3%	2.5%	na
Gross Inl Cons./GDP (toe/1985 MECU)	339.9	398.5	447.8	449.3	466.8	na	3.2%	2.4%	0.2%	3.9%	na
Gross Inl Cons./Capita (toe/inhabitant)	0.62	0.73	0.84	0.86	0.89	na	3.4%	2.8%	1.2%	4.1%	na
Electricity Generated/Capita (kWh/inhabitant)	547	776	986	1064	1103	na	7.3%	4.9%	3.9%	3.8%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	1.5	1.8	2.1	2.1	2.2	na	4.2%	2.7%	1.1%	2.4%	na
Import Dependency %	-143.9	-83.9	-78.5	-77.5	-67.4	na	-10.2%	-1.3%	-0.6%	-13.0%	na

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

PART VIII AFRICA

This is a vast continent with a natural geographic separation (the Sahara desert) between the North along the Mediterranean sea, and all other countries. Besides geography, there are other, more profound differences in terms of energy production, trade and use, as well as economic structures, stage of development, culture and life style. Moreover, there are special links between the European Union and North African countries, particularly concerning natural gas and oil supplies. The table below shows some average energy and economic indicators for the two African regions and for the European Union.

MAIN INDICATORS : COMPARISON

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
Africa	469.0	567.6	584.0	587.2	595.3	603.0	3.9%	0.6%	0.3%	1.4%	1.3%
North Africa	262.6	355.5	413.3	424.5	453.0	435.2	6.2%	3.1%	1.3%	6.7%	-3.9%
Other Africa	585.4	697.2	680.8	681.1	674.7	693.6	3.6%	-0.5%	0.0%	-0.9%	2.8%
European Union	350.9	332.3	304.2	302.1	302.8	296.1	-1.1%	-1.8%	-0.4%	0.2%	-2.2%
Gross Inland Consumption per Capita (toe/inhabitant)											
Africa	0.47	0.53	0.53	0.52	0.51	0.51	2.1%	0.1%	-1.1%	-0.9%	0.2%
North Africa	0.49	0.64	0.70	0.71	0.73	0.70	5.6%	2.0%	0.7%	2.6%	-3.9%
Other Africa	0.47	0.50	0.49	0.47	0.46	0.47	1.3%	-0.5%	-1.6%	-2.7%	1.8%
European Union	3.42	3.46	3.63	3.62	3.60	3.61	0.2%	1.0%	0.0%	-0.6%	0.2%
Energy Dependency (%)											
Africa	-114.4	-83.2	-89.1	-90.9	-88.9	-86.1	-6.2%	1.4%	1.0%	-2.2%	-3.2%
North Africa	-340.8	-197.7	-192.6	-192.4	-175.0	-181.7	-10.3%	-0.5%	-0.1%	-9.0%	3.8%
Other Africa	-56.5	-48.4	-54.8	-56.6	-57.9	-53.3	-3.0%	2.5%	1.7%	2.2%	-7.9%
European Union	55.4	41.6	47.5	49.8	47.8	46.2	-5.6%	2.7%	2.4%	-4.0%	-3.2%
GDP/Capita (Thousand 1985 ECU/inhabitant)											
Africa	1.01	0.93	0.90	0.88	0.86	0.85	-1.7%	-0.5%	-1.4%	-2.3%	-1.0%
North Africa	1.85	1.80	1.71	1.68	1.63	1.62	-0.6%	-1.0%	-0.7%	-2.9%	na
Other Africa	0.80	0.72	0.72	0.69	0.68	0.68	-2.2%	0.0%	-1.6%	-1.7%	na
European Union	9.7	10.7	12.3	12.0	11.9	12.2	1.8%	2.8%	-1.1%	-0.9%	2.5%
CO2 Emissions (Million tonnes of CO2)											
Africa	395.9	162.6	199.1	207.8	218.0	na	-16.3%	4.1%	2.1%	4.9%	na
North Africa	111.0	49.5	61.0	65.3	67.3	na	-14.9%	4.3%	3.4%	3.1%	na
Other Africa	284.9	62.8	75.3	77.3	83.0	na	-26.1%	3.7%	1.3%	7.3%	na
European Union	3337.0	3110.0	3213.9	3174.1	3121.8	3105.8	-1.4%	0.7%	-0.6%	-1.6%	-0.5%
CO2 Emissions (t of CO2/inhabitant)											
Africa	0.9	0.9	0.9	0.9	0.9	na	1.4%	0.3%	-1.7%	2.1%	na
North Africa	1.2	1.6	1.7	1.7	1.8	na	5.4%	1.8%	0.0%	2.7%	na
Other Africa	0.8	0.8	0.7	0.7	0.7	na	-0.3%	-0.4%	-2.5%	2.0%	na
European Union	9.4	8.7	8.8	8.6	8.4	8.4	-1.6%	0.3%	-1.1%	-2.1%	-0.6%

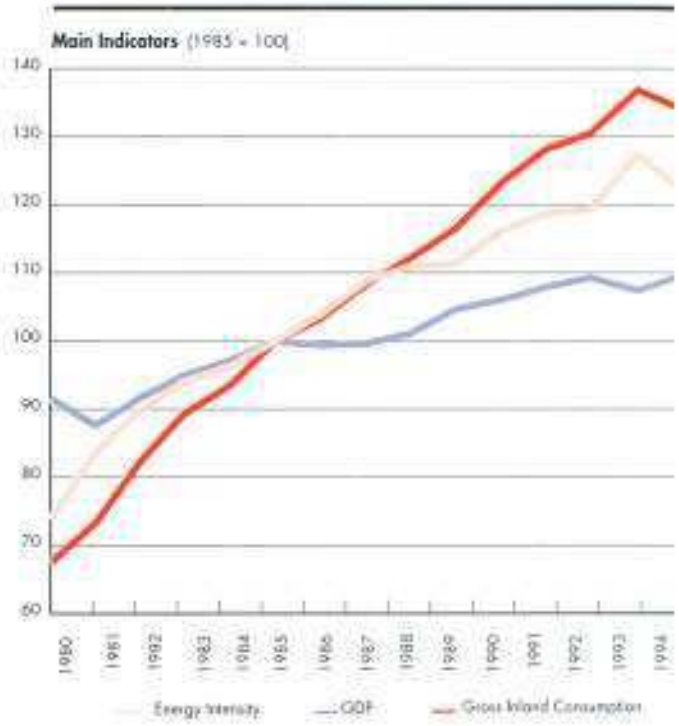
AFRICA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	492.7	526.2	620.8	642.2	649.4	657.8	1.3%	3.4%	1.7%	1.1%	1.3%
Solids	72.1	105.1	115.1	109.4	113.8	122.1	7.8%	1.8%	-2.5%	4.0%	7.3%
Oil	310.8	270.4	323.4	337.2	335.3	334.8	-2.7%	3.6%	2.1%	-0.6%	-0.1%
Natural gas	20.4	42.5	60.0	68.2	72.2	70.5	15.8%	7.1%	6.6%	5.8%	-2.4%
Nuclear	0.0	1.4	2.2	2.4	1.9	2.5	-	9.7%	4.9%	-21.9%	30.0%
Hydro & Wind	5.3	4.4	4.8	5.2	4.9	5.0	-3.4%	1.5%	4.0%	-5.7%	3.3%
Geothermal	0.0	0.1	0.3	0.3	0.3	0.3	30.9%	47.2%	6.9%	0.0%	0.0%
Other	84.0	102.3	115.0	119.6	121.0	122.5	4.0%	2.4%	2.0%	1.2%	1.2%
Net Imports	-257.9	-237.9	-294.1	-309.8	-307.7	-306.1	-1.6%	4.3%	2.6%	-0.7%	-0.5%
Solids	-18.8	-27.9	-30.8	-31.4	-33.5	-38.1	8.2%	2.0%	1.0%	6.9%	13.6%
Oil	-230.9	-189.2	-233.6	-244.0	-239.9	-238.0	-3.9%	4.3%	2.2%	-1.7%	-0.8%
Crude oil	-230.2	-177.0	-212.5	-222.2	-222.0	na	-5.1%	3.7%	2.3%	-0.1%	-
Oil products	-0.8	-12.3	-21.0	-21.8	-18.0	na	73.1%	11.4%	1.7%	-17.6%	-
Natural gas	-8.2	-20.8	-29.6	-34.4	-34.3	-30.0	20.6%	7.3%	7.7%	-0.3%	-12.6%
Electricity	0.0	0.0	-0.1	0.0	0.0	0.0	-	-	-54.8%	-70.0%	0.0%
Gross Inland Consumption	220.1	281.1	323.8	333.9	340.2	350.7	5.0%	2.9%	1.6%	1.9%	3.1%
Solids	52.5	75.4	84.0	82.7	82.5	86.2	7.5%	2.2%	-0.8%	-0.2%	4.5%
Oil	66.0	75.9	87.2	90.0	91.8	93.6	2.8%	2.8%	1.6%	2.0%	2.0%
Natural gas	12.3	21.7	30.4	33.8	37.9	40.5	12.0%	7.0%	5.4%	12.1%	6.9%
Other (1)	89.3	108.2	122.2	127.4	128.1	130.3	3.9%	2.5%	2.1%	0.5%	1.7%
Electricity Generation in TWh	198.0	263.0	321.6	333.6	342.9	na	5.8%	4.1%	1.9%	2.8%	na
Nuclear	0.0	5.3	8.4	9.3	7.3	na	-	9.7%	4.8%	-21.9%	na
Hydro & wind	61.2	51.3	55.3	59.8	56.4	na	-3.5%	1.5%	4.0%	-5.7%	na
Thermal	136.8	206.4	257.8	264.5	279.2	na	8.6%	4.5%	1.3%	5.5%	na
Generation Capacity in GWe	42.9	57.9	74.2	76.0	76.7	na	6.2%	5.1%	1.2%	0.9%	na
Nuclear	0.0	1.0	1.8	1.8	1.8	na	-	13.8%	0.0%	0.0%	na
Hydro & wind	13.2	16.6	18.8	19.1	19.0	na	4.8%	2.5%	0.7%	-0.1%	na
Thermal	29.7	40.3	53.6	55.1	55.8	na	6.3%	5.9%	1.4%	1.3%	na
Average Load Factor in %	52.7	51.9	49.5	50.1	51.1	na	-0.3%	-0.9%	0.7%	1.8%	na
Fuel Inputs for Thermal Power Generation	40.4	55.9	67.0	68.6	72.8	na	6.7%	3.7%	1.2%	6.1%	na
Solids	28.4	36.8	44.2	44.3	46.9	na	5.3%	3.7%	0.3%	5.8%	na
Oil	7.9	10.7	12.3	12.3	12.8	na	6.2%	2.8%	0.2%	3.5%	na
Gas	4.1	8.3	10.1	11.5	12.8	na	15.1%	4.1%	6.5%	11.7%	na
Geothermal	0.0	0.0	0.3	0.3	0.3	na	30.4%	47.1%	-6.8%	0.0%	na
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	
Average Thermal Efficiency in %	29.1	31.8	33.1	33.1	33.0	na	1.8%	0.8%	0.1%	-0.5%	na
Non-Energy Uses	3.7	5.3	5.9	6.0	3.5	na	7.5%	2.4%	0.4%	-42.3%	na
Total Final Energy Demand	170.9	204.2	231.8	239.4	246.3	na	3.6%	2.6%	1.6%	2.9%	na
Solids	18.5	19.0	19.2	18.5	18.5	na	0.6%	0.2%	-1.7%	-0.4%	na
Oil	51.0	59.4	67.7	69.1	72.0	na	3.1%	2.7%	1.0%	4.2%	na
Gas	2.8	4.9	6.8	7.6	9.6	na	11.8%	6.7%	5.4%	27.3%	na
Electricity	14.6	18.5	23.1	24.6	25.2	na	4.9%	4.6%	3.1%	2.3%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	84.1	102.3	115.0	119.6	121.1	na	4.0%	2.4%	2.0%	1.2%	na
CO2 Emissions in Mt of CO2	395.9	487.9	567.9	579.0	607.9	na	4.3%	3.1%	1.0%	5.0%	na
Indicators											
Population (Million)	465.03	535.10	614.05	648.09	666.59	685.34	2.8%	2.8%	2.7%	2.9%	2.8%
GDP (Index 1985=100)	94.8	100.0	111.9	114.8	115.4	117.8	1.1%	2.3%	1.3%	0.5%	2.1%
Gross Inl Cons./GDP (toe/1985 MECU)	469.0	567.6	584.0	587.2	595.3	603.0	3.9%	0.6%	0.3%	1.4%	1.3%
Gross Inl Cons./Capita (toe/inhabitant)	0.47	0.53	0.53	0.52	0.51	0.51	2.1%	0.1%	-1.1%	-0.9%	0.2%
Electricity Generated/Capita (kWh/inhabitant)	426	492	524	515	514	na	2.9%	1.3%	-0.8%	0.1%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	0.9	0.9	0.9	0.9	0.9	na	1.4%	0.3%	-1.7%	2.1%	na
Import Dependency %	-114.4	-83.2	-89.1	-90.9	-88.9	-86.1	6.2%	1.4%	1.0%	-2.2%	-3.2%

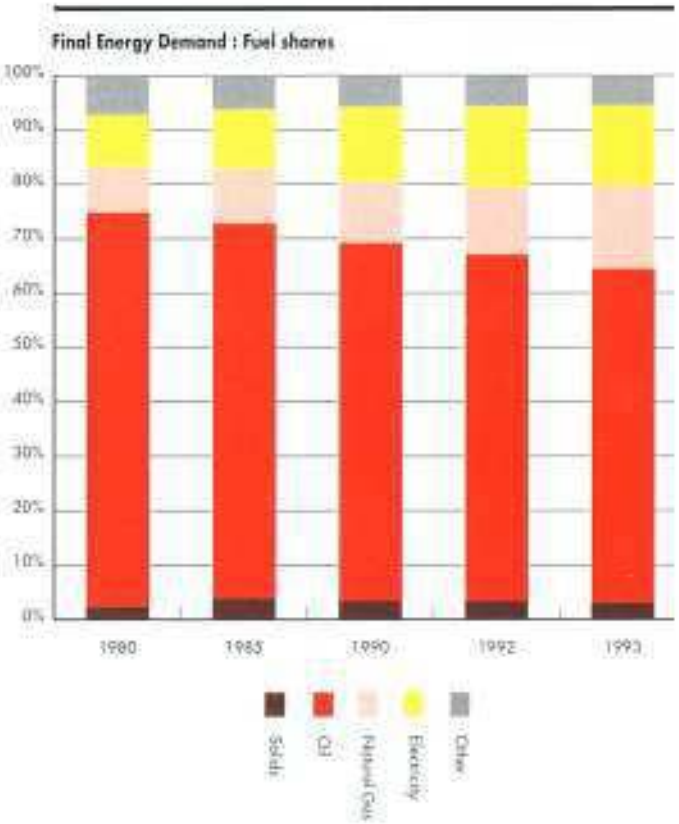
(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Estimates

NORTH AFRICA

This region includes: Algeria, Egypt, Libya, Morocco and Tunisia. **Final energy consumption** has increased continuously since 1980 (5% per year on average), but the rate of growth has steadily slowed. In fact, while consumption grew by 7.4% per year in the first half of the 80s, it only increased by 3.3% per year in the second half and by 2.6% between 1990 and 1992, but rebounded to 5.3% in 1993. Oil is largely the dominant fuel in final consumption with 61.5% of total in 1993 (72.5% in 1980). Natural gas had the fastest rate of growth (8% per year in the period 1980-92) before a jump by 31.5% in 1993. It accounted for 15% of total final demand in 1993 (8% in 1980). Electricity ranks second in rate of penetration with average growth of 8.3% in the period 1980-93 and satisfying 15% in 1993 (10% in 1980). Demand for solid fuels has increased by almost 19% per year in the first half of the 80s, but remained stable since then. Although non-commercial fuels (biomass) have increased by almost 3% per year during the 80s before stabilisation, their share decreased from 7% in 1980 to 5% in 1993.

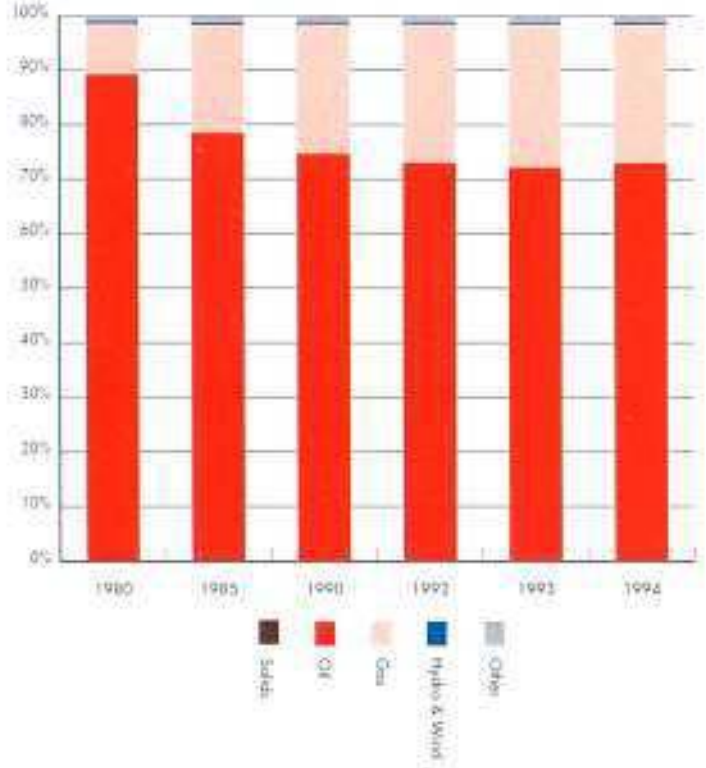


Gross inland consumption closely followed the evolution of final demand, with an average annual increase of almost 5.6% until 1993, but the consumption dropped by 1.9% in 1994. As for final demand, however, the highest rate of growth occurred in the first half of the 80s with about 8% per year. There was a general increase for all primary fuels, specially natural gas with 8.5% per year average growth since 1990. This leads to a share of gas in total primary supply of 36% in 1994 (24% in 1980). In 1994, the shares of the other fossil fuels in gross consumption were: oil with 57% (66% in 1980); solids with 2% (2% in 1980) and renewable sources with 5% (7% in 1980).

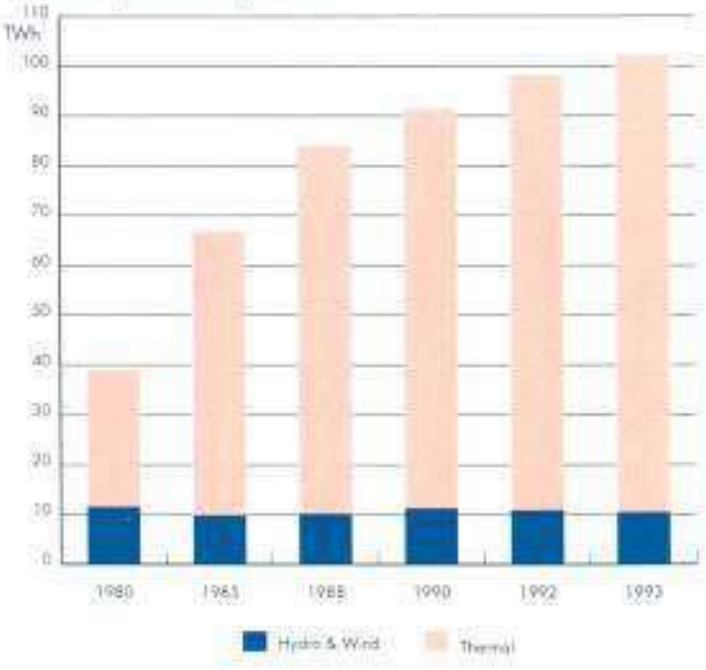


Domestic **Energy production** is dominated by oil (73% of total production in 1994) mainly produced by Libya (39% of the total), Algeria (32%) and Egypt (26%). The evolution of crude oil production was marked by a significant drop in the first half of the 1980s in relation with the reduction of OPEC's share in world oil trade. In 1992 oil production recovered its 1980 level but slowed down by about 1.2% in 1993 and 1994. The second most important fuel being produced is natural gas (25% of total in 1994), with 75% of total production covered

Primary Production : Fuel shares



Electricity Production by Main Source



by Algeria, the seventh worldwide producer in 1994. Unlike oil, the production of gas has steadily increased over the period by 10% per year on average, but also with a slowing trend. For the first time production slowed down by 5.4% in 1994. There is no nuclear energy. Hydro power production has been increasing slowly in the period. Biomass production increased by about 3% per year during the 80s, and has been stable since then.

North Africa is quite stable as a **net exporter of energy.** Algeria is the largest North African exporter in 1994 with 48% of total exports from this region. Libya, which ranked second in 1994 with 39%, was the largest exporter in 1980 with 57% of total region exports. On the other hand, Morocco is a net importer, with a degree of dependency approaching 90% of its primary energy needs. Crude oil exports from this region in 1993 came from: Libya with 53% (61% in 1980); Algeria with 31% (27% in 1980); Egypt with 23% (12% in 1980). Crude oil exports are complemented with refined products exports. These increased by about 10% per year on average since 1980. Algeria, by far the largest natural gas exporter of the region (98% of total in 1993) and Libya are the only net exporters of natural gas. Their markets are mainly oriented towards Western Europe.

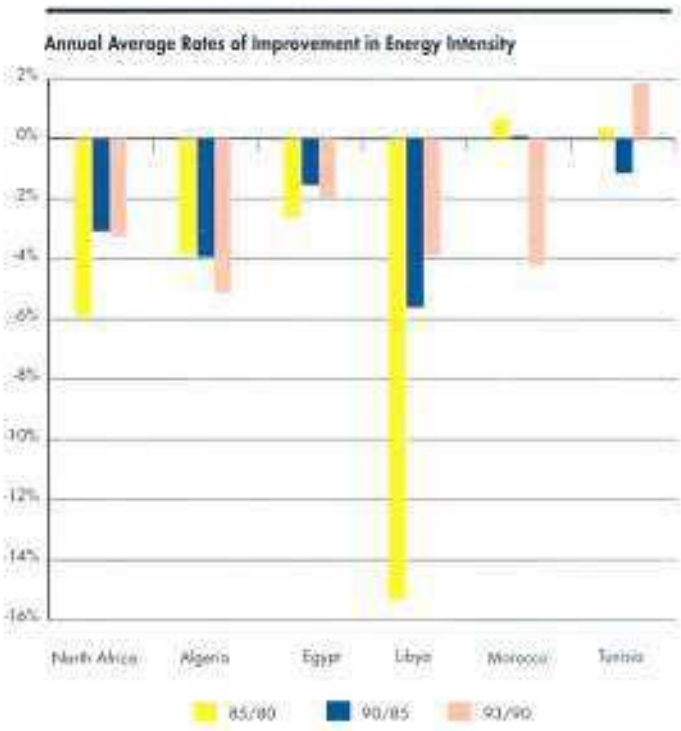
Electricity generation in the region as a whole is mainly based on thermal units (90% of total in 1993 compared with 70% in 1980) and hydro power. Total generation has increased steadily in the period by 7.7% per year on average. All the incremental production has been covered by thermal units, which increased production by roughly 10% per year. There is no nuclear energy. In Egypt, hydro power accounted for 20% of total generation in 1993, representing 92% of the total hydro production of the region.

The increment of **inputs for thermal generation** of electricity has been mainly satisfied by gas and oil. Indeed, gas and oil inputs increased substantially by 10% and 4.6% per year in the period respectively. In 1993 for the first time, gas overtook oil as input for thermal power. In 1993, the shares of fossil fuels in total inputs were: gas with 51% (34% in 1980); oil with 46% (61% in 1980); and solids with 3% (4% in 1980). The average thermal efficiency has improved from 26% in 1980 to 38% in 1990, but decreased to 37% in 1993.

Energy intensity has increased significantly in the period by roughly 4% per year between 1980 and 1992 before jumping by 7.6% in 1993 and declining by 3.9% in 1994. But while Libya increased its intensity by about 9% per year, Morocco increased by less than 1% and Tunisia has been improving its ratio since 1990 by about 2% per year.

Energy consumption per capita on average has increased by about 3% per year in the period but remained the lowest worldwide and in 1994 was 81% below that of the European Union. In general, this ratio is correlated with GDP per capita. However, while consumption per capita has been increasing in all countries, GDP per capita has been declining by about 1.1% per year.

CO2 emissions per capita increased by 3% per year on average between 1980 and 1993, but only reached 20% of the European Union level in 1993, with the exception of Lybia with 74%.



NORTH AFRICA : MAIN INDICATORS

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
North Africa	262.6	355.5	413.3	424.5	453.0	435.2	6.2%	3.1%	1.3%	6.7%	-3.9%
Algeria	211.5	255.1	309.3	320.4	344.2	333.2	3.8%	3.9%	1.8%	7.4%	-3.2%
Egypt	492.6	560.2	604.7	617.8	660.6	617.1	2.6%	1.5%	1.1%	3.7%	-3.7%
Libya	131.8	296.3	386.7	395.4	447.5	399.1	17.6%	5.5%	1.1%	13.2%	-10.8%
Morocco	361.0	351.1	350.5	380.5	400.7	398.9	-0.6%	0.0%	4.2%	5.3%	-0.5%
Tunisia	412.0	404.0	427.8	401.1	413.6	404.7	-0.4%	1.2%	-3.2%	3.1%	-2.1%
Gross Inland Consumption per Capita (toe/inhabitant)											
North Africa	0.49	0.64	0.70	0.71	0.73	0.70	5.6%	2.0%	0.7%	2.6%	-3.9%
Algeria	0.66	0.89	0.96	0.96	0.98	0.93	6.0%	1.6%	-0.1%	2.4%	-5.5%
Egypt	0.37	0.53	0.60	0.60	0.61	0.60	7.6%	2.5%	0.3%	2.2%	-3.0%
Libya	2.38	2.81	2.79	2.83	2.92	2.54	3.3%	-0.1%	0.8%	3.0%	-12.8%
Morocco	0.27	0.25	0.28	0.30	0.31	0.33	-1.5%	2.2%	3.3%	3.5%	9.1%
Tunisia	0.57	0.61	0.66	0.67	0.69	0.68	1.4%	1.7%	0.1%	3.1%	-0.5%
Energy Dependency (%)											
North Africa	-340.8	-197.7	-192.6	-192.4	-175.0	-181.7	-10.3%	-0.5%	-0.1%	-9.0%	3.8%
Algeria	-403.8	-318.4	-325.0	-321.5	-310.2	-307.7	-4.6%	0.4%	-0.5%	-3.5%	-0.8%
Egypt	-101.1	-91.8	-62.2	-66.0	-64.6	-65.4	-1.9%	-7.5%	3.0%	2.1%	1.1%
Libya	-1229.5	-433.9	-499.0	-487.3	-423.9	-477.9	-16.8%	2.8%	-1.2%	-13.0%	12.7%
Morocco	76.4	86.3	89.2	92.3	91.5	91.9	2.5%	0.7%	1.7%	-0.8%	0.4%
Tunisia	-68.4	-50.1	-8.0	-13.7	1.0	11.2	-6.0%	-30.7%	30.6%		1019.8%
Share of Total Gross Inland Consumption (%)											
Algeria	27.9	29.5	29.5	29.1	29.1	28.7	1.1%	0.0%	-0.7%	0.0%	-1.5%
Egypt	35.9	38.7	39.2	38.8	38.5	38.8	1.5%	0.2%	-0.5%	-0.6%	0.9%
Libya	16.3	16.2	15.6	16.1	16.4	15.1	-0.2%	-0.7%	1.5%	1.7%	-8.0%
Morocco	11.7	9.0	9.1	9.5	9.4	10.6	-5.1%	0.1%	2.1%	-0.7%	12.8%
Tunisia	8.2	6.7	6.6	6.6	6.6	6.8	-4.0%	-0.2%	-0.4%	0.6%	3.2%
CO2 Emissions (Million tonnes of CO2)											
North Africa	111.0	164.0	198.8	208.8	212.3	na	8.1%	3.9%	2.5%	1.6%	na
Algeria	31.1	49.5	61.0	65.3	60.8	na	9.7%	4.3%	3.4%	-6.8%	na
Egypt	38.7	62.8	75.3	77.3	83.0	na	10.2%	3.7%	1.3%	7.3%	na
Libya	18.7	25.1	29.5	29.6	31.2	na	6.0%	3.3%	0.1%	5.4%	na
Morocco	13.8	16.2	19.7	22.4	23.1	na	3.2%	4.0%	6.7%	2.9%	na
Tunisia	8.7	10.4	13.3	14.3	14.2	na	3.6%	5.0%	3.6%	-0.2%	na
CO2 Emissions (t of CO2/inhabitant)											
North Africa	1.2	1.6	1.7	1.7	1.8	na	5.4%	1.8%	0.0%	2.7%	na
Algeria	1.7	2.3	2.4	2.5	2.3	na	6.4%	1.6%	1.1%	-9.0%	na
Egypt	0.9	1.3	1.4	1.4	1.5	na	8.1%	1.7%	0.7%	5.3%	na
Libya	6.2	6.6	6.5	6.1	6.2	na	1.5%	-0.4%	-3.3%	1.8%	na
Morocco	0.7	0.7	0.8	0.9	0.9	na	0.8%	1.8%	4.5%	0.7%	na
Tunisia	1.4	1.4	1.6	1.7	1.6	na	1.2%	2.6%	1.2%	-2.5%	na

NORTH AFRICA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	205.5	199.2	238.0	250.2	249.9	244.6	-0.6%	3.6%	2.5%	-0.1%	-2.1%
Solids	0.4	0.4	0.3	0.4	0.3	0.4	1.3%	-7.8%	8.9%	-4.6%	7.6%
Oil	182.9	156.0	177.5	182.3	180.0	178.1	-3.1%	2.6%	1.4%	-1.3%	-1.1%
Natural gas	19.1	39.4	56.6	63.7	65.7	62.2	15.6%	7.5%	6.1%	3.2%	-5.4%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	1.0	0.9	1.0	0.9	0.9	1.0	-3.1%	2.7%	-1.8%	-3.6%	12.0%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	2.1	2.5	2.8	2.9	2.9	3.0	4.0%	1.8%	2.4%	1.7%	1.1%
Net Imports	-156.6	-130.8	-157.5	-165.3	-160.6	-163.0	-3.5%	3.8%	2.4%	-2.8%	1.5%
Solids	0.6	1.9	2.3	2.4	2.3	1.5	27.6%	3.7%	1.3%	-1.1%	-35.3%
Oil	-149.0	-111.9	-130.2	-133.2	-128.6	-134.2	-5.6%	3.1%	1.2%	-3.5%	4.3%
Crude oil	-141.8	-93.1	-104.9	-106.7	-103.3	na	-8.1%	2.4%	0.9%	-3.2%	na
Oil products	-7.2	-18.8	-25.3	-26.5	-25.3	na	21.2%	6.1%	2.4%	-4.4%	na
Natural gas	-8.2	-20.8	-29.6	-34.4	-34.3	-30.4	20.6%	7.3%	7.7%	-0.3%	-11.4%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-11.1%	-	-	-
Gross Inland Consumption	44.5	65.8	81.1	85.8	90.0	88.3	8.1%	4.3%	2.8%	4.9%	-1.9%
Solids	1.1	2.2	2.7	2.5	2.7	2.0	14.7%	4.2%	-4.3%	7.3%	-27.1%
Oil	29.3	41.6	47.7	50.2	52.0	50.5	7.2%	2.8%	2.6%	3.6%	2.9%
Natural gas	10.9	18.6	26.9	29.3	31.4	31.8	11.2%	7.7%	4.2%	7.3%	1.3%
Other (1)	3.1	3.4	3.7	3.8	3.8	4.0	1.9%	2.0%	1.2%	0.6%	3.4%
Electricity Generation in TWh	39.1	66.9	91.4	98.1	102.0	na	11.4%	6.4%	3.6%	4.0%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	11.6	9.9	11.3	10.9	10.5	na	-3.1%	2.7%	-1.8%	-3.6%	na
Thermal	27.5	57.0	80.1	87.2	91.5	na	15.7%	7.0%	4.3%	4.9%	na
Generation Capacity in GWe	10.0	15.7	24.0	25.8	26.5	na	9.5%	8.8%	3.8%	2.4%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	3.4	3.4	3.7	3.9	3.9	na	0.0%	1.8%	2.0%	-0.3%	na
Thermal	6.6	12.3	20.3	22.0	22.6	na	13.4%	10.5%	4.1%	2.9%	na
Average Load Factor in %	47.7	52.8	45.1	45.3	46.2	na	2.1%	-3.1%	0.2%	2.0%	na
Fuel Inputs for Thermal Power Generation	9.0	16.0	20.5	22.6	25.2	na	12.2%	5.1%	5.0%	11.4%	na
Solids	0.4	0.3	0.7	0.6	0.7	na	-1.0%	15.3%	-6.0%	14.6%	na
Oil	5.5	9.2	11.5	12.3	12.7	na	10.8%	4.5%	3.2%	3.2%	na
Gas	3.1	6.4	8.3	9.7	11.8	na	15.5%	5.2%	8.3%	21.7%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	26.2	30.6	33.6	33.1	31.2	na	3.2%	1.8%	-0.7%	-5.8%	na
Non-Energy Uses	1.7	2.8	3.0	3.1	3.4	na	10.1%	1.5%	0.4%	9.9%	na
Total Final Energy Demand	28.7	41.2	47.8	50.9	53.5	na	7.5%	3.1%	3.1%	5.1%	na
Solids	0.7	1.6	1.7	1.7	1.6	na	18.9%	0.7%	1.8%	-5.4%	na
Oil	20.8	28.4	31.3	32.4	32.8	na	6.4%	2.0%	1.8%	1.0%	na
Gas	2.4	4.1	5.5	6.2	8.2	na	11.6%	5.7%	6.7%	31.0%	na
Electricity	2.8	4.5	6.6	7.6	8.0	na	10.3%	8.0%	7.0%	4.7%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	2.1	2.5	2.8	2.9	2.9	na	4.0%	1.8%	2.4%	1.9%	na
CO2 Emissions in Mt of CO2	111.0	164.0	198.8	208.8	212.3	na	8.1%	3.9%	2.5%	1.6%	na
Indicators											
Population (Million)	91.30	102.92	115.10	120.14	122.80	125.41	2.4%	2.3%	2.2%	2.2%	2.1%
GDP (Index 1985=100)	91.5	100.0	106.1	109.3	108.5	109.9	1.8%	1.2%	1.5%	-0.7%	1.3%
Gross Inl Cons./GDP (toe/1985 MECU)	262.6	355.5	413.3	424.5	453.0	435.2	6.2%	3.1%	1.3%	6.7%	-3.9%
Gross Inl Cons./Capita (toe/inhabitant)	0.49	0.64	0.70	0.71	0.73	0.70	5.6%	2.0%	0.7%	2.6%	-3.9%
Electricity Generated/Capita (kWh/inhabitant)	428	650	794	817	832	na	8.7%	4.1%	1.4%	1.9%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	1.2	1.6	1.7	1.7	1.8	na	5.4%	1.8%	0.0%	2.7%	na
Import Dependency %	-340.8	-197.7	-192.6	-192.4	-175.0	-181.7	-10.3%	0.5%	0.1%	9.0%	3.8%

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

ALGERIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	67.1	83.3	103.5	108.0	109.0	104.3	4.4%	4.4%	2.1%	1.0%	-4.3%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	47.9%	-21.2%	172.4%	-100.0%	-
Oil	53.9	52.0	58.8	58.0	58.0	57.4	-0.7%	2.5%	-0.7%	0.1%	-1.1%
Natural gas	12.8	30.8	44.3	49.5	50.5	46.4	19.3%	7.5%	5.7%	2.1%	-8.1%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	0.0	0.1	0.9	0.0	0.0	0.0	20.4%	-26.9%	21.4%	77.4%	-53.0%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.3	0.4	0.4	0.5	0.5	0.5	3.1%	2.8%	2.8%	2.6%	4.2%
Net Imports	-51.8	-62.9	-79.3	-81.6	-82.3	-79.0	4.0%	4.7%	1.4%	1.0%	-4.0%
Solids	0.1	0.8	0.6	0.8	0.5	0.5	68.7%	-5.3%	9.7%	-36.2%	-6.4%
Oil	-45.5	-43.3	-50.3	-48.7	-49.0	-49.0	-1.0%	3.0%	-1.6%	0.7%	0.0%
Crude oil	-38.8	-28.7	-32.2	-30.7	-31.8	-31.9	-5.9%	2.3%	-2.3%	3.5%	0.3%
Oil products	-6.8	-14.7	-18.1	-18.0	-17.3	-17.2	16.7%	4.3%	-0.2%	-4.1%	-0.6%
Natural gas	-6.3	-20.4	-29.6	-33.5	-33.7	-30.4	26.6%	7.8%	6.4%	0.4%	-9.8%
Electricity	0.0	0.0	0.0	-0.1	-0.1	-0.1	-	-	293.3%	33.7%	-9.4%
Gross Inland Consumption	12.4	19.4	24.0	25.0	26.2	25.3	9.3%	4.3%	2.2%	4.9%	-3.4%
Solids	0.1	0.8	0.8	0.6	0.5	0.5	44.7%	0.1%	-14.2%	-11.9%	5.4%
Oil	5.5	7.7	8.1	8.1	8.5	8.3	7.2%	0.9%	0.0%	5.0%	-2.0%
Natural gas	6.5	10.5	14.7	16.0	16.8	16.1	10.1%	7.0%	4.3%	5.5%	-4.5%
Other (1)	0.4	0.4	0.4	0.4	0.4	0.4	4.7%	0.2%	-5.0%	-0.4%	3.5%
Electricity Generation in TWh	7.1	12.3	16.0	18.3	19.4	19.9	11.5%	5.4%	6.9%	6.0%	2.6%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	0.3	0.6	0.1	0.2	0.4	0.2	20.2%	26.9%	21.4%	77.4%	-53.0%
Thermal	6.9	11.6	15.9	18.1	19.0	19.7	11.1%	6.4%	6.8%	5.2%	3.6%
Generation Capacity in GWe	2.0	3.5	4.7	5.4	5.8	na	12.1%	5.6%	7.4%	8.3%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	0.3	0.3	0.3	0.3	0.3	na	0.0%	0.0%	0.0%	-4.2%	na
Thermal	1.7	3.3	4.4	5.1	5.5	na	13.6%	6.0%	7.8%	9.0%	na
Average Load Factor in %	40.5	39.5	39.2	38.9	38.1	na	-0.5%	-0.2%	-0.4%	-2.1%	na
Fuel Inputs for Thermal Power Generation	2.3	3.9	3.8	4.2	5.3	5.6	11.2%	-0.6%	5.1%	27.8%	5.9%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	0.3	0.4	0.3	0.3	0.2	0.2	5.6%	-0.7%	-5.2%	-29.4%	1.4%
Gas	2.0	3.5	3.4	3.9	5.1	5.4	11.8%	-0.6%	6.1%	32.3%	6.1%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Average Thermal Efficiency in %	25.8	25.7	36.1	37.2	30.7	30.0	-0.1%	7.0%	1.6%	-17.7%	-2.1%
Non-Energy Uses	0.3	0.5	0.5	0.4	1.7	1.4	13.8%	-3.2%	-5.9%	322.6%	-15.5%
Total Final Energy Demand	6.4	10.4	11.8	12.9	13.1	12.5	10.3%	2.5%	4.6%	1.4%	-4.1%
Solids	0.1	0.6	0.6	0.4	0.2	0.3	39.9%	0.8%	-15.8%	-42.8%	13.3%
Oil	4.6	6.9	7.4	7.9	8.0	7.4	8.1%	1.4%	3.8%	0.7%	-7.6%
Gas	0.9	1.9	2.4	3.0	3.2	3.2	16.2%	5.1%	11.7%	5.4%	-0.5%
Electricity	0.4	0.7	1.0	1.0	1.2	1.2	11.1%	6.0%	4.2%	11.4%	2.5%
Heat	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.3	0.4	0.4	0.5	0.5	0.5	3.1%	2.8%	2.8%	2.6%	4.2%
CO2 Emissions in Mt of CO2	31.1	49.5	61.0	65.3	60.8	58.8	9.7%	4.3%	3.4%	-6.8%	-3.4%
Indicators											
Population (Million)	18.74	21.89	24.94	26.10	26.72	27.33	3.2%	2.6%	2.3%	2.4%	2.3%
GDP (Index 1985=100)	77.2	100.0	102.0	102.7	100.3	100.1	5.3%	0.4%	0.4%	-2.4%	-0.2%
Gross Inl Cons./GDP (toe/1985 MECU)	211.5	255.1	309.3	320.4	344.2	333.2	3.8%	3.9%	1.8%	7.4%	-3.2%
Gross Inl Cons./Capita (toe/inhabitant)	0.66	0.89	0.96	0.96	0.98	0.93	6.0%	1.6%	-0.1%	2.4%	-5.5%
Electricity Generated/Capita (kWh/inhabitant)	380	561	641	701	725	728	8.1%	2.7%	4.5%	3.5%	0.3%
CO2 Emissions/Capita (t of CO2/inhabitant)	1.7	2.3	2.4	2.5	2.3	2.2	6.4%	1.6%	1.1%	-9.0%	-5.5%
Import Dependency %	403.8	318.4	325.0	321.5	310.2	307.7	-4.6%	0.4%	-0.5%	-3.5%	-0.8%

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

EGYPT : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	34.2	51.0	54.6	56.5	59.4	59.0	8.3%	1.4%	1.8%	5.1%	-0.6%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	30.9	45.5	46.0	46.6	48.1	47.0	8.0%	0.2%	0.7%	3.1%	-2.1%
Natural gas	1.6	3.7	6.7	8.0	9.4	10.0	18.7%	12.5%	8.9%	18.0%	5.6%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	0.8	0.7	0.9	0.8	0.8	0.9	-2.4%	2.8%	-1.2%	-0.2%	11.1%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.8	0.9	1.0	1.1	1.1	1.1	3.5%	1.6%	3.7%	1.0%	1.0%
Net Imports	-17.2	-24.7	-20.8	-22.9	-23.3	-23.3	7.6%	-3.4%	4.9%	1.9%	0.0%
Solids	0.5	0.7	0.8	0.7	0.9	0.0	8.8%	0.6%	-4.3%	30.9%	-100.0%
Oil	-17.6	-25.5	-21.6	-23.6	-24.2	-23.3	7.6%	-3.3%	4.5%	2.7%	-3.7%
Crude oil	-17.1	-25.1	-19.9	-20.4	-19.9	na	7.9%	-4.5%	1.2%	-2.4%	-
Oil products	-0.5	-0.3	-1.6	-3.1	-4.3	na	-7.8%	37.1%	39.1%	35.9%	-
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Gross Inland Consumption	16.0	25.5	31.8	33.2	34.6	34.3	9.8%	4.5%	2.3%	4.2%	-1.1%
Solids	0.5	0.7	0.8	0.7	0.9	0.0	6.2%	0.8%	-1.6%	20.4%	-100.0%
Oil	12.2	19.3	22.4	22.6	22.4	22.3	9.6%	3.0%	0.4%	-0.9%	-0.5%
Natural gas	1.6	3.7	6.7	8.0	9.4	10.0	18.4%	12.8%	8.9%	18.0%	5.6%
Other (1)	1.6	1.7	1.9	1.9	1.9	2.0	0.6%	2.1%	1.5%	0.8%	5.0%
Electricity Generation in TWh	18.9	31.5	43.5	47.0	49.4	na	10.7%	6.7%	3.9%	5.2%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	9.8	8.7	9.9	9.7	9.7	na	-2.4%	2.8%	-1.2%	-0.2%	na
Thermal	9.1	22.8	33.5	37.3	39.8	na	20.1%	8.0%	5.4%	6.6%	na
Generation Capacity in GWe	6.2	7.1	11.5	11.8	11.9	na	10.7%	10.2%	1.6%	0.2%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	2.4	2.4	2.7	2.8	2.8	na	0.0%	2.3%	1.4%	0.0%	na
Thermal	1.8	4.6	8.7	9.0	9.0	na	20.6%	13.6%	1.7%	0.3%	na
Average Load Factor in %	50.9	50.9	43.3	45.3	47.6	na	0.0%	-3.2%	2.3%	5.0%	na
Fuel Inputs for Thermal Power Generation	3.1	6.2	8.7	9.8	10.7	na	15.1%	7.2%	5.8%	9.3%	na
Solids	0.0	0.0	0.0	0.0	0.0	na	-	#DIV/0!	0.0%	-100.0%	na
Oil	2.2	4.1	4.7	4.7	4.7	na	12.9%	3.2%	0.2%	0.0%	na
Gas	0.8	2.1	4.0	5.0	5.9	na	20.2%	13.6%	12.6%	18.0%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	25.8	31.8	33.1	32.9	32.1	na	4.3%	0.8%	-0.4%	-2.4%	na
Non-Energy Uses	0.9	1.9	2.2	2.3	1.2	na	15.3%	3.7%	2.0%	-48.6%	na
Total Final Energy Demand	11.7	17.3	20.3	20.8	22.4	na	8.2%	3.3%	1.2%	7.7%	na
Solids	0.5	0.7	0.6	0.8	0.9	na	6.3%	-0.6%	11.7%	9.9%	na
Oil	8.7	13.1	14.2	13.7	13.3	na	8.5%	1.6%	-1.6%	-2.9%	na
Gas	0.3	0.6	1.4	1.4	3.1	na	11.2%	18.7%	0.5%	121.2%	na
Electricity	1.3	2.0	3.1	3.9	4.0	na	8.3%	9.6%	10.7%	5.0%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	0.8	0.9	1.0	1.1	1.1	na	3.5%	1.6%	3.7%	1.6%	na
CO2 Emissions in Mt of CO2	38.7	62.8	75.3	77.3	83.0	na	10.2%	3.7%	1.3%	7.3%	na
Indicators											
Population (Million)	43.75	48.25	53.21	55.34	56.43	57.56	2.0%	2.0%	2.0%	2.0%	2.0%
GDP (Index 1985=100)	71.3	100.0	115.6	118.4	119.0	121.4	7.0%	2.9%	1.2%	0.5%	2.0%
Gross Inl Cons./GDP (toe/1985 MECU)	492.6	560.2	604.7	617.8	640.6	617.1	2.6%	1.5%	1.1%	3.7%	-3.7%
Gross Inl Cons./Capita (toe/inhabitant)	0.37	0.53	0.60	0.60	0.61	0.60	7.6%	2.5%	0.3%	2.2%	-3.0%
Electricity Generated/Capita (kWh/inhabitant)	433	652	817	849	876	na	8.5%	4.6%	1.9%	3.2%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	0.9	1.3	1.4	1.4	1.5	na	8.1%	1.7%	-0.7%	5.3%	na
Import Dependency %	-101.1	-91.8	-62.2	-66.0	-64.6	-65.4	-1.9%	-7.5%	3.0%	-2.1%	1.1%

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

LIBYA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	96.7	57.5	73.4	78.5	74.6	74.9	-9.9%	5.0%	3.4%	-5.0%	0.4%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	92.2	52.9	68.0	72.3	68.8	69.1	-10.5%	5.2%	3.1%	-4.9%	0.4%
Natural gas	4.3	4.4	5.2	5.9	5.6	5.6	0.1%	3.4%	7.2%	-6.2%	0.5%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.1	0.3	0.3	0.3	0.3	0.3	14.9%	0.0%	0.0%	0.0%	0.0%
Net Imports	-89.2	-46.1	-63.7	-67.6	-62.8	-63.9	-12.3%	6.6%	3.1%	-7.1%	1.7%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	-87.3	-45.2	-62.8	-65.8	-61.2	-62.4	-12.3%	6.8%	2.4%	-7.0%	2.0%
Crude oil	-86.4	-40.4	-55.8	-58.5	-54.9	-55.7	-14.1%	6.7%	2.4%	-6.1%	1.4%
Oil products	-0.9	-4.8	-7.0	-7.3	-6.3	-6.7	41.2%	7.8%	2.1%	-14.0%	7.1%
Natural gas	-1.9	-1.0	-0.9	-1.8	-1.6	-1.5	-12.7%	-1.0%	43.1%	-12.8%	-7.5%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Gross Inland Consumption	7.2	10.6	12.7	13.8	14.7	13.3	7.9%	3.6%	4.3%	6.6%	-9.7%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	4.7	7.0	8.2	9.5	10.5	8.9	8.4%	3.3%	7.6%	11.0%	-15.0%
Natural gas	2.5	3.4	4.3	4.1	4.0	4.1	6.7%	4.5%	-2.0%	-3.2%	3.8%
Other (1)	0.1	0.3	0.3	0.3	0.3	0.3	14.9%	0.0%	0.0%	0.0%	0.0%
Electricity Generation in TWh	4.8	11.8	16.8	17.0	17.0	17.8	19.6%	7.2%	0.4%	0.3%	4.7%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Thermal	4.8	11.8	16.8	17.0	17.0	17.8	19.6%	7.2%	0.4%	0.3%	4.7%
Generation Capacity in GWe	1.2	1.5	4.1	4.6	4.6	na	4.5%	22.9%	5.9%	0.0%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Thermal	1.2	1.5	4.1	4.6	4.6	na	4.5%	22.9%	5.9%	0.0%	na
Average Load Factor in %	47.2	92.6	46.8	42.1	42.2	na	14.5%	-12.8%	-5.2%	0.3%	na
Fuel Inputs for Thermal Power Generation	1.7	3.1	4.4	4.8	5.2	4.3	12.4%	7.4%	3.6%	8.8%	-16.7%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	1.7	3.1	4.4	4.8	5.2	4.3	12.4%	7.4%	3.6%	8.8%	-16.7%
Gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Average Thermal Efficiency in %	23.9	32.7	32.5	30.5	28.1	35.3	6.5%	-0.2%	-3.1%	-7.8%	25.7%
Non-Energy Uses	0.3	0.2	0.1	0.1	0.1	0.1	-6.8%	-9.5%	-14.4%	-9.1%	12.0%
Total Final Energy Demand	3.9	6.0	6.5	6.9	7.6	7.7	8.8%	1.8%	2.9%	9.7%	1.3%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	2.4	3.3	3.5	3.8	4.4	4.4	6.7%	1.6%	3.7%	16.5%	-0.3%
Gas	1.0	1.4	1.3	1.4	1.4	1.5	7.3%	-2.2%	4.1%	3.1%	3.2%
Electricity	0.4	1.0	1.4	1.5	1.5	1.5	19.6%	7.2%	0.4%	0.3%	4.7%
Heat	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.1	0.3	0.3	0.3	0.3	0.3	14.9%	0.0%	0.0%	0.0%	0.0%
CO2 Emissions in Mt of CO2	18.7	25.1	29.5	29.6	31.2	35.6	6.0%	3.3%	0.1%	5.4%	14.1%
Indicators											
Population (Million)	3.04	3.79	4.55	4.87	5.04	5.22	4.5%	3.7%	3.5%	3.5%	3.5%
GDP (index 1985=100)	153.4	100.0	91.5	97.4	91.8	92.9	-8.2%	-1.8%	3.2%	-5.8%	1.2%
Gross Inl Cons./GDP (toe/1985 MECU)	131.8	296.3	386.7	395.4	447.5	399.1	17.6%	5.5%	1.1%	13.2%	-10.8%
Gross Inl Cons./Capita (toe/inhabitant)	2.4	2.8	2.8	2.8	2.9	2.5	3.3%	-0.1%	0.8%	3.0%	-12.8%
Electricity Generated/Capita (kWh/inhabitant)	1588	3128	3696	3479	3370	3408	14.5%	3.4%	-3.0%	-3.1%	1.1%
CO2 Emissions/Capita (t of CO2/inhabitant)	6.2	6.6	6.5	6.1	6.2	6.8	1.5%	-0.4%	-3.3%	1.8%	10.2%
Import Dependency %	-1239.5	-433.9	-499.0	-487.3	-423.9	-477.9	-18.8%	2.8%	-1.2%	13.0%	12.7%

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

MOROCCO : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	0.9	0.9	0.8	0.8	0.7	0.8	-0.1%	2.3%	-0.8%	-2.7%	7.9%
Solids	0.4	0.4	0.3	0.3	0.3	0.4	0.8%	-7.5%	4.6%	4.9%	7.6%
Oil	0.0	0.0	0.0	0.0	0.0	0.0	7.9%	-7.4%	-14.4%	-9.1%	-20.0%
Natural gas	0.1	0.1	0.0	0.0	0.0	0.0	7.5%	-11.3%	-35.2%	-2.3%	6.3%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	0.1	0.0	0.1	0.1	0.0	0.1	-20.3%	20.2%	-11.1%	-54.0%	89.6%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.3	0.3	0.3	0.3	0.3	0.3	2.8%	1.5%	1.6%	2.8%	0.0%
Net Imports	4.0	5.2	6.6	7.5	7.8	2.5	5.3%	5.1%	6.6%	3.2%	-68.1%
Solids	0.0	0.3	0.8	0.8	0.9	1.0	-	24.1%	0.4%	4.9%	15.0%
Oil	4.1	4.9	5.8	6.6	6.8	1.4	3.9%	3.4%	7.0%	3.0%	-79.1%
Crude oil	4.1	5.0	5.9	6.6	6.4	0.5	3.9%	3.4%	5.9%	-3.0%	-92.2%
Oil products	0.0	-0.1	-0.1	0.0	0.4	0.9	6.6%	4.7%	-	1000.1%	115.6%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	0.0	0.0	0.0	0.1	0.1	0.1	-	-	200.8%	10.2%	-22.8%
Gross Inland Consumption	5.2	5.9	7.4	8.1	8.4	9.4	2.7%	4.4%	5.0%	4.2%	10.7%
Solids	0.4	0.7	1.2	1.1	1.2	1.4	11.2%	11.0%	-0.4%	8.8%	11.3%
Oil	4.3	4.8	5.7	6.5	6.7	7.5	2.1%	3.5%	6.2%	4.1%	11.1%
Natural gas	0.1	0.1	0.0	0.0	0.0	0.0	7.5%	-11.3%	-35.2%	-2.3%	6.3%
Other (1)	0.4	0.3	0.4	0.5	0.5	0.5	-2.7%	5.1%	6.6%	5.5%	3.0%
Electricity Generation in TWh	5.2	7.3	9.6	9.7	9.9	11.1	7.0%	5.6%	0.5%	2.0%	12.0%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	1.5	0.5	1.2	1.0	0.4	0.8	-20.3%	20.2%	-11.1%	-54.0%	89.6%
Thermal	3.7	6.9	8.4	8.8	9.5	10.3	12.9%	4.2%	2.0%	8.1%	8.4%
Generation Capacity in GWe	1.6	2.3	2.4	2.6	2.7	na	7.2%	0.8%	5.5%	3.9%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	0.6	0.6	0.6	0.7	0.7	na	0.2%	0.5%	5.2%	0.0%	na
Thermal	1.0	1.6	1.7	1.9	2.0	na	10.8%	1.0%	5.6%	5.3%	na
Average Load Factor in %	37.6	37.1	46.7	42.3	41.6	0.0	-0.3%	4.7%	-4.7%	-1.9%	na
Fuel Inputs for Thermal Power Generation	1.1	1.7	2.2	2.4	2.6	2.9	10.0%	5.2%	3.8%	9.9%	10.5%
Solids	0.4	0.3	0.7	0.6	0.7	0.8	-1.0%	15.3%	-6.0%	14.8%	11.3%
Oil	0.7	1.4	1.5	1.8	1.9	2.1	14.3%	1.9%	8.2%	8.1%	10.2%
Gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Average Thermal Efficiency in %	30.2	34.5	32.8	31.7	31.2	30.6	2.7%	-1.0%	-1.7%	-1.6%	-1.9%
Non-Energy Uses	0.1	0.1	0.2	0.2	0.2	0.3	-1.1%	11.1%	5.7%	-6.3%	26.5%
Total Final Energy Demand	4.0	4.2	4.9	5.8	5.7	6.2	1.1%	3.4%	8.1%	-0.6%	7.2%
Solids	0.0	0.3	0.4	0.4	0.5	0.5	61.9%	2.3%	9.7%	1.1%	10.6%
Oil	3.2	3.0	3.5	4.2	4.1	4.4	-1.8%	3.4%	9.0%	-1.3%	7.2%
Gas	0.1	0.1	0.0	0.0	0.0	0.0	7.5%	-11.3%	-35.2%	-2.3%	6.3%
Electricity	0.4	0.5	0.7	0.8	0.8	0.9	6.6%	6.6%	8.0%	0.8%	8.7%
Heat	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.3	0.3	0.3	0.3	0.3	0.3	2.8%	1.5%	1.6%	2.8%	0.0%
CO2 Emissions in Mt of CO2	13.8	16.2	19.7	22.4	23.1	25.1	3.2%	4.0%	6.7%	2.9%	8.7%
Indicators											
Population (Million)	19.38	21.82	24.33	25.38	25.95	26.49	2.4%	2.2%	2.1%	2.2%	2.1%
GDP (index 1985=100)	85.2	100.0	124.4	126.4	125.1	139.1	3.3%	4.5%	0.8%	-1.1%	11.2%
Gross Inl Cons./GDP (toe/1985 MECU)	361.0	351.1	350.5	380.5	400.7	398.9	-0.6%	0.0%	4.2%	5.3%	-0.5%
Gross Inl Cons./Capita (toe/inhabitant)	0.3	0.2	0.3	0.3	0.3	0.3	-1.5%	2.2%	3.3%	3.3%	9.1%
Electricity Generated/Capita (kWh/inhabitant)	271	337	396	383	382	419	4.5%	3.3%	-1.6%	-0.3%	9.7%
CO2 Emissions/Capita (t of CO2/inhabitant)	0.71	0.74	0.81	0.88	0.89	0.95	0.8%	1.8%	4.5%	0.7%	6.5%
Import Dependency %	76.4	86.3	89.2	92.3	91.5	91.9	2.5%	0.7%	1.7%	-0.8%	0.4%

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

TUNISIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	6.7	6.6	5.8	6.4	6.1	5.5	-0.3%	-2.7%	5.3%	-4.8%	-9.4%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	5.8	5.6	4.7	5.4	5.2	4.6	-0.8%	-3.3%	7.5%	-4.9%	-11.1%
Natural gas	0.4	0.4	0.3	0.2	0.2	0.2	-2.8%	-3.9%	-15.6%	-25.0%	-1.7%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	0.0	0.0	0.0	0.0	0.0	0.0	36.0%	-16.5%	21.6%	-1.6%	-37.5%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.6	0.6	0.7	0.7	0.8	0.8	2.6%	2.4%	1.4%	2.2%	0.0%
Net Imports	2.5	2.2	-0.4	-0.8	0.1	0.7	-2.5%	-27.8%	33.8%	-	1034.1%
Solids	0.1	0.1	0.1	0.1	0.1	0.1	1.3%	3.7%	0.0%	0.0%	-17.4%
Oil	2.6	2.8	-1.4	-1.8	-1.0	-0.9	1.7%	-12.7%	14.0%	-43.4%	-12.8%
Crude oil	-3.6	-3.9	-2.9	-3.8	-3.1	-2.6	1.6%	-5.4%	13.4%	-17.3%	-16.7%
Oil products	1.0	1.1	1.5	1.9	2.1	1.7	1.2%	7.1%	12.8%	7.6%	-18.7%
Natural gas	0.0	0.5	0.9	1.0	1.0	1.5	-	11.6%	4.4%	1.7%	49.0%
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-24.7%	-	52.3%
Gross Inland Consumption	3.6	4.4	5.4	5.6	5.9	6.0	3.8%	4.1%	2.5%	5.5%	1.3%
Solids	0.1	0.1	0.1	0.1	0.1	0.1	1.3%	3.7%	0.0%	0.0%	-17.4%
Oil	2.7	2.7	3.3	3.6	3.9	3.5	0.6%	4.0%	3.8%	8.9%	-10.4%
Natural gas	0.4	0.9	1.2	1.2	1.2	1.7	21.4%	5.9%	0.6%	-3.4%	41.4%
Other (1)	0.6	0.6	0.7	0.7	0.8	0.8	2.9%	2.1%	1.5%	4.7%	1.0%
Electricity Generation in TWh	2.9	4.0	5.5	6.2	6.3	6.7	6.6%	6.6%	5.7%	2.2%	6.4%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & wind	0.0	0.1	0.0	0.1	0.1	0.0	35.1%	-16.4%	21.5%	-1.5%	-37.5%
Thermal	2.9	3.9	5.5	6.1	6.2	6.7	6.2%	7.0%	5.5%	2.2%	6.8%
Generation Capacity in GWe	1.0	1.4	1.4	1.4	1.5	na	8.0%	0.0%	0.0%	3.3%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	0.1	0.1	0.1	0.1	0.1	na	0.0%	0.0%	0.0%	0.0%	na
Thermal	0.9	1.4	1.4	1.4	1.4	na	8.4%	0.0%	0.0%	3.7%	na
Average Load Factor in %	34.6	32.4	44.7	49.9	51.0	na	-1.3%	6.6%	5.7%	2.1%	na
Fuel Inputs for Thermal Power Generation	0.9	1.1	1.4	1.5	1.4	1.6	5.4%	3.8%	6.1%	-8.6%	10.9%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	0.6	0.3	0.5	0.7	0.6	0.3	-10.8%	7.4%	21.1%	-11.7%	-52.5%
Gas	0.3	0.8	0.9	0.8	0.8	1.3	23.7%	2.1%	-3.1%	-6.0%	61.9%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Average Thermal Efficiency in %	28.5	29.6	34.5	34.1	38.1	36.7	0.7%	3.1%	-0.6%	11.8%	-3.7%
Non-Energy Uses	0.1	0.1	0.0	0.0	0.2	0.1	-4.7%	-39.8%	9.8%	2637.7%	-11.6%
Total Final Energy Demand	2.8	3.3	4.2	4.5	4.6	4.7	3.5%	5.2%	2.5%	3.8%	1.9%
Solids	0.1	0.1	0.1	0.1	0.1	0.1	1.3%	3.7%	0.0%	0.0%	-17.4%
Oil	1.9	2.2	2.8	2.8	2.9	3.0	3.4%	4.7%	1.6%	3.4%	1.5%
Gas	0.1	0.1	0.3	0.4	0.4	0.4	10.0%	18.1%	9.4%	6.2%	3.0%
Electricity	0.2	0.3	0.4	0.4	0.5	0.5	5.0%	7.1%	6.0%	8.3%	8.2%
Heat	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.6	0.6	0.7	0.7	0.8	0.8	2.6%	2.4%	1.4%	2.2%	0.0%
CO2 Emissions in Mt of CO2	8.7	10.4	13.3	14.3	14.2	14.6	3.6%	5.0%	3.6%	-0.2%	2.3%
Indicators											
Population (Million)	6.38	7.18	8.07	8.46	8.66	8.82	2.4%	2.4%	2.4%	2.4%	1.8%
GDP (Index 1985=100)	81.5	100.0	115.6	129.4	132.5	137.1	4.2%	2.9%	5.8%	2.3%	3.5%
Gross Inl Cons./GDP (toe/1985 MECU)	412.0	404.0	427.8	401.1	413.6	404.7	-0.4%	1.2%	-3.2%	3.1%	-2.1%
Gross Inl Cons./Capita (toe/inhabitant)	0.6	0.6	0.7	0.7	0.7	0.7	1.4%	1.7%	0.1%	3.1%	0.5%
Electricity Generated/Capita (kWh/inhabitant)	458	560	686	731	729	762	4.1%	4.1%	3.2%	-0.2%	4.4%
CO2 Emissions/Capita (t of CO2/inhabitant)	1.4	1.4	1.6	1.7	1.6	1.7	1.2%	2.6%	1.2%	-2.5%	0.5%
Import Dependency %	-68.4	-50.1	-8.0	-13.7	1.0	11.2	-6.0%	-30.7%	30.6%	-	1019.8%

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

OTHER AFRICA

This very large region comprises countries with varied economic structures. The region is one of the richest in the world for natural resources: there are countries with large energy reserves (coal in South Africa, crude oil in Nigeria, Gabon and Angola). However, most of the countries are still in a rather low stage of economic development, which has conditioned both the level of energy demand and its fuel mix. In fact, gross inland energy consumption per capita has been fairly stable at slightly more than 0.5 toe per inhabitant (3.6 in the European Union in 1993) and non-commercial fuels (biomass) still accounted for 46% of total energy demand in 1993 as in 1980.

The region is increasingly a net exporter of solids (mainly South Africa) and crude oil, but a net importer of oil products. There is no external trade for natural gas. The exports of solids and crude oil represented, in 1994, 32% and 66% of their production respectively (27% and 69% in 1980).

Gross inland energy consumption has increased by 3.3% per year during the 80s but only by 0.9% per year between 1990 and 1993. Demand jumped by 4.8% in 1994. The increments have been covered mainly by biomass (43% of the increase), solids (38%) and oil (7%). Natural gas, although increased by 14% per year, only accounted for 8% of the total demand increment in the period. There were small contributions from hydro and nuclear, but the latter only developed in South Africa in the early 1980s.

OTHER AFRICA : SUMMARY ENERGY BALANCE

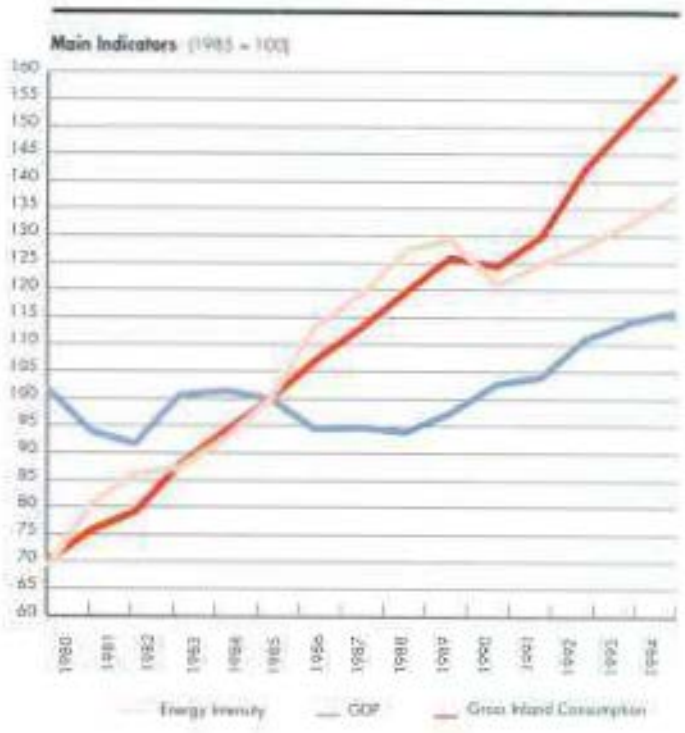
Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	287.2	326.9	382.8	392.0	399.4	413.1	2.6%	3.2%	1.2%	1.9%	3.4%
Solids	71.7	104.6	114.8	109.1	113.5	121.8	7.9%	1.9%	-2.5%	4.1%	7.3%
Oil	127.9	114.4	146.0	154.8	155.2	156.7	-2.2%	5.0%	3.0%	0.3%	1.0%
Natural gas	1.4	3.1	3.5	4.5	6.5	8.3	18.0%	2.2%	14.1%	43.2%	27.7%
Nuclear	0.0	1.4	2.2	2.4	1.9	2.5	-	9.7%	4.9%	-21.9%	30.0%
Hydro & Wind	4.3	3.6	3.8	4.2	4.0	4.0	-3.5%	1.2%	5.4%	-6.2%	1.4%
Geothermal	0.0	0.1	0.3	0.3	0.3	0.3	30.9%	47.2%	-6.9%	0.0%	0.0%
Other	82.0	99.7	112.2	116.7	118.1	119.6	4.0%	2.4%	2.0%	1.2%	1.2%
Net Imports	-101.3	-107.1	-136.6	-144.6	-147.2	-143.0	1.1%	5.0%	2.9%	1.8%	-2.8%
Solids	-19.4	-29.8	-33.1	-33.7	-35.9	-39.6	9.0%	2.1%	1.0%	6.3%	10.4%
Oil	-82.0	-77.4	-103.4	-110.8	-111.3	-103.8	-1.1%	6.0%	3.5%	0.4%	-6.7%
Crude oil	-88.3	-83.9	-107.6	-115.5	-118.7	na	-1.0%	5.1%	3.6%	2.7%	na
Oil products	6.4	6.5	4.2	4.7	7.4	na	0.4%	-8.4%	5.5%	56.7%	na
Natural gas	0.0	0.0	0.0	0.0	0.0	0.4	-	-	-	-	-
Electricity	0.0	0.0	-0.1	0.0	0.0	0.0	-	-	-55.5%	-69.1%	-5.8%
Gross Inland Consumption	175.7	215.4	242.6	248.1	250.3	262.4	4.2%	2.4%	1.1%	0.9%	4.8%
Solids	51.3	73.1	81.2	80.2	79.8	84.3	7.3%	2.1%	-0.6%	-0.5%	5.6%
Oil	36.7	34.3	39.5	39.8	39.7	43.1	-1.3%	2.8%	0.4%	-0.1%	8.5%
Natural gas	1.4	3.1	3.5	4.5	6.5	8.7	18.0%	2.2%	14.1%	43.1%	34.0%
Other (1)	86.3	104.8	118.5	123.6	124.2	126.3	4.0%	2.5%	2.2%	0.5%	1.7%
Electricity Generation in TWh	158.9	196.1	230.1	235.5	240.7	na	4.3%	3.3%	1.2%	2.2%	na
Nuclear	0.0	5.3	8.4	9.3	7.3	na	-	9.7%	4.8%	-21.9%	na
Hydro & wind	49.6	41.4	44.0	48.9	45.9	na	3.5%	1.2%	5.5%	-6.2%	na
Thermal	109.3	149.4	177.7	177.3	187.5	na	6.4%	3.5%	-0.1%	5.8%	na
Generation Capacity in GWe	32.9	42.2	50.2	50.1	51.6	na	5.1%	3.6%	0.1%	3.0%	na
Nuclear	0.0	1.0	1.8	1.8	1.8	na	-	13.8%	0.0%	0.0%	na
Hydro & wind	9.8	13.2	15.1	15.2	15.2	na	6.3%	2.6%	0.4%	0.0%	na
Thermal	23.2	27.9	33.3	33.1	34.6	na	3.8%	3.6%	-0.3%	4.5%	na
Average Load Factor in %	55.1	53.1	52.3	53.6	53.2	na	-0.7%	-0.3%	1.3%	-0.8%	na
Fuel Inputs for Thermal Power Generation	31.4	41.2	48.6	48.5	51.3	na	5.6%	3.4%	-0.1%	5.8%	na
Solids	26.0	36.5	43.5	43.9	46.2	na	5.4%	3.6%	0.4%	5.2%	na
Oil	2.4	2.8	3.0	2.6	2.9	na	3.1%	0.9%	-6.7%	12.1%	na
Gas	1.0	1.9	1.8	1.8	2.0	na	13.8%	0.0%	-2.5%	11.6%	na
Geothermal	0.0	0.0	0.3	0.3	0.3	na	30.4%	47.1%	-6.8%	0.0%	na
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	29.9	31.2	31.4	31.4	31.4	na	0.8%	0.2%	0.0%	0.0%	na
Non-Energy Uses	1.9	2.5	2.9	2.9	1.5	na	4.9%	3.6%	0.0%	-47.8%	na
Total Final Energy Demand	142.3	163.1	183.5	188.6	192.9	na	2.8%	2.4%	1.4%	2.3%	na
Solids	17.8	17.4	17.5	16.8	16.9	na	-0.5%	0.1%	-2.0%	0.3%	na
Oil	30.2	31.1	36.0	36.7	39.1	na	0.6%	2.9%	1.1%	6.5%	na
Gas	0.4	0.8	1.3	1.3	1.4	na	12.6%	11.5%	0.1%	7.2%	na
Electricity	11.8	14.0	16.5	17.0	17.3	na	3.5%	3.3%	1.5%	2.1%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	82.0	99.8	112.3	116.7	118.1	na	4.0%	2.4%	2.0%	1.2%	na
CO2 Emissions in Mt of CO2	284.9	325.3	368.8	371.2	389.9	na	2.7%	2.5%	0.3%	5.0%	na
Indicators											
Population (Million)	373.73	432.21	498.95	527.95	543.79	559.93	3.0%	2.9%	2.9%	3.0%	3.0%
GDP (Index 1985=100)	96.7	100.0	115.4	118.1	119.5	121.9	0.7%	2.9%	1.2%	1.2%	2.0%
Gross Inl Cons./GDP (toe/1985 MECU)	585.4	697.2	680.8	681.1	674.7	693.6	3.6%	-0.5%	0.0%	-0.9%	2.8%
Gross Inl Cons./Capita (toe/inhabitant)	0.47	0.50	0.49	0.47	0.46	0.47	1.3%	-0.5%	-1.6%	-2.7%	1.8%
Electricity Generated/Capita (Wh/inhabitant)	425	454	461	446	443	na	1.3%	0.3%	-1.7%	-0.8%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	0.8	0.8	0.7	0.7	0.7	na	-0.3%	-0.4%	-2.5%	2.0%	na
Import Dependency %	56.5	48.4	54.8	56.6	57.9	53.3	-3.0%	2.5%	1.7%	2.2%	-7.9%

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

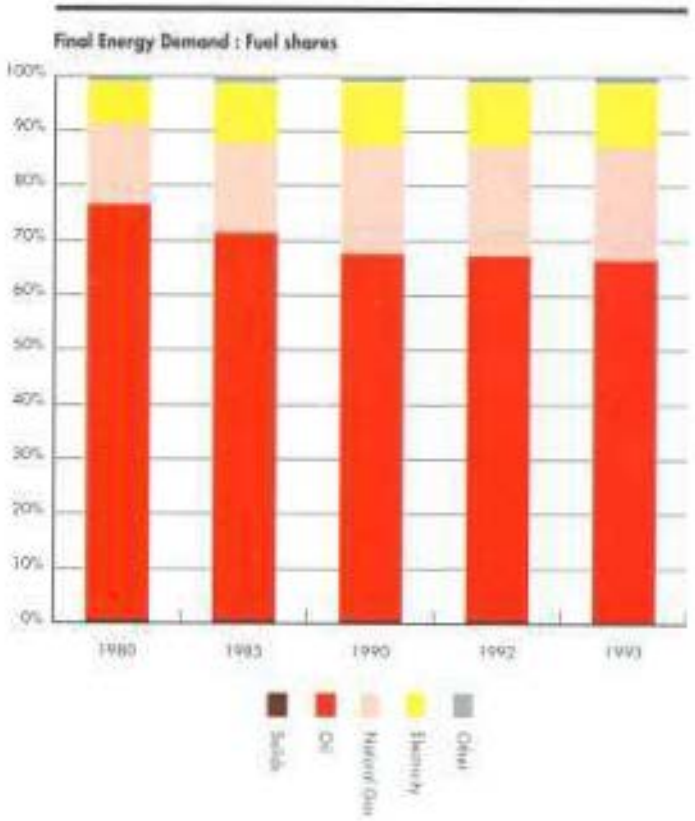
PART IX MIDDLE EAST

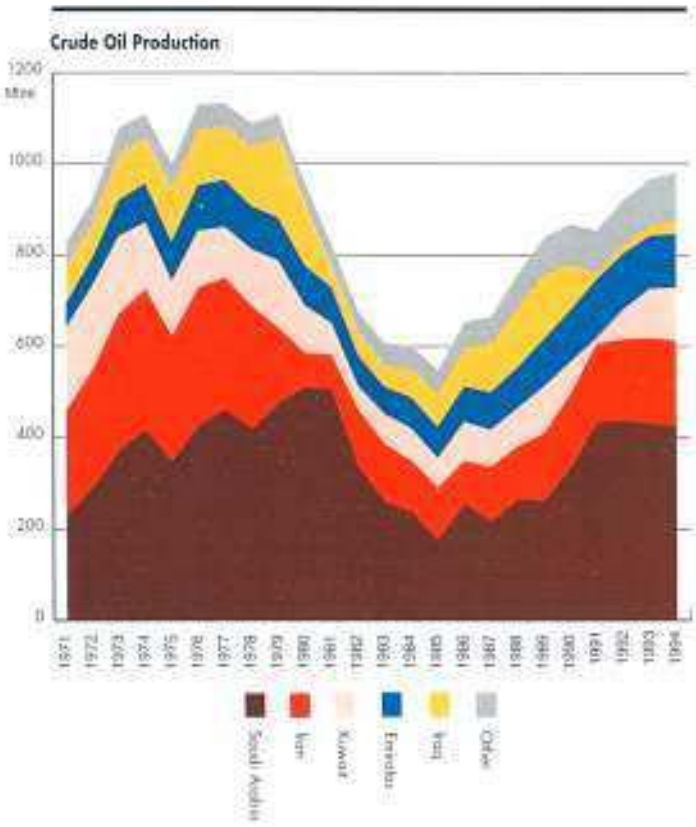
The region under consideration does not correspond to the normal geographical definition since it includes Iran due to the importance of Iranian energy production and exports in the context of the Gulf area. Although some countries of the region are not energy exporters, such as Israel and Lebanon, the Middle East is not only the largest producer and exporter of crude oil in the world, but also where most of the world oil reserves are concentrated. In this context, Iran and the countries of the Gulf Co-operation Council, in particular Saudi Arabia, play a major role.

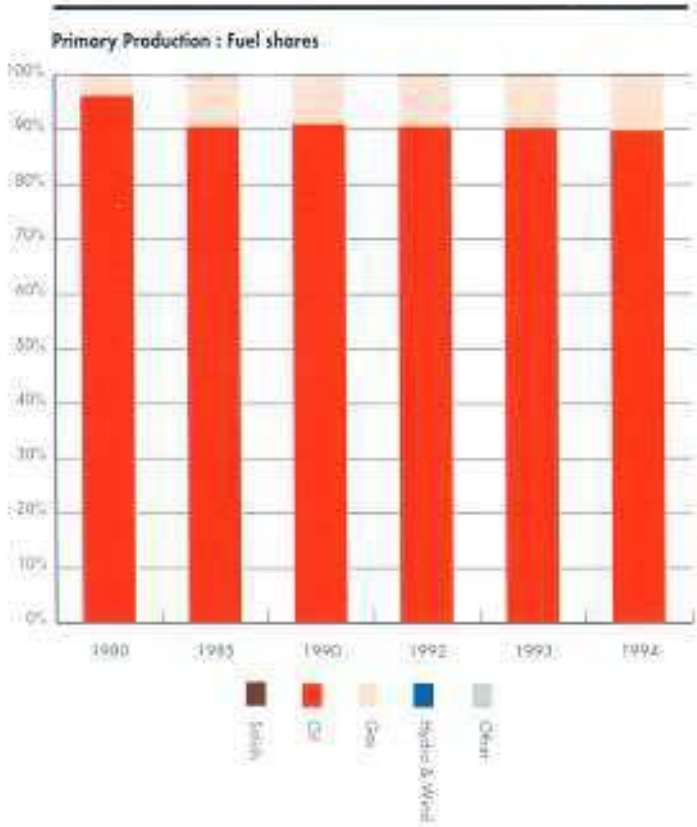
Economic development in this region continues to be mainly influenced by crude oil prices and production. But the relation between the evolution of world oil prices and GDP is not so obvious. In fact between 1980 and 1985, when oil prices peaked, the GDP remained quite stable. The rapid slowdown of oil prices in 1986 by more than 50%, directly affected the GDP which fell by about 5.5%. After three years of stagnation, the GDP started to increase regularly in 1989 at an average yearly rate of 3.6% until 1994 while oil prices remained quite low even during the Gulf war. Since 1991, while Saudi Arabian GDP practically stagnated with a limited growth of 1.2% per year, Iran continued to grow by 3.4% per year.



Final energy consumption has increased by 5.6% per year on average between 1980 and 1993. If we except the Gulf war period which significantly affected the final energy consumption of both Kuwait and Iraq, this growth appears quite regular with even some acceleration since 1991. This is especially true for Iran where final demand increased by about 11% between 1990 and 1993 while Saudi Arabia presented only an average growth of 4.6%. These two countries represented 64% of total final demand in the region in 1993 (58% in 1980). Consumption per fuel shows the major contribution of hydrocarbons and electricity, the contribution both of solids and biomass being limited to only 1% of the total final demand. During the 80s the incremental demand of about 60 Mtoe was covered by oil products (32.4 Mtoe or 54%), natural gas which multiplies its consumption by 2.3 (16.4 Mtoe or 27%) and electricity (10.3 Mtoe or 17%). Since 1990, the increment (30 Mtoe) has been covered by oil products (18 Mtoe or 64%), natural gas (7.6 Mtoe or 26%) and electricity (3.6 Mtoe or 12%). This means that oil is reinforcing its contribution in total energy consumption. In 1993, oil accounted for 66%, gas for 21% and electricity covered 12% of total final needs.





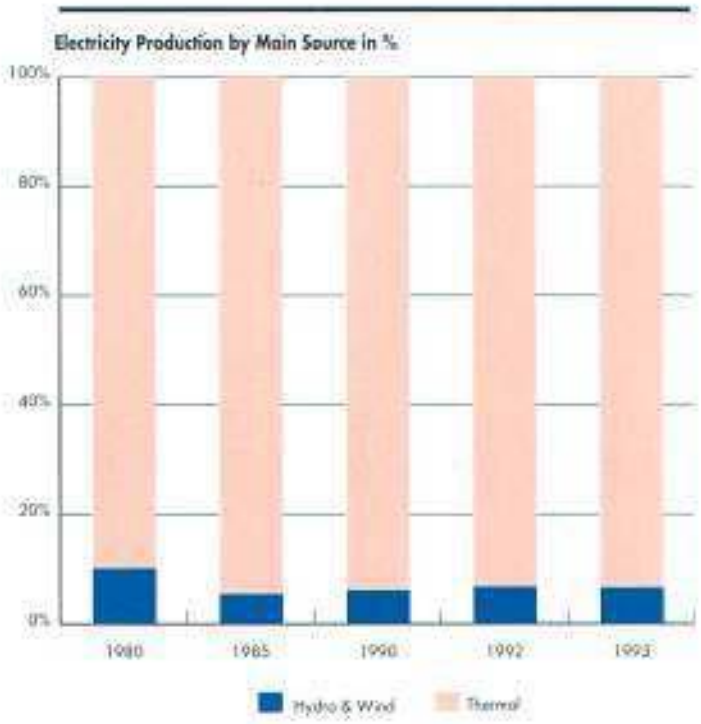


Indigenous energy production is dominated by oil with 90% of total production in 1994 (96% in 1980). The evolution of crude oil production was characterised by: a peak level of 1106 Mtoe in 1974; a drop to 548 Mtoe by 1985, or 51% below the peak; a sustained increase to 1990 of about 10% per year; a drop of 1.5% in 1991 (losses in Iraq and Kuwait not totally compensated by strong increases in Iran and Saudi Arabia); and finally an increase of 7.7% in 1992, 5% in 1993 and only 1.4% in 1994. It must be underlined that since 1980 Saudi Arabia assumed the role of marginal producer, thus showing fluctuations significantly more important than those observed at the regional level. As an illustration, in 1980 its level of production was 510 Mtoe (53% of the Middle East production); in 1985 it was reduced to 176 Mtoe, a drop by 66% reducing its share to only 32% of the total; in 1992 it retrieved a level of 438 Mtoe (48% of the total) to decline to 426 Mtoe in 1994 (43% of the total). In 1994, after Saudi Arabia, Iran was the second producer with 190 Mtoe (19% of total production), followed by the United Arab Emirates with 113 Mtoe (12%) and Kuwait with 104 Mtoe (11%).

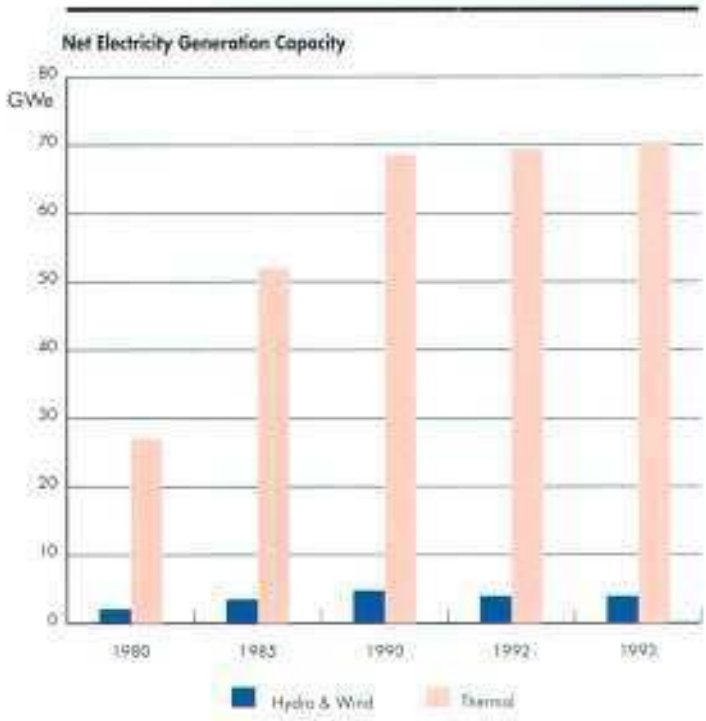
Besides oil, there is some production of natural gas. Iran and Saudi Arabia together accounted for 60% of total gas production in 1994 with 65 Mtoe. There is no nuclear energy, and renewable energy sources (hydro power and biomass) are rather small.

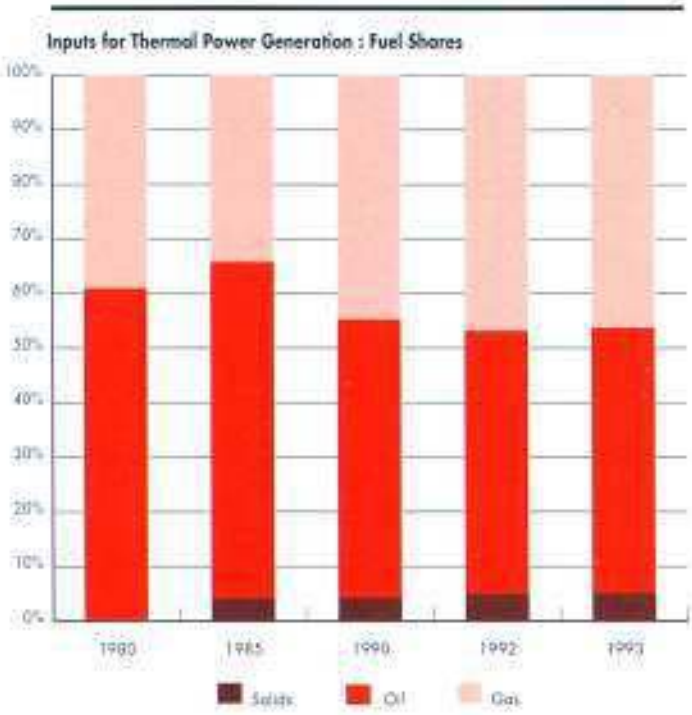
The Middle East is the most important **net exporter of energy** in the world. However, this results mainly from exports of crude oil products, and oil products to a lesser extent. Given the high ratio of exports to production, the profile of exports throughout time is similar to that of production; the level of exports defining in fact the production volumes. The Middle East's share of total crude world trade was 54.2% in 1980 declining to 38.2% in 1985 and reaching 47.6% in 1993. In 1994, for the first time since 1985 this share declined to 46.5%. The share of oil exports on total oil production fell from 89% in 1980 to 73% in 1985 and recovered to 79% in 1994. For the two identified countries these shares were: Iran with 58% in 1980, 63% in 1985 and 67% in 1994; and Saudi Arabia with 94% in 1980, 67% in 1985 and 86% again in 1994. Exports of natural gas from this region, in the form of LNG, remained limited. Finally, the region is a net importer of solid fuels but only limited volumes are concerned.

Electricity generation in the region as a whole is mainly based on thermal units (93% of total in 1993) and some hydro power of which 58% is produced in Iran. Total generation has increased steadily in the period to 1990 by almost 10% per year on average, but with a regular slowdown during the decade. In 1991, as a result of the Gulf war, demand was stable at the regional level. It was compensated by an increase of 10.7% in 1992 and 7.6% in 1993.

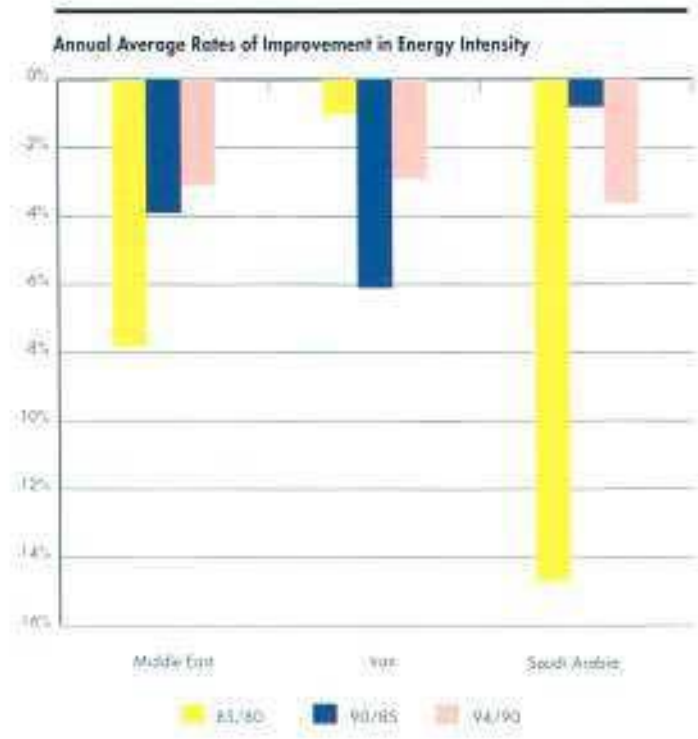


The **total generation capacity** reached 75 GWe in 1993 compared with only 29 GWe in 1980. The rate of expansion was very rapid during the 80s, with a total of 44 GWe almost half of the expansion observed in the European Union during the same period. Since 1990, expansion has been limited inducing a significant improvement of the average load factor (from 37.6% in 1990 to 44% in 1993). This market is dominated by thermal units, mainly gas turbines burning both distillates and natural gas. In 1993, thermal units accounted for 95% of total generation capacity (93% in 1980) and hydro 5% (7% in 1980). There is no nuclear power.





The increment of **inputs for thermal generation** of electricity has been mainly satisfied by gas and oil. The year 1985 was a benchmark in fuel inputs. From 1980 to 1985, oil and gas inputs grew by 11% and 8% per year respectively. Between 1986 and 1990, these fuels increased to 1990 by 1% per year for oil and 10% per year for gas. In addition, solid fuels for power generation penetrated the market, mainly in Israel, but stayed at a relatively low level. Since 1990 the incremental consumption (13 Mtoe) has been covered by gas (7 Mtoe or 52%), oil (5 Mtoe or 39%) and solids (1 Mtoe or 8%). The average thermal efficiency has increased from 28% in 1980 to 34% in 1993.



The rising **energy intensity** indicator for this region shows a behaviour that is typical in fast growing economies. Indeed, fast industrialisation and improving living standards normally lead to an increase in the energy intensity of the economy. Between 1980 and 1994 there was an increase of almost 5% per year (Iran 3.6% per year and Saudi Arabia 6.5% per year). Neither the two main countries, nor the region as a whole present any sign of a slowdown of this rising trend.

Due to a strong increase in population (almost 3.7% per year) the **GDP per capita** declined, with the 1994 level 31% below the 1980 level. In the case of Iran, the big loss in GDP per capita occurred between 1983 and 1988 (a drop 28%), followed by a recovery of 18% to 1992. In Saudi Arabia, GDP per capita dropped significantly between 1980 and 1985 (almost 11% per year) and, since then, it is relatively stable. In 1994 the GDP per capita of Iran and Saudi Arabia were 8% and 45% below their 1980 levels respectively.

In spite of this loss in wealth, the **energy consumption per capita** in the region has increased continuously by about 2.3% in the period, with only a relative slowdown during the second half of the 80s. Compared to the European Union average, only Saudi Arabia presented higher consumption per capita (36% higher in 1994 to be compared to only 8% higher in 1980).

MAIN INDICATORS : COMPARISON

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
Middle East	234.7	341.0	412.6	437.1	452.4	469.0	7.8%	3.9%	2.9%	3.5%	3.7%
Iran	218.9	229.8	309.5	318.3	336.9	359.9	1.0%	6.1%	1.4%	5.9%	6.8%
Saudi Arabia	232.0	460.1	478.8	517.8	531.7	558.4	14.7%	0.8%	4.0%	2.7%	5.0%
European Union	350.9	332.3	304.2	302.1	302.8	296.1	-1.1%	-1.8%	-0.4%	0.2%	2.2%
Gross Inland Consumption per Capita (toe/inhabitant)											
Middle East	1.46	1.70	1.76	1.90	1.96	2.01	3.1%	0.7%	3.9%	3.3%	2.4%
Iran	0.99	1.11	1.19	1.37	1.44	1.51	2.2%	1.5%	7.0%	5.2%	5.3%
Saudi Arabia	3.70	4.13	4.09	4.72	4.79	4.92	2.2%	-0.2%	7.4%	1.5%	2.7%
European Union	3.42	3.46	3.63	3.62	3.60	3.61	0.2%	1.0%	0.0%	-0.6%	0.2%
Energy Dependency (%)											
Middle East	-591.3	-195.2	-283.2	-257.5	-252.7	-242.7	-19.9%	7.7%	-4.6%	-1.8%	-4.0%
Iran	-108.6	-129.2	-146.6	-141.9	-133.3	-125.7	3.5%	2.6%	-1.6%	-6.1%	-5.7%
Saudi Arabia	-1206.0	-214.1	-435.8	-471.0	-445.9	-414.9	-29.2%	15.3%	4.0%	-5.3%	-6.9%
European Union	55.4	41.6	47.5	49.8	47.8	46.2	-5.6%	2.7%	2.4%	-4.0%	-3.2%
GDP/Capita (Thousand 1985 ECU/inhabitant)											
Middle East	6.21	4.99	4.27	4.35	4.34	4.29	-4.3%	-3.1%	1.0%	-0.2%	-1.2%
Iran	4.54	4.82	3.85	4.29	4.26	4.20	1.2%	-4.4%	5.5%	-0.6%	-1.5%
Saudi Arabia	15.93	8.98	8.54	9.12	9.01	8.81	-10.8%	-1.0%	3.3%	-1.2%	-2.3%
European Union	9.7	10.7	12.3	12.0	11.9	12.2	1.8%	2.8%	-1.1%	-0.9%	2.5%
CO2 Emissions (Million tonnes of CO2)											
Middle East	332.8	465.2	585.9	661.9	706.3	na	6.9%	4.7%	6.3%	6.7%	na
Iran	91.3	143.2	176.0	215.0	232.2	na	9.4%	4.2%	10.5%	8.0%	na
Saudi Arabia	93.9	123.1	162.9	179.0	192.6	na	5.5%	5.8%	4.8%	7.6%	na
European Union	3337.0	3110.0	3213.9	3174.1	3121.8	3105.8	-1.4%	0.7%	-0.6%	-1.6%	na
CO2 Emissions (t of CO2/inhabitant)											
Middle East	3.6	4.2	4.3	4.6	4.8	na	2.7%	0.9%	3.2%	3.4%	na
Iran	2.3	2.9	3.0	3.5	3.6	na	4.7%	0.4%	7.6%	6.6%	na
Saudi Arabia	9.8	9.7	10.2	10.7	11.2	na	-0.1%	0.9%	2.6%	5.3%	na
European Union	9.4	8.7	8.8	8.6	8.4	8.4	-1.6%	0.3%	-1.1%	-2.1%	na

MIDDLE EAST: Major trends (1980-1994)

- **Final energy consumption increased by 5.6% per year on overage with even an acceleration since 1991**
- **Incremental demand increasingly covered by oil**
- **Middle East's of total crude world trade reached 46.5%, from 38.5% in 1985 and 54.2% in 1980, Saudi Arabia played the role of marginal producer**
- **Rapid expansion of electricity consumption by almost 9% since 1980**
- **Inputs for thermal generation of electricity dominated by oil and gas**
- **Rising energy intensity without any sign of slowdown**
- **Due to a strong increase in population, declining GDP per capita with the 1994 level 31% below the 1980 level**
- **Energy consumption per capita has increased continuously by 2.3% per year during the period**

MIDDLE EAST : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	999.4	605.3	954.8	1018.6	1071.8	1092.1	-9.5%	9.5%	3.3%	5.2%	1.9%
Solids	0.6	0.8	0.8	0.9	0.9	0.9	6.8%	0.7%	7.5%	1.5%	-3.9%
Oil	960.9	547.5	867.6	920.6	966.7	980.1	-10.6%	9.6%	3.0%	5.0%	1.4%
Natural gas	36.2	54.9	83.9	94.1	101.1	107.6	8.7%	8.8%	5.9%	7.4%	6.5%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	0.8	1.1	1.7	2.1	2.2	2.5	6.0%	9.1%	9.2%	5.1%	14.7%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.9	1.0	0.8	0.9	0.9	0.9	2.2%	-3.6%	3.1%	0.8%	1.2%
Net Imports	-854.3	-401.6	-705.1	-736.7	-768.2	-775.9	-14.0%	11.9%	2.2%	4.3%	1.0%
Solids	0.0	2.0	2.8	3.7	3.4	3.8	113.5%	6.9%	15.3%	-9.2%	13.2%
Oil	-852.0	-401.0	-703.3	-737.6	-768.8	-776.7	-14.0%	11.9%	2.4%	4.2%	1.0%
Crude oil	-816.6	-350.3	-627.8	-678.1	-711.5	na	-15.6%	12.4%	3.9%	4.9%	-
Oil products	-35.5	-50.8	-75.5	-59.5	-57.3	na	7.4%	8.3%	-11.3%	-3.6%	-
Natural gas	-2.3	-2.5	-4.5	-2.8	-2.7	-3.0	1.9%	12.3%	-21.7%	-3.0%	12.5%
Electricity	0.0	0.0	0.0	-0.1	-0.1	0.0	21.5%	1.1%	23.0%	-1.7%	-100.0%
Gross Inland Consumption	133.6	190.7	237.2	271.6	289.4	304.6	7.4%	4.5%	7.0%	6.5%	5.3%
Solids	0.6	2.7	3.4	4.4	4.4	4.7	35.0%	4.9%	13.1%	1.7%	6.3%
Oil	97.4	133.5	152.0	173.0	183.6	191.9	6.5%	2.6%	6.7%	6.1%	4.5%
Natural gas	33.9	52.4	79.3	91.3	98.4	104.6	9.1%	8.7%	7.3%	7.7%	6.3%
Other (1)	1.7	2.1	2.5	2.9	3.0	3.4	3.9%	3.9%	7.0%	3.9%	12.9%
Electricity Generation in TWh	95.6	175.1	241.8	267.2	287.6	na	12.9%	6.7%	5.1%	7.6%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	9.7	9.6	14.8	18.2	19.1	na	-0.2%	9.1%	10.6%	5.0%	na
Thermal	85.9	165.5	227.0	249.0	268.5	na	14.0%	6.5%	4.8%	7.8%	na
Generation Capacity in GWe	29.2	55.5	73.3	73.5	74.6	na	13.7%	5.7%	0.1%	1.5%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	2.1	3.5	4.8	4.0	4.0	na	10.9%	6.7%	-8.6%	1.0%	na
Thermal	27.1	52.0	68.6	69.5	70.6	na	13.9%	5.7%	0.7%	1.5%	na
Average Load Factor in %	37.4	36.0	37.6	41.5	44.0	na	-0.8%	0.9%	5.0%	6.1%	na
Fuel Inputs for Thermal Power Generation	26.2	43.9	54.7	61.6	67.9	na	10.9%	4.5%	6.1%	10.2%	na
Solids	0.0	1.8	2.4	3.1	3.5	na	-	5.0%	14.7%	14.2%	na
Oil	16.0	27.1	27.9	29.7	33.0	na	11.1%	0.6%	3.2%	11.1%	na
Gas	10.2	15.0	24.4	28.8	31.3	na	8.0%	10.3%	8.5%	8.9%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	28.2	32.2	35.4	34.6	33.8	na	2.7%	1.9%	-1.3%	-2.2%	na
Non-Energy Uses	4.8	10.3	10.8	11.0	11.9	na	16.3%	1.0%	1.1%	8.5%	na
Total Final Energy Demand	87.5	118.7	147.7	167.8	177.3	na	6.3%	4.5%	6.6%	5.7%	na
Solids	0.6	0.8	1.0	1.2	0.9	na	6.9%	4.5%	8.7%	-29.0%	na
Oil	66.4	83.9	98.8	111.7	117.0	na	4.8%	3.3%	6.3%	4.8%	na
Gas	12.9	19.6	29.3	33.8	36.9	na	8.6%	8.4%	7.5%	9.3%	na
Electricity	6.7	12.8	17.0	19.3	20.6	na	13.9%	5.8%	6.6%	6.8%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	0.9	1.5	1.7	1.8	1.9	na	11.1%	1.5%	4.3%	3.1%	na
CO2 Emissions in Mt of CO2	332.8	465.2	585.9	661.9	706.3	na	6.9%	4.7%	6.3%	6.7%	na
Indicators											
Population (Million)	91.58	112.05	134.75	142.91	147.42	151.48	4.1%	3.8%	3.0%	3.2%	2.8%
GDP (index 1985=100)	101.8	100.0	102.8	111.1	114.4	na	na	0.6%	4.0%	2.9%	na
Gross Inl Cons./GDP (toe/1985 MECU)	234.7	341.0	412.6	437.1	452.4	na	na	3.9%	2.9%	3.5%	na
Gross Inl Cons./Capita (toe/inhabitant)	1.46	1.70	1.76	1.90	1.96	2.01	3.1%	0.7%	3.9%	3.3%	2.4%
Electricity Generated/Capita (kWh/inhabitant)	1044	1562	1794	1870	1951	na	8.4%	2.8%	2.1%	4.3%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	3.6	4.2	4.3	4.6	4.8	na	2.7%	0.9%	3.2%	3.4%	na
Import Dependency %	-591.3	-195.2	-283.2	-257.5	-252.7	-242.7	-19.9%	7.7%	-4.6%	-1.8%	-4.0%

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

IRAN : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	84.1	127.8	179.8	207.0	219.1	226.9	8.7%	7.1%	7.3%	5.8%	3.6%
Solids	0.6	0.8	0.8	0.9	0.9	1.0	6.8%	0.7%	7.5%	1.5%	1.5%
Oil	75.9	113.9	158.9	177.2	186.3	189.9	8.5%	6.9%	5.6%	5.1%	1.9%
Natural gas	6.5	11.9	18.9	27.3	30.1	34.4	12.8%	9.7%	20.2%	10.4%	14.3%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	0.5	0.5	0.5	0.8	0.9	0.9	-0.2%	1.9%	23.8%	18.0%	0.0%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.6	0.7	0.7	0.7	0.7	0.7	2.9%	1.3%	3.2%	0.0%	1.5%
Net Imports	-44.0	-72.0	-106.9	-122.6	-125.1	-127.5	10.4%	8.2%	7.1%	2.1%	1.9%
Solids	0.0	0.1	0.2	0.3	0.0	0.0	10.9%	31.7%	11.9%	-100.0%	-
Oil	-43.9	-72.1	-105.2	-122.9	-125.1	-127.5	10.4%	7.9%	8.1%	1.8%	1.9%
Crude oil	-38.2	-77.0	-112.1	-128.5	-131.6	na	15.1%	7.8%	7.1%	2.4%	-
Oil products	-5.7	4.9	6.9	5.6	6.4	na	-	6.9%	-9.7%	14.4%	-
Natural gas	-0.2	0.0	-1.9	0.0	0.0	0.0	-	-	-100.0%	-	-
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Gross Inland Consumption	39.0	54.1	70.3	84.9	92.2	99.5	6.8%	5.4%	9.9%	8.6%	7.9%
Solids	0.6	0.8	1.0	1.2	0.9	1.0	7.1%	4.7%	8.5%	-27.2%	6.1%
Oil	30.9	40.2	51.1	54.8	59.5	62.4	5.4%	4.9%	3.6%	8.5%	4.8%
Natural gas	6.4	11.9	17.0	27.3	30.1	34.4	13.4%	7.3%	26.7%	10.4%	14.3%
Other (1)	1.1	1.2	1.2	1.5	1.7	1.7	1.6%	0.0%	12.7%	9.5%	0.6%
Electricity Generation in TWh	22.4	39.2	59.1	68.4	71.3	na	11.9%	8.5%	7.6%	4.3%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	5.6	5.6	6.1	9.3	11.0	na	0.2%	1.9%	23.8%	17.9%	na
Thermal	16.8	33.7	53.0	59.1	60.3	na	15.0%	9.5%	5.6%	2.1%	na
Generation Capacity in GWe	6.9	13.4	18.0	19.8	20.9	na	14.4%	6.0%	5.0%	5.5%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	0.9	1.8	2.0	2.0	2.0	na	16.2%	1.6%	0.0%	0.0%	na
Thermal	6.0	11.6	16.0	17.8	18.9	na	14.1%	6.6%	5.6%	6.1%	na
Average Load Factor in %	37.3	33.4	37.6	39.5	39.0	na	-2.2%	2.4%	2.5%	-1.2%	na
Fuel Inputs for Thermal Power Generation	4.5	8.9	14.2	15.8	17.3	na	14.9%	9.8%	5.4%	9.8%	na
Solids	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Oil	3.0	7.0	6.3	6.4	6.9	na	18.3%	-2.1%	0.8%	8.1%	na
Gas	1.4	1.9	7.9	9.4	10.4	na	5.9%	32.6%	8.9%	10.9%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	32.4	32.5	32.1	32.2	30.0	na	0.1%	-0.2%	0.2%	-7.0%	na
Non-Energy Uses	1.3	1.4	2.9	3.2	3.6	na	2.1%	15.2%	5.7%	11.8%	na
Total Final Energy Demand	28.5	43.2	50.4	64.3	69.1	na	8.6%	3.1%	13.0%	7.4%	na
Solids	0.6	0.8	1.0	1.2	0.9	na	7.1%	4.4%	9.0%	-29.1%	na
Oil	20.8	28.8	36.3	40.6	43.9	na	6.8%	4.7%	5.8%	8.1%	na
Gas	4.9	10.0	8.5	16.9	18.6	na	15.3%	-3.1%	40.6%	10.1%	na
Electricity	1.7	2.8	3.9	4.9	5.0	na	11.0%	6.8%	12.4%	2.1%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	0.6	0.7	0.7	0.7	0.7	na	2.9%	-1.3%	3.2%	0.0%	na
CO2 Emissions in Mt of CO2	91.3	143.2	176.0	215.0	232.2	na	9.4%	4.2%	10.5%	8.0%	na
Indicators											
Population (Million)	39.25	48.92	58.95	62.15	64.17	65.76	4.5%	3.8%	2.7%	3.3%	2.5%
GDP (Index 1985=100)	75.6	100.0	96.4	113.2	116.2	117.3	5.8%	-0.7%	8.4%	2.6%	1.0%
Gross Inl Cons./GDP (toe/1985 MECU)	218.9	229.8	309.5	318.3	336.9	359.9	1.0%	6.1%	1.4%	5.9%	6.8%
Gross Inl Cons./Capita (toe/inhabitant)	0.99	1.11	1.19	1.37	1.44	1.51	2.2%	1.5%	7.0%	5.2%	5.3%
Electricity Generated/Capita (kWh/inhabitant)	570	802	1003	1101	1112	na	7.1%	4.6%	4.8%	1.0%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	2.32	2.93	2.99	3.46	3.62	na	4.7%	0.4%	7.6%	4.6%	na
Import Dependency %	-108.6	-129.2	-146.6	-141.9	-133.3	-125.7	3.5%	2.6%	-1.6%	-6.1%	-5.7%

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

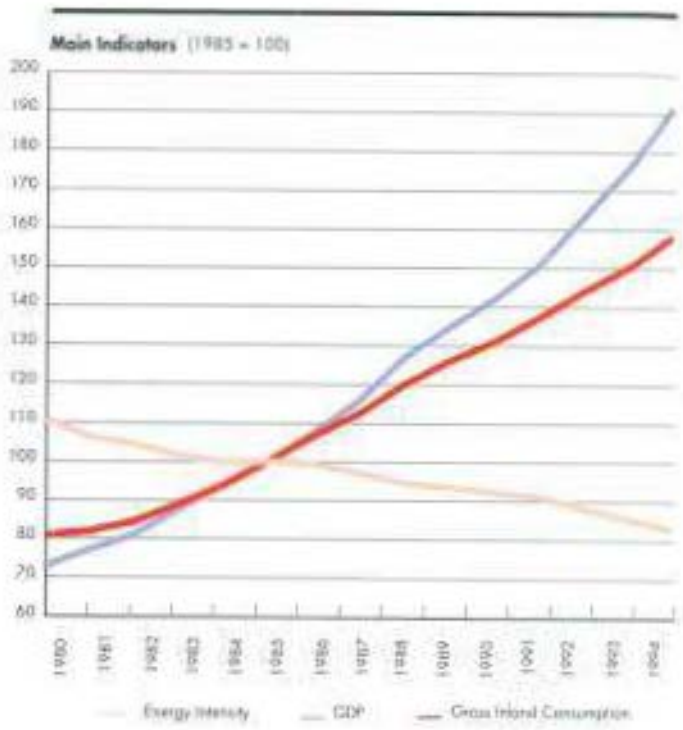
SAUDI ARABIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	518.7	191.5	361.3	465.7	460.9	456.6	-18.1%	13.5%	13.5%	-1.0%	-0.9%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	510.2	175.8	335.9	438.0	431.6	425.8	-19.2%	13.8%	14.2%	-1.5%	-1.3%
Natural gas	8.5	15.8	25.4	27.8	29.3	30.8	13.1%	10.0%	4.6%	5.6%	5.0%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Net Imports	-479.2	-130.5	-293.9	-384.5	-376.6	-368.3	-22.9%	17.6%	14.4%	-2.0%	-2.2%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	-479.2	-130.5	-293.9	-384.5	-376.6	-368.3	-22.9%	17.6%	14.4%	-2.0%	-2.2%
Crude oil	-475.3	-117.9	-252.8	-345.8	-338.9	na	-24.3%	16.5%	17.0%	-2.0%	-
Oil products	-4.0	-12.7	-41.1	-38.7	-37.8	na	26.2%	26.5%	-3.0%	-2.3%	-
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Gross Inland Consumption	35.5	52.2	65.7	79.1	82.0	86.1	8.0%	4.7%	9.8%	3.7%	4.9%
Solids	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Oil	27.0	36.5	40.3	51.3	52.7	55.3	6.2%	2.0%	12.9%	2.7%	4.9%
Natural gas	8.5	15.8	25.4	27.8	29.3	30.8	13.1%	10.0%	4.6%	5.6%	5.0%
Other (1)	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity Generation in TWh	20.5	44.3	64.9	74.0	82.2	na	16.7%	7.9%	6.8%	11.0%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Thermal	20.5	44.3	64.9	74.0	82.2	na	16.7%	7.9%	6.8%	11.0%	na
Generation Capacity in GWe	5.9	13.7	17.0	17.7	18.4	na	18.4%	4.4%	2.3%	3.9%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Hydro & wind	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Thermal	5.9	13.7	17.0	17.7	18.4	na	18.4%	4.4%	2.3%	3.9%	na
Average Load Factor in %	39.5	36.9	43.7	47.6	50.9	na	-1.4%	3.4%	4.4%	6.9%	na
Fuel Inputs for Thermal Power Generation	5.6	12.7	13.0	15.2	17.1	na	17.8%	0.4%	8.3%	12.4%	na
Solids	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Oil	3.4	7.3	8.7	9.9	11.5	na	16.4%	3.6%	6.2%	16.6%	na
Gas	2.2	5.4	4.2	5.4	5.6	na	19.9%	-4.2%	12.6%	4.8%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	31.5	30.0	43.0	41.8	41.3	na	-0.9%	7.5%	-1.4%	-1.2%	na
Non-Energy Uses	0.9	4.8	4.3	4.5	5.1	na	38.2%	-2.2%	2.9%	13.1%	na
Total Final Energy Demand	22.3	26.5	38.4	41.3	44.0	na	3.5%	7.7%	3.7%	6.4%	na
Solids	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Oil	21.0	22.3	25.1	27.5	29.1	na	1.2%	2.4%	4.6%	5.6%	na
Gas	0.3	1.1	9.0	8.9	9.4	na	33.5%	52.9%	-0.6%	6.1%	na
Electricity	1.1	3.1	4.3	5.0	5.5	na	23.5%	6.6%	7.0%	10.9%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
CO2 Emissions in Mt of CO2	93.9	123.1	162.9	179.0	192.6	na	5.5%	5.8%	4.8%	7.6%	na
Indicators											
Population (Million)	9.60	12.65	16.05	16.76	17.12	17.50	5.7%	4.9%	2.2%	2.2%	2.2%
GDP (Index 1985=100)	134.8	100.0	120.8	134.5	135.9	135.8	-5.8%	3.8%	5.6%	1.0%	-0.1%
Gross Inl Cons./GDP (toe/1985 MECU)	232.0	460.1	478.8	517.8	531.7	558.4	14.7%	0.8%	4.0%	2.7%	5.0%
Gross Inl Cons./Capita (toe/inhabitant)	3.70	4.13	4.09	4.72	4.79	4.92	2.2%	-0.2%	7.4%	1.5%	2.7%
Electricity Generated/Capita (kWh/inhabitant)	2130	3500	4044	4417	4799	na	10.5%	2.9%	4.5%	8.7%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	9.78	9.73	10.15	10.68	11.25	na	-0.1%	0.9%	2.6%	5.3%	na
Import Dependency %	-1206.0	-214.1	-435.8	-471.0	-445.9	-414.9	29.2%	15.3%	4.0%	-5.3%	-6.9%

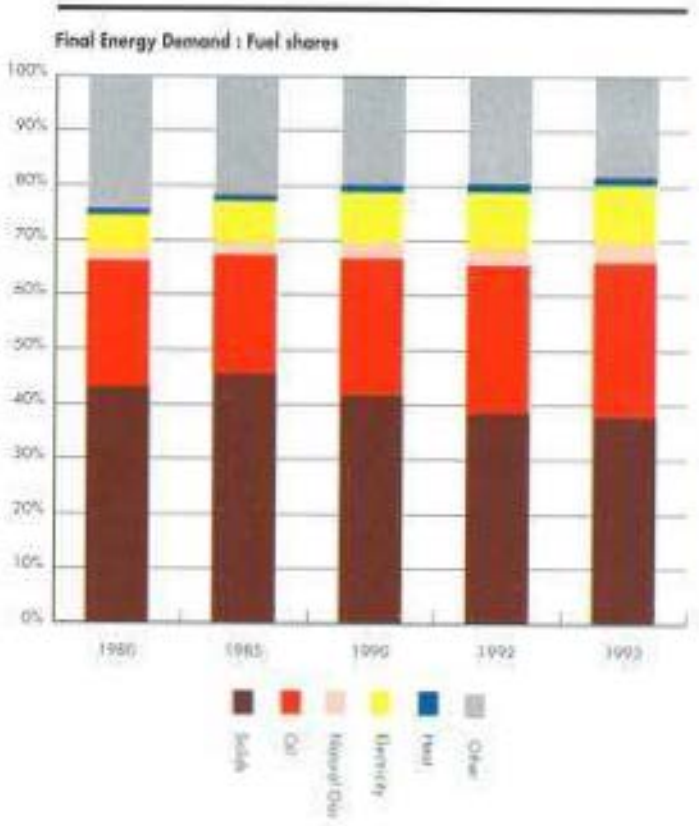
(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Estimates

PART X ASIA

This is the largest world region, including all Asian countries and the Pacific islands, except those belonging to the OECD region, Iran and the Asian Republics of the former USSR. The Asian population has grown by 1.8% per year on average between 1980 and 1992, (led by India 2.1% on average and China 1.4%) but has since shown a slowdown in progression (1.7% for Asia as a whole in 1993 and 1.6% in 1994). In 1994 this population represented almost 54% of the world total; China and India accounted for 22% and 17% respectively. Despite GDP growth of 7% per year on average since 1980, the region is still in a rather low level of economic development (GDP per capita in 1994 was fourteen times lower than the European Union average). However, there are the four NICs which enjoyed in 1994 a GDP per capita only 40% below the European average (increasing from 69% in 1980), a figure which is much higher than some European Union Member States. China and India both have some of the lowest GDP per capita in the world. These economic disparities correspond to different levels of energy demand and of primary fuel mix.



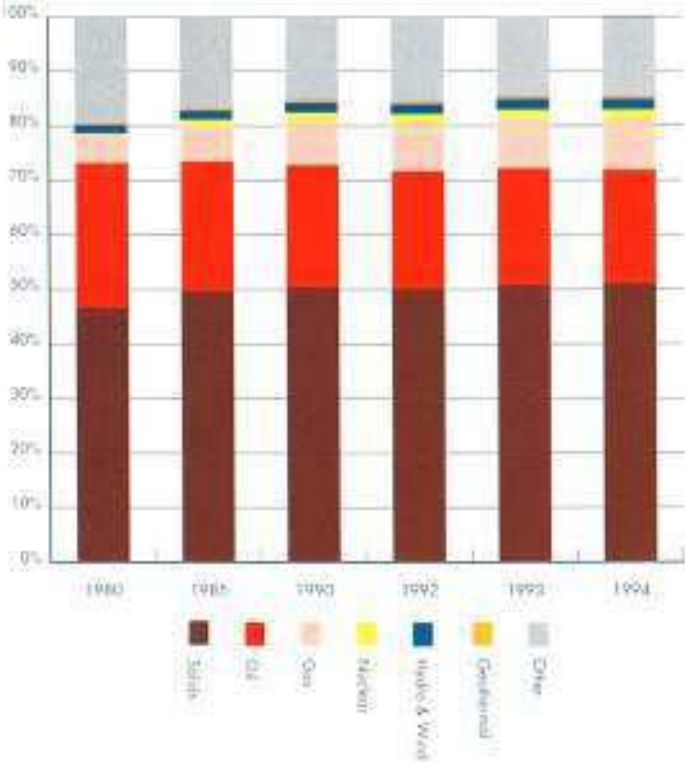
Due to fast and sometimes spectacular economic growth, **final energy consumption** increased steadily by almost 4.3% per year between 1980 and 1993. This growth was satisfied by oil products (35% of the overall increment), solid fuels (31%), electricity (16%), biomass (10%), gas (6%) and derived heat (2%). The increase in oil demand was more or less shared by all countries, although the NICs took 29% of the increase, the same level as China where the growth is particularly sustained since 1990 with an annual growth rate of about 10% on the pressure of transport sector (annual growth rate of about 12%), domestic sector (8.2%) and industry (7.3%). The growth in solid fuels was due to developments in China which alone accounted for 81% of the increase in demand for these fuels. The bulk of these developments occurred during the first part of the 80s resulting in an annual growth rate of 5.4% between 1980 and 1985. Since then, this increase slowed down progressively to reach only 1.3% per year since 1990. The growth in electricity consumption (8.4% per year on average) resulted mainly from China (46% of the increment since 1980), followed by India and the NICs with 19% and 18% respectively. The increase in demand for non-commercial fuels (biomass) occurred mainly in "Other Asia" (44% of the growth); China and India took 36% and 22% of the increase while the consumption of NICs



was declining, reflecting fast industrialisation and improved standards of living.

Due to fast rising final demand, Asian **gross inland energy consumption** grew in the period 1980-1994 by 5% per year on average, with all primary fuels contributing. The average annual growth of each fossil fuel by rank order was: natural gas (10.4%); oil (5.2%) and solids (5.0%). Before 1990, incremental consumption was mainly covered by solids (55% between 1980 and 1990) and oil (23%); but since 1990 oil became the major contributor with 44% of the incremental demand followed by solids (37%). Nuclear energy developed rapidly in the 1980s (growing over 20% per year on average) but practically stabilised in 1991 and 1992 before new developments located in China in 1993 and 1994. Renewable energy sources (mainly biomass) had a steady increase since 1980 of over 3% per year. In 1994, the shares of each primary fuel in total consumption were: solids with 48% (47% in 1980); oil with 29% (28% in 1980); biomass with 13% (19% in 1980); natural gas with 6% (3% in 1980); hydro with 2% (as in 1980) and nuclear with 2% (almost nil in 1980).

Primary Production : Fuel shares

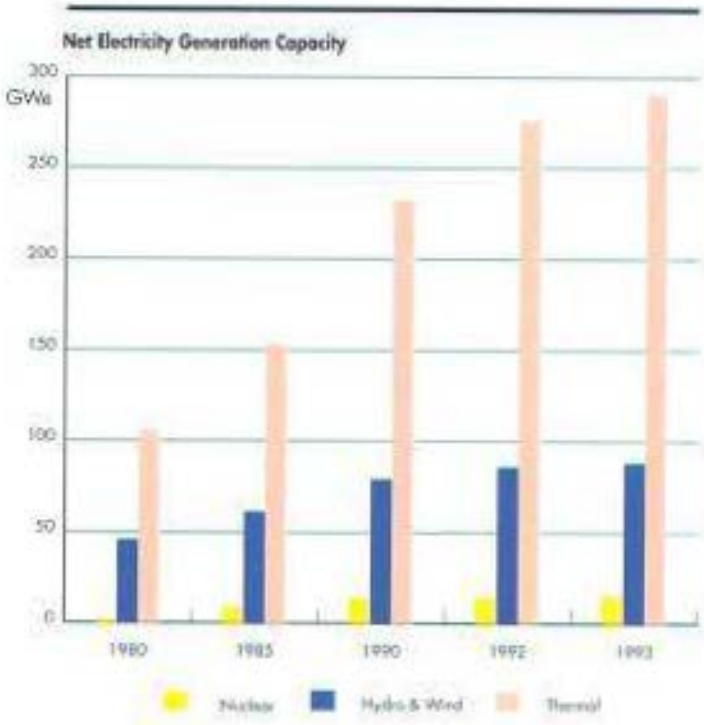


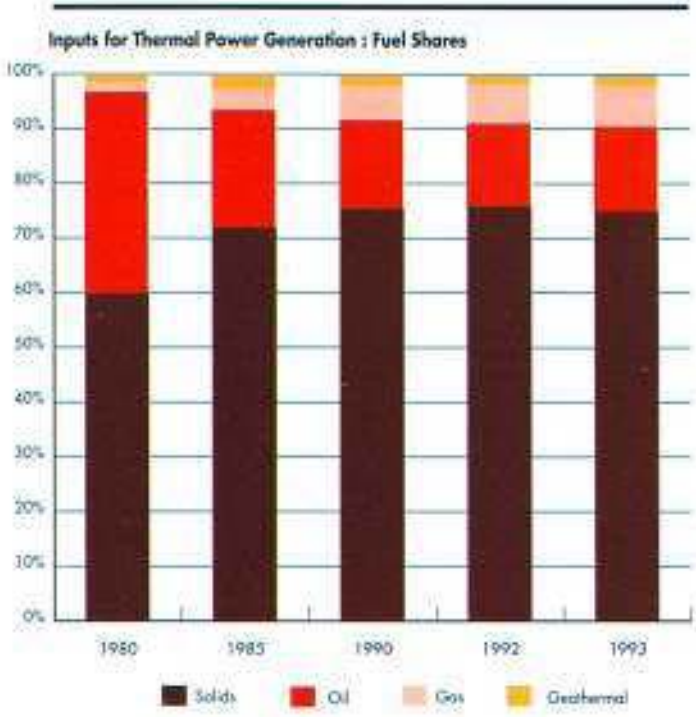
Indigenous **energy production** in Asia is still a function of its own energy needs in relation to economic development, and relatively independent from the evolution of the prices of internationally-traded coal, oil and natural gas. Thus, total energy production increased in line with gross inland consumption by about 4% per year since 1980. Production was dominated by solid fuels with 51% of total production in 1994 (47% in 1974). This development is due to China and India with respectively 76% and 16% of total region production in 1994 in relation with their reserves (11% of total world reserve for China and 7% for India). The share of oil decreased from 26% in 1980 to 21% in 1994. In Asia, China was the biggest oil producer in 1994 (149 Mtoe) followed by Indonesia (74 Mtoe), India (34 Mtoe) and Malaysia (31 Mtoe). Natural gas production increased continuously in the period by 8.6% per year on average. In this case, "Other Asia" (Indonesia with 56 Mtoe and Malaysia with 23 Mtoe) was mainly responsible for the increase. It must be noted that the Asian hydrocarbon reserves are quite limited with only 4.2% of world oil reserves in 1994 and 6.6% of gas reserves. Nuclear energy production was dominated by the NICs: 93% of total nuclear energy in 1992 but only 78% in 1994 due to the first commissioning of nuclear units in China in 1993-94. Hydro power grew slower than most other fuels and in 1992 it accounted for approximately the same share as nuclear. Biomass production increased by 2% per year between 1980 and 1994, with a more sustained growth of about 3.2% in China.

With a dependency in 1994 of about 11%, Asia is increasingly a net **importer of energy.** This is true for solids and oil. It is increasingly a net exporter of natural gas (7% per year growth between 1980 and 1990, and only 2.3% since then). In 1990, gas exports accounted for 33% of indigenous production, but this share was reduced to 27% in 1994 in line with the increasing indigenous consumption. At country level, the picture is quite different. China is a net exporter of solids but became a net importer of oil since 1993. India, however, is a net importer of all commercial energy sources except natural gas. "Other Asia" is a net importer of oil products, but exports crude oil, natural gas and solids, but only since 1992. The NICs, without significant fossil fuel reserves, are an important net energy importer. Indeed, they depended on foreign supplies for 90% of their consumption in 1994. From 1985 to 1994, their net energy imports increased by an annual average of 12%.

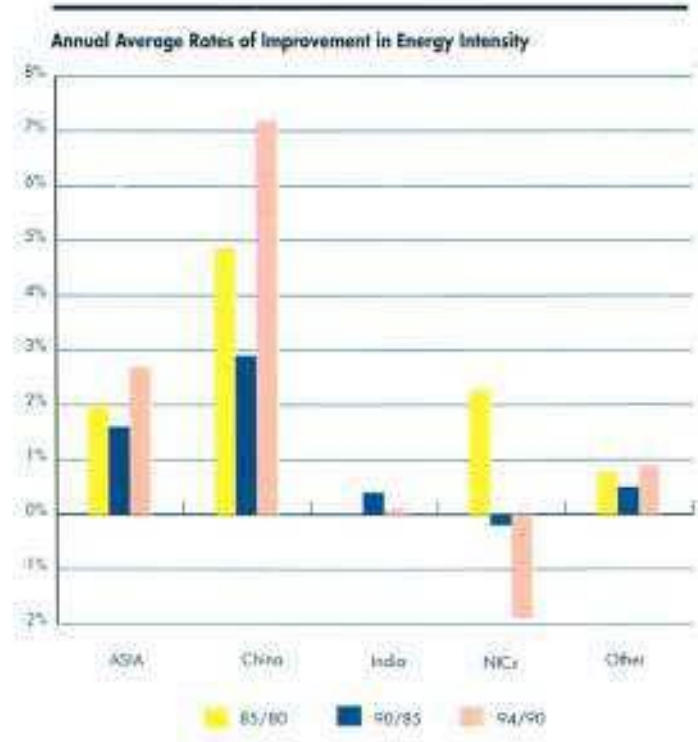
Electricity generation in the region grew steadily by 8.4% per year in the period 1980-1994. Thermal generation dominated electricity production (77% in 1993) with nuclear and hydro accounting respectively for 5% and 18% of total generation. Generation in China (46% of total production in 1993) was also dominated by thermal production (82% of total), hydro accounting for 18% and nuclear still negligible. This structure of production is quite stable since 1980. In the case of India, thermal power represented 78% in 1993, hydro and nuclear accounted for 20% and 2% of total generation respectively. In the NICs, nuclear accounted for 30% of generation in 1993 (down from 36% in 1990), while thermal and hydro power represented 66% and 4% respectively.

The **total Generation capacity** reached 396 GWe in 1993, it means only 75% of the European Union generation capacity. But the rate of expansion was very rapid with a total of 172 GWe between 1985 and 1993 (about 20 GWe per year) compared with only 48 GWe in the European Union during the same period. This market is dominated by thermal units, mainly steam coal power units (the bulk of Chinese generation capacity) but combined cycles units started to be developed mainly in "Other Asia" where indigenous gas resources are available. In 1993, thermal units accounted for 74% of total generation capacity (68.5% in 1980), hydro and wind for 22% (29.5% in 1980) and nuclear for 4% (2% in 1980).





The increment of **inputs for thermal generation** of electricity was dominated by solid fuels. In 1993, solid fuels accounted for 75% of thermal generation (61% in 1980); oil and gas represented 15% and 7% respectively (37% and 2% in 1980). While solids formed the bulk of fuel inputs in China (89% in 1993) and India (93%), in the NICs and "Other Asia" the fuel mix was more diversified. In the NICs in 1993, the shares were: solids (51%); oil (41%); and gas (8%). In the case of "Other Asia" the shares in 1993 were: solids (27%); oil (31%); gas (32%); and geothermal (10%). The average Thermal Efficiency increased regularly from 28.5% in 1980 to 31.6% in 1993 at a region's level. The NICs countries were the more efficient in 1993 with 39.5%, followed by China with 31.6%, "Other Asia" with 31.4% and India with only 27.6%.



The **energy intensity** indicator for the region has been improving significantly (by about -2% per year) since 1980. This evolution was due mainly to China (-4% per year during the 80s and -7% per year since 1990). In 1994, China was the most intensive country (37% higher than the Asian average down from 105% in 1980) while the NICs presented the lowest ratio (40% below Asian average). Compared to the European Union, China was 133% more intensive and the NICs only 42% higher.

The **gross inland consumption per capita** was rather low with 0.58 toe/capita compared to Europe (84% below the European Union level). The lowest level occurred in India with 0.31 toe/capita, markedly lower than the African average, while the NICs had the highest ratio at only 15% below that of the European Union.

MAIN INDICATORS : COMPARISON

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
ASIA	924.3	834.1	768.8	735.9	711.7	689.9	-2.0%	-1.6%	-2.2%	-3.3%	-3.1%
China	1893.8	1471.4	1271.7	1096.6	1005.9	944.0	-4.9%	-2.9%	-7.1%	-8.3%	-6.1%
India	664.6	665.5	653.9	680.1	657.3	652.1	0.0%	-0.4%	2.0%	-3.4%	-0.8%
NICs	433.4	384.8	389.1	410.9	422.0	419.6	-2.3%	0.2%	2.8%	2.7%	-0.6%
Other	661.2	636.4	619.3	612.3	610.3	596.9	-0.8%	-0.5%	-0.6%	-0.3%	-2.2%
European Union	350.9	332.3	304.2	302.1	302.8	296.1	-1.1%	-1.8%	-0.4%	0.2%	-2.2%
Gross Inland Consumption per Capita (toe/inhabitant)											
ASIA	0.37	0.43	0.51	0.54	0.56	0.58	2.6%	3.7%	3.0%	2.8%	3.6%
China	0.46	0.53	0.62	0.64	0.67	0.70	3.0%	3.1%	2.1%	3.4%	4.3%
India	0.21	0.24	0.30	0.31	0.30	0.31	3.3%	3.8%	2.5%	-2.0%	2.6%
NICs	1.32	1.53	2.28	2.69	2.90	3.08	3.0%	8.3%	8.7%	7.9%	6.0%
Other	0.33	0.35	0.42	0.45	0.46	0.47	1.4%	3.4%	3.1%	3.3%	2.1%
European Union	3.42	3.46	3.63	3.62	3.60	3.61	0.2%	1.0%	0.0%	-0.6%	0.2%
Energy Dependency (%)											
ASIA	2.4	0.3	6.5	9.5	12.1	11.1	36.2%	92.1%	20.7%	27.4%	-8.5%
China	-4.4	-7.0	-4.6	-2.3	-0.1	-0.2	9.7%	-8.2%	-29.0%	-97.0%	221.4%
India	16.4	9.0	11.9	15.0	16.0	16.7	-11.3%	5.7%	12.5%	6.3%	4.8%
NICs	79.1	73.7	82.9	87.3	89.5	89.6	-1.4%	2.4%	2.6%	2.5%	0.1%
Other	-26.7	-23.9	-16.5	-17.7	-13.9	-20.1	-2.2%	-7.1%	3.5%	-21.4%	-44.5%
European Union	55.4	41.6	47.5	49.8	47.8	46.2	-5.6%	2.7%	2.4%	-4.0%	-3.2%
GDP/Capita (Thousand 1985 ECU/inhabitant)											
ASIA	0.41	0.51	0.66	0.74	0.78	0.84	4.7%	5.4%	5.2%	6.3%	6.9%
China	0.24	0.36	0.49	0.59	0.66	0.74	8.4%	6.1%	9.9%	12.7%	11.2%
India	0.31	0.37	0.45	0.46	0.46	0.48	3.2%	4.2%	0.5%	1.4%	3.4%
NICs	3.05	3.98	5.86	6.55	6.88	7.34	5.5%	8.0%	5.7%	5.0%	6.6%
Other	0.50	0.56	0.68	0.73	0.75	0.79	2.1%	4.0%	3.7%	3.6%	4.4%
European Union	9.74	10.66	12.26	11.99	11.89	12.18	1.8%	2.8%	-1.1%	-0.9%	2.5%
CO2 Emissions (Million tonnes of CO2)											
ASIA	2242.3	2858.7	3781.8	4135.8	4379.0	no	5.0%	5.8%	4.6%	5.9%	no
China	1400.7	1778.0	2248.5	2394.8	2507.8	no	4.9%	4.8%	3.2%	4.7%	no
India	286.4	414.0	583.0	660.8	688.1	no	7.6%	7.1%	6.5%	4.1%	no
NICs	215.3	258.9	396.5	469.9	514.0	no	3.8%	8.9%	8.9%	9.4%	no
Other	339.9	407.8	553.9	610.2	669.1	no	3.7%	6.3%	5.0%	9.7%	no
European Union	3337.0	3110.0	3213.9	3174.1	3121.8	3105.8	-1.4%	0.7%	-0.6%	-1.6%	-0.5%
CO2 Emissions (t of CO2/inhabitant)											
ASIA	1.0	1.1	1.4	1.4	1.5	no	3.2%	3.9%	2.8%	4.1%	no
China	1.4	1.7	2.0	2.1	2.1	no	3.5%	3.2%	1.9%	3.5%	no
India	0.4	0.5	0.7	0.8	0.8	no	5.5%	4.9%	4.3%	2.0%	no
NICs	3.4	3.8	5.5	6.4	7.0	no	2.3%	7.8%	7.8%	8.3%	no
Other	0.6	0.6	0.8	0.8	0.9	no	1.6%	4.2%	2.7%	7.3%	no
European Union	9.4	8.7	8.8	8.6	8.4	8.4	-1.6%	0.3%	-1.1%	-2.1%	-0.8%

ASIA: Major trends (1980-1994)

- **Despite GDP growth of 7% per year since 1980, still low level of economic development, except in the four NICs**
- **Before 1990, incremental energy demand was mainly covered by solids but after that date, oil became the major contributor**
- **Increasing energy dependency although major improvement in indigenous production on the leadership of solids in China and India in relation to their significant reserves**
- **Growing contribution of biomass, largely distributed between all the countries except the NICs**
- **Rapid expansion of the electricity generation capacity (20 GWe per year)**
- **Inputs for thermal generation of electricity dominated by solids**
- **Energy intensity improved by about 2% on average per year since 1980**

ASIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	862.6	1106.8	1361.6	1443.6	1474.4	1537.3	5.1%	4.2%	3.0%	2.1%	4.3%
Solids	403.7	552.3	688.5	726.2	751.5	787.9	6.5%	4.5%	2.7%	3.5%	4.8%
Oil	226.8	261.3	300.8	308.2	311.5	317.2	2.9%	2.8%	1.2%	1.1%	1.9%
Natural gas	44.0	72.2	107.5	125.8	132.2	140.7	10.4%	8.3%	8.2%	5.1%	6.4%
Nuclear	3.8	13.2	24.0	25.4	26.1	28.7	28.2%	12.7%	2.9%	2.7%	10.0%
Hydro & Wind	13.6	19.3	26.0	26.8	28.9	31.2	7.2%	6.2%	1.6%	7.7%	8.0%
Geothermal	1.8	4.6	5.8	6.0	6.6	6.9	20.0%	5.0%	1.5%	10.2%	4.4%
Other	168.9	185.9	209.0	225.2	217.6	224.7	1.9%	2.4%	3.8%	-3.4%	3.3%
Net Imports	21.0	2.8	94.2	150.8	200.8	193.4	-33.4%	102.7%	26.6%	33.2%	-3.7%
Solids	7.0	23.6	30.5	28.2	34.3	33.5	27.4%	5.3%	-3.7%	21.5%	-2.3%
Oil	32.2	9.9	98.9	159.2	204.4	198.5	-21.1%	58.5%	26.9%	28.4%	-2.9%
Crude oil	23.1	14.3	73.8	126.3	158.0	na	-9.1%	38.8%	30.8%	25.1%	na
Oil products	9.1	-4.4	25.1	32.9	46.4	na	-	-	14.5%	41.1%	na
Natural gas	-18.2	-30.7	-35.2	-36.4	-38.0	-38.6	11.0%	2.8%	1.7%	4.2%	1.7%
Electricity	0.0	0.0	0.0	-0.2	0.1	0.0	-	0.4%	-	-	-100.0%
Gross Inland Consumption	875.3	1085.6	1423.0	1562.1	1633.6	1719.1	4.4%	5.6%	4.8%	4.6%	5.2%
Solids	412.3	554.3	711.5	756.0	785.1	821.5	6.1%	5.1%	3.1%	3.9%	4.6%
Oil	249.2	266.9	374.4	433.5	475.0	503.6	1.4%	7.0%	7.6%	9.6%	6.0%
Natural gas	25.7	41.5	72.2	89.5	94.1	102.5	10.0%	11.7%	11.3%	5.2%	8.9%
Other (1)	188.1	223.0	264.8	283.2	279.2	291.5	3.5%	3.5%	3.4%	-1.4%	4.4%
Electricity Generation in TWh	660.2	913.6	1413.7	1669.9	1831.0	na	7.4%	9.1%	8.7%	9.6%	na
Nuclear	14.7	50.8	92.2	97.5	100.1	na	28.2%	12.7%	2.9%	2.7%	na
Hydro & wind	155.3	219.3	295.7	304.2	327.6	na	7.1%	6.2%	1.4%	7.7%	na
Thermal	470.3	643.5	1025.8	1268.3	1403.2	na	6.5%	9.8%	11.2%	10.6%	na
Generation Capacity in GWe	154.4	224.1	326.6	377.7	395.7	na	7.7%	7.8%	7.5%	4.8%	na
Nuclear	2.9	9.5	14.5	15.2	16.1	na	27.1%	8.8%	2.5%	5.6%	na
Hydro & wind	45.6	61.3	79.2	86.1	88.3	na	6.1%	5.3%	4.2%	2.6%	na
Thermal	105.9	153.3	232.9	276.5	291.3	na	7.7%	8.7%	8.9%	5.4%	na
Average Load Factor in %	47.3	46.5	49.4	50.5	52.8	na	-0.3%	1.2%	1.1%	4.7%	na
Fuel Inputs for Thermal Power Generation	141.7	184.8	299.1	354.4	381.8	na	5.5%	10.1%	8.9%	7.7%	na
Solids	84.9	133.0	225.5	269.0	286.5	na	9.4%	11.1%	9.2%	6.5%	na
Oil	52.1	39.6	48.3	53.4	59.3	na	-5.3%	4.1%	5.2%	11.0%	na
Gas	2.9	7.7	19.6	26.1	29.5	na	21.7%	20.4%	15.6%	13.1%	na
Geothermal	1.8	4.4	5.7	5.8	6.4	na	20.0%	5.0%	1.5%	10.2%	na
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	28.5	29.9	29.4	30.7	31.6	na	1.0%	-0.3%	2.1%	2.7%	na
Non-Energy Uses	21.9	25.9	34.9	41.1	39.2	na	3.4%	6.1%	8.5%	-4.5%	na
Total Final Energy Demand	693.0	855.4	1066.1	1153.1	1202.8	na	4.3%	4.5%	4.0%	4.3%	na
Solids	300.0	390.5	446.1	446.6	457.6	na	5.4%	2.7%	0.1%	2.5%	na
Oil	158.1	184.3	265.3	309.2	337.0	na	3.1%	7.6%	8.0%	9.0%	na
Gas	13.1	20.7	31.4	36.7	43.5	na	9.6%	8.7%	8.0%	18.6%	na
Electricity	45.0	64.1	98.4	117.1	128.6	na	7.3%	9.0%	9.1%	9.9%	na
Heat	7.4	9.1	14.8	17.1	17.1	na	4.3%	10.1%	7.6%	0.0%	na
Other	169.3	186.7	210.0	226.5	219.0	na	2.0%	2.4%	3.8%	-3.3%	na
CO2 Emissions in Mt of CO2	2242.3	2858.7	3781.8	4135.8	4379.0	na	5.0%	5.8%	4.6%	5.9%	na
Indicators											
Population (Million)	2334.64	2547.31	2787.75	2886.71	2935.76	2981.35	1.8%	1.8%	1.8%	1.7%	1.6%
GDP (index 1985=100)	72.8	100.0	142.2	163.1	176.4	191.5	6.6%	7.3%	7.1%	8.1%	8.6%
Gross Inl Cons./GDP (toe/1985 MECU)	924.3	834.1	768.8	735.9	711.7	689.9	-2.0%	-1.6%	-2.2%	-3.3%	-3.1%
Gross Inl Cons./Capita (toe/inhabitant)	0.37	0.43	0.51	0.54	0.56	0.58	2.6%	3.7%	3.0%	2.8%	3.6%
Electricity Generated/Capita (kWh/inhabitant)	274	359	507	578	624	na	5.5%	7.2%	6.8%	7.8%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	1.0	1.1	1.4	1.4	1.5	na	3.2%	3.9%	2.8%	4.1%	na
Import Dependency %	2.4	0.3	6.5	9.5	12.1	11.1	-36.2%	92.1%	20.7%	27.4%	-8.5%

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

CHINA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	464.8	615.5	739.7	768.0	795.0	837.8	5.8%	3.7%	1.9%	3.5%	5.4%
Solids	303.9	427.4	529.1	547.0	565.5	599.5	7.1%	4.4%	1.7%	3.4%	6.0%
Oil	107.9	127.1	140.8	144.3	147.8	148.7	3.3%	2.1%	1.2%	2.4%	0.6%
Natural gas	12.0	10.8	12.8	13.6	14.2	14.5	-2.0%	3.4%	3.2%	4.1%	2.1%
Nuclear	0.0	0.0	0.0	0.0	0.4	3.1	-	-	-	-	634.6%
Hydro & Wind	5.0	7.9	10.9	11.3	13.1	15.3	9.7%	6.5%	1.8%	15.7%	16.9%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	36.1	42.1	46.1	51.8	54.1	56.7	3.1%	1.8%	6.0%	4.4%	4.8%
Net Imports	-19.8	-39.2	-32.1	-17.3	-0.5	-1.8	14.6%	-3.9%	-26.6%	-96.9%	238.9%
Solids	-2.3	-2.9	-8.4	-10.0	-10.1	-12.2	4.8%	23.5%	9.1%	1.8%	20.9%
Oil	-17.5	-36.3	-23.9	-7.6	9.1	10.0	15.8%	-8.1%	-43.6%	-	9.5%
Crude oil	-13.2	-30.3	-21.4	-10.3	-3.9	na	18.1%	-6.7%	-30.6%	-62.6%	na
Oil products	-4.3	-6.0	-2.4	2.7	13.0	na	7.0%	-16.7%	-	375.1%	na
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	0.0	0.1	0.2	0.2	0.4	0.4	-	11.2%	24.8%	81.7%	-10.5%
Gross Inland Consumption	449.2	559.1	701.9	750.4	785.0	827.8	4.5%	4.7%	3.4%	4.6%	5.5%
Solids	306.6	404.8	515.4	540.9	558.9	590.2	5.7%	4.9%	2.4%	3.3%	5.6%
Oil	89.6	93.3	116.5	132.5	144.0	147.7	0.8%	4.6%	6.6%	8.7%	2.6%
Natural gas	12.0	10.8	12.8	13.6	14.2	14.5	-2.0%	3.4%	3.2%	4.1%	2.1%
Other (1)	41.1	50.2	57.1	63.3	68.0	75.5	4.1%	2.6%	5.3%	7.4%	11.0%
Electricity Generation in TWh	300.6	410.7	621.2	754.2	839.5	na	6.4%	8.6%	10.2%	11.3%	na
Nuclear	0.0	0.0	0.0	0.0	1.6	na	-	-	-	-	na
Hydro & wind	58.2	92.4	126.7	131.2	151.8	na	9.7%	6.5%	1.8%	15.7%	na
Thermal	242.4	318.3	494.5	623.0	686.0	na	5.6%	9.2%	12.2%	10.1%	na
Generation Capacity in GWe	67.0	82.2	137.9	166.5	182.9	na	4.2%	10.9%	9.9%	9.8%	na
Nuclear	0.0	0.0	0.0	0.3	1.2	na	-	-	-	298.0%	na
Hydro & wind	21.0	26.5	36.0	40.7	44.6	na	4.8%	6.3%	6.2%	9.7%	na
Thermal	46.0	55.7	101.8	125.6	137.1	na	3.9%	12.8%	11.0%	9.2%	na
Average Load Factor in %	51.2	57.0	51.4	51.7	52.4	na	2.2%	-2.0%	0.3%	1.3%	na
Fuel Inputs for Thermal Power Generation	78.3	99.1	154.2	177.5	186.7	na	4.8%	9.2%	7.3%	5.2%	na
Solids	57.9	81.8	138.0	160.1	166.0	na	7.2%	11.0%	7.7%	3.7%	na
Oil	20.2	16.9	15.2	16.1	19.4	na	-3.5%	-2.1%	2.8%	20.2%	na
Gas	0.2	0.3	0.9	1.2	1.3	na	11.7%	23.8%	18.9%	2.2%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	26.6	27.6	27.6	30.2	31.6	na	0.7%	0.0%	4.6%	4.7%	na
Non-Energy Uses	8.5	7.3	7.5	7.5	7.6	na	-3.0%	0.5%	0.3%	1.7%	na
Total Final Energy Demand	353.9	448.4	540.1	574.8	605.5	na	4.8%	3.8%	3.2%	5.3%	na
Solids	230.5	299.2	345.0	347.4	359.0	na	5.4%	2.9%	0.4%	3.3%	na
Oil	51.8	60.1	79.5	93.5	103.7	na	3.0%	5.8%	8.5%	10.9%	na
Gas	6.8	7.9	10.8	11.5	12.0	na	3.2%	6.4%	3.3%	3.9%	na
Electricity	21.3	29.9	44.0	53.4	59.6	na	7.0%	8.0%	10.2%	11.6%	na
Heat	7.4	9.1	14.8	17.1	17.1	na	4.3%	10.1%	7.6%	0.0%	na
Other	36.1	42.1	46.1	51.8	54.1	na	3.1%	1.8%	6.0%	4.4%	na
CO2 Emissions in Mt of CO2	1400.7	1778.0	2248.5	2394.8	2507.8	na	4.9%	4.8%	3.2%	4.7%	na
Indicators											
Population (Million)	981.23	1051.01	1135.16	1164.95	1178.40	1190.92	1.4%	1.6%	1.3%	1.2%	1.1%
GDP (index 1985=100)	62.4	100.0	145.3	180.1	205.4	230.8	9.9%	7.8%	11.3%	14.0%	12.4%
Gross Inl Cons./GDP (toe/1985 MECU)	1893.8	1471.4	1271.7	1096.6	1005.9	944.0	-4.9%	-2.9%	-7.1%	-8.3%	-6.1%
Gross Inl Cons./Capita (toe/inhabitant)	0.46	0.53	0.62	0.64	0.67	0.70	3.0%	3.1%	2.1%	3.4%	4.3%
Electricity Generated/Capita (kWh/inhabitant)	306	391	547	647	712	na	5.0%	7.0%	8.8%	10.0%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	1.4	1.7	2.0	2.1	2.1	na	3.5%	3.2%	1.9%	3.5%	na
Import Dependency %	-4.4	-7.0	-4.6	-2.3	-0.1	-0.2	9.7%	-8.2%	-29.0%	-97.0%	221.4%

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

INDIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	123.6	172.8	222.8	236.4	232.3	240.1	6.9%	5.2%	3.0%	-1.8%	3.4%
Solids	58.1	75.5	104.4	117.6	121.7	123.1	5.4%	6.7%	6.2%	3.5%	1.2%
Oil	9.6	30.9	34.9	29.8	28.5	32.9	26.3%	2.5%	-7.6%	-4.5%	15.5%
Natural gas	1.2	4.0	10.2	13.2	13.3	14.3	26.3%	20.7%	13.5%	1.4%	6.8%
Nuclear	0.8	1.3	1.6	1.8	1.4	1.3	10.7%	4.3%	4.7%	-19.7%	-7.6%
Hydro & Wind	4.0	4.4	6.2	6.0	6.1	6.1	1.9%	7.0%	-1.2%	0.8%	0.6%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	49.8	56.8	65.6	68.1	61.3	62.5	2.7%	2.9%	1.9%	-9.9%	2.0%
Net Imports	23.5	16.8	29.7	41.1	43.7	47.7	-6.5%	12.1%	17.6%	6.4%	9.2%
Solids	0.3	1.1	3.5	3.8	4.3	8.1	32.3%	24.7%	4.6%	14.0%	87.5%
Oil	23.3	15.7	26.1	37.2	39.3	39.5	-7.6%	10.8%	19.3%	5.6%	0.6%
Crude oil	16.3	13.0	21.3	30.6	31.0	na	-4.4%	10.2%	20.1%	1.1%	na
Oil products	6.9	2.6	4.9	6.5	8.3	na	-17.7%	13.2%	16.1%	26.5%	na
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	0.0	0.0	0.1	0.1	0.1	0.1	14.9%	-	-6.6%	2.9%	-5.7%
Gross Inland Consumption	143.7	186.8	249.6	273.0	273.2	285.0	5.4%	6.0%	4.6%	0.1%	4.3%
Solids	56.3	76.3	106.0	120.1	126.3	131.5	6.3%	6.8%	6.5%	5.1%	4.1%
Oil	31.5	44.0	59.9	63.8	64.7	69.3	6.9%	6.4%	3.2%	1.3%	7.1%
Natural gas	1.2	4.0	10.2	13.2	13.3	14.3	26.3%	20.7%	13.5%	1.4%	6.8%
Other [1]	54.6	62.5	73.5	75.9	68.9	70.0	2.7%	3.3%	1.7%	-9.3%	1.6%
Electricity Generation in TWh	119.3	183.4	289.4	332.7	356.3	na	9.0%	9.6%	7.2%	7.1%	na
Nuclear	3.0	5.0	6.1	6.7	5.4	na	10.7%	4.3%	4.7%	-19.7%	na
Hydro & wind	46.6	51.0	71.7	69.9	70.4	na	1.9%	7.0%	-1.2%	0.8%	na
Thermal	69.7	127.4	211.6	256.1	280.4	na	12.6%	10.7%	10.0%	9.5%	na
Generation Capacity in GWe	33.3	52.3	74.7	82.3	85.3	na	9.4%	7.4%	5.0%	3.6%	na
Nuclear	0.9	1.3	1.6	2.0	2.1	na	9.1%	3.3%	13.2%	4.7%	na
Hydro & wind	11.8	15.5	18.8	19.6	19.9	na	5.6%	3.9%	2.2%	1.7%	na
Thermal	20.6	35.5	54.3	60.8	63.3	na	11.4%	8.9%	5.7%	4.1%	na
Average Load Factor in %	40.9	40.0	44.2	46.1	47.7	na	-0.4%	2.0%	2.1%	3.4%	na
Fuel Inputs for Thermal Power Generation	22.2	34.0	62.5	80.0	87.5	na	8.8%	13.0%	13.1%	9.4%	na
Solids	19.0	30.2	56.7	73.3	81.2	na	9.7%	13.4%	13.7%	10.8%	na
Oil	2.8	2.7	2.9	2.7	2.4	na	-0.6%	1.3%	-4.0%	-10.7%	na
Gas	0.4	1.1	3.0	4.1	3.9	na	21.4%	22.8%	16.9%	-3.6%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	27.0	32.2	29.1	27.5	27.6	na	3.6%	2.0%	-2.7%	0.1%	na
Non-Energy Uses	4.7	5.8	7.7	8.1	7.6	na	4.6%	5.8%	2.5%	-6.7%	na
Total Final Energy Demand	112.0	146.1	181.2	191.0	185.5	na	5.4%	4.4%	2.7%	-2.9%	na
Solids	30.6	43.0	45.5	44.0	42.2	na	7.0%	1.1%	-1.7%	-4.0%	na
Oil	23.2	32.5	45.8	50.2	51.5	na	7.0%	7.1%	4.6%	2.7%	na
Gas	0.7	2.3	5.7	7.1	7.2	na	27.3%	19.5%	11.6%	1.5%	na
Electricity	7.7	11.4	18.5	21.7	23.2	na	8.3%	10.2%	8.2%	7.2%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	49.8	56.8	65.6	68.1	61.3	na	2.7%	2.9%	1.9%	-9.9%	na
CO2 Emissions in Mt of CO2	286.4	414.0	583.0	660.8	688.1	na	7.6%	7.1%	6.5%	4.1%	na
Indicators											
Population (Million)	688.86	762.87	844.85	880.05	898.20	913.60	2.1%	2.1%	2.1%	2.1%	1.7%
GDP (index 1985=100)	77.0	100.0	136.0	143.0	148.0	155.7	5.4%	6.3%	2.5%	3.5%	5.2%
Gross Inl Cons./GDP (toe/1985 MECU)	664.6	665.5	653.9	680.1	657.3	652.1	0.0%	-0.4%	2.0%	-3.4%	-0.8%
Gross Inl Cons./Capita (toe/inhabitant)	0.21	0.24	0.30	0.31	0.30	0.31	3.3%	3.8%	2.5%	-2.0%	2.6%
Electricity Generated/Capita (kWh/inhabitant)	173	240	343	378	397	na	6.8%	7.3%	5.0%	4.9%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	0.4	0.5	0.7	0.8	0.8	na	5.5%	4.9%	4.3%	2.0%	na
Import Dependency %	16.4	9.0	11.9	15.0	16.0	16.7	-11.3%	5.7%	12.5%	6.3%	4.8%

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

NICS : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	18.0	27.7	34.1	32.0	31.3	30.7	9.0%	4.3%	-3.1%	-2.1%	-2.0%
Solids	10.2	11.5	8.2	5.7	4.5	3.6	2.5%	-6.5%	-16.6%	-20.4%	-20.8%
Oil	0.2	0.2	0.3	0.1	0.1	0.1	3.7%	4.6%	-48.7%	-21.9%	75.4%
Natural gas	1.6	1.1	1.2	0.8	0.7	0.6	-7.5%	1.8%	-19.0%	-4.3%	-18.6%
Nuclear	3.0	11.9	22.3	23.6	24.1	24.3	31.2%	13.5%	2.7%	2.4%	0.8%
Hydro & Wind	0.4	0.9	1.3	1.1	1.1	1.3	16.6%	6.5%	-4.7%	-3.6%	18.7%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	2.6	2.1	0.8	0.8	0.8	0.8	-4.1%	-16.5%	-4.5%	2.5%	1.7%
Net Imports	70.6	81.6	147.7	187.9	208.2	223.3	2.9%	12.6%	12.8%	10.8%	7.3%
Solids	8.1	22.7	33.2	40.3	47.2	48.5	22.8%	7.8%	10.3%	17.1%	2.7%
Oil	62.5	58.9	110.9	141.4	153.4	164.3	-1.2%	13.5%	12.9%	8.5%	7.1%
Crude oil	74.6	73.8	108.1	141.2	157.2	na	-0.2%	7.9%	14.3%	11.3%	na
Oil products	-12.1	-14.9	2.8	0.2	-3.8	na	4.3%	-	-73.5%	-	na
Natural gas	0.0	0.0	3.8	6.6	8.0	10.9	-	-	32.5%	20.7%	37.0%
Electricity	0.0	-0.1	-0.2	-0.4	-0.4	-0.4	21.8%	10.5%	66.0%	-8.4%	2.3%
Gross Inland Consumption	83.6	104.2	163.0	196.2	213.9	229.1	4.5%	9.4%	9.7%	9.0%	7.1%
Solids	17.3	32.7	41.1	44.5	48.5	49.5	13.6%	4.7%	4.1%	9.1%	2.0%
Oil	58.7	55.6	92.7	119.2	131.2	142.2	-1.1%	10.8%	13.4%	10.0%	8.4%
Natural gas	1.6	1.1	4.9	7.5	8.6	11.4	-7.5%	35.5%	23.6%	14.4%	32.9%
Other (1)	6.0	14.8	24.3	25.0	25.6	26.0	19.7%	10.5%	1.5%	2.3%	1.5%
Electricity Generation in TWh	99.5	142.8	239.3	281.9	306.9	na	7.5%	10.9%	8.5%	8.9%	na
Nuclear	11.7	45.5	85.8	90.4	92.5	na	31.2%	13.5%	2.7%	2.4%	na
Hydro & wind	4.9	10.6	14.5	13.2	12.7	na	16.6%	6.6%	-4.7%	-3.7%	na
Thermal	82.9	86.7	139.0	178.3	201.6	na	0.9%	9.9%	13.2%	13.1%	na
Generation Capacity in GWe	23.8	43.1	52.6	59.8	65.0	na	12.6%	4.1%	6.7%	8.6%	na
Nuclear	1.9	8.0	12.8	12.8	12.8	na	33.9%	9.8%	0.0%	0.0%	na
Hydro & wind	2.8	4.9	5.1	5.2	5.5	na	11.8%	0.9%	1.7%	5.3%	na
Thermal	19.2	30.2	34.7	41.8	46.7	na	9.5%	2.8%	9.7%	11.7%	na
Average Load Factor in %	47.7	37.8	52.0	53.8	53.9	na	-4.5%	6.6%	1.7%	0.2%	na
Fuel Inputs for Thermal Power Generation	18.7	19.4	31.5	39.1	43.9	na	0.7%	10.2%	11.3%	12.3%	na
Solids	2.3	11.0	15.5	18.8	22.2	na	37.0%	7.1%	10.0%	18.3%	na
Oil	16.4	8.4	13.6	16.7	17.8	na	-12.5%	10.0%	11.1%	6.4%	na
Gas	0.0	0.0	2.5	3.6	3.9	na	-	-	20.6%	8.3%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	38.1	38.4	37.9	39.2	39.5	na	0.2%	-0.3%	1.7%	0.7%	na
Non-Energy Uses	5.9	8.8	13.1	16.6	19.7	na	8.2%	8.3%	19.1%	6.2%	na
Total Final Energy Demand	56.7	68.6	105.6	124.6	135.3	na	3.9%	9.0%	8.6%	8.5%	na
Solids	14.2	20.4	24.3	23.9	24.1	na	7.5%	3.5%	-0.8%	0.8%	na
Oil	31.6	34.7	60.7	75.6	82.9	na	1.9%	11.8%	11.6%	9.6%	na
Gas	0.9	0.9	2.3	3.8	4.9	na	1.5%	19.9%	28.9%	30.6%	na
Electricity	7.3	10.4	17.6	20.6	22.6	na	7.2%	11.0%	8.3%	9.4%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	2.6	2.1	0.9	0.8	0.8	na	-4.1%	-16.4%	-4.4%	2.4%	na
CO2 Emissions in Mt of CO2	215.3	258.9	396.5	469.9	514.0	na	3.8%	8.9%	8.9%	9.4%	na
Indicators											
Population (Million)	63.22	67.96	71.51	72.90	73.66	74.44	1.5%	1.0%	1.0%	1.0%	1.1%
GDP (Index 1985=100)	71.2	100.0	154.8	176.4	187.3	201.7	7.0%	9.1%	6.8%	6.1%	7.7%
Gross Inl Cons./GDP (toe/1985 MECU)	433.4	384.8	389.1	410.9	422.0	419.6	-2.3%	0.2%	2.8%	2.7%	-0.6%
Gross Inl Cons./Capita (toe/inhabitant)	1.32	1.53	2.28	2.69	2.90	3.08	3.0%	8.3%	8.7%	7.9%	6.0%
Electricity Generated/Capita (kWh/inhabitant)	1573	2101	3347	3867	4166	na	5.9%	9.8%	7.5%	7.7%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	3.4	3.8	5.5	6.4	7.0	na	2.3%	7.8%	7.8%	8.3%	na
Import Dependency %	79.1	73.7	82.9	87.3	89.5	89.6	-1.4%	2.4%	2.6%	2.5%	0.1%

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

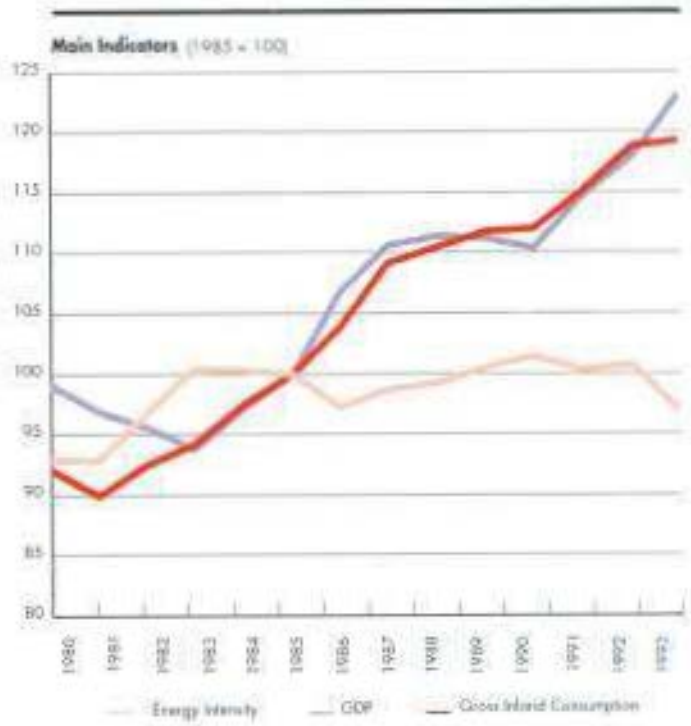
OTHER ASIA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	256.3	292.8	364.9	407.1	415.7	428.7	2.7%	4.5%	5.6%	2.1%	3.1%
Solids	31.5	37.8	46.8	55.9	59.8	61.7	3.7%	4.3%	9.3%	7.1%	3.1%
Oil	109.2	103.1	124.8	134.0	135.1	135.5	-1.1%	3.9%	3.6%	0.8%	0.3%
Natural gas	29.2	56.3	83.3	98.2	104.0	111.4	14.1%	8.2%	8.6%	5.9%	7.1%
Nuclear	0.0	0.1	0.1	0.1	0.2	0.0	-	-3.3%	19.8%	39.4%	-
Hydro & Wind	4.2	6.0	7.7	8.4	8.7	8.5	7.6%	5.0%	4.5%	3.4%	-1.6%
Geothermal	1.8	4.6	5.8	6.0	6.6	6.9	20.0%	5.0%	1.5%	10.2%	4.4%
Other	80.5	84.9	96.4	104.5	101.4	104.7	1.1%	2.6%	4.1%	-3.0%	3.3%
Net Imports	-53.3	-56.5	-51.2	-60.9	-50.5	-75.8	1.2%	-1.9%	9.1%	-17.0%	49.9%
Solids	0.9	2.6	2.2	-6.0	-7.2	-10.9	23.9%	3.3%	-	20.2%	51.8%
Oil	-36.0	-28.4	-14.3	-11.8	2.6	-15.3	-4.7%	-12.9%	-9.0%	-	-
Crude oil	-54.6	-42.2	-34.1	-35.2	-26.3	na	-5.0%	-4.2%	1.6%	-25.4%	na
Oil products	18.6	13.9	19.9	23.4	28.9	na	-5.7%	7.4%	8.6%	23.5%	na
Natural gas	-18.2	-30.7	-39.0	-43.0	-45.9	-49.5	11.0%	4.9%	5.0%	6.7%	7.8%
Electricity	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-4.2%	-	11.4%	-9.7%	-2.0%
Gross Inland Consumption	198.8	235.5	308.5	342.5	361.5	377.1	3.4%	5.6%	5.4%	5.5%	4.3%
Solids	32.2	40.4	49.1	50.5	51.5	50.3	4.7%	4.0%	1.4%	2.0%	-2.4%
Oil	69.3	73.9	105.2	117.9	135.2	144.4	1.3%	7.3%	5.8%	14.7%	6.8%
Natural gas	11.0	25.6	44.3	55.2	58.0	62.4	18.5%	11.6%	11.6%	5.2%	7.5%
Other (1)	86.4	95.6	109.9	118.9	116.7	120.1	2.0%	2.8%	4.0%	-1.8%	2.9%
Electricity Generation in TWh	120.9	176.8	263.8	301.2	328.4	na	7.9%	8.3%	6.9%	9.0%	na
Nuclear	0.0	0.3	0.3	0.4	0.6	na	180.3%	-3.3%	19.4%	39.2%	na
Hydro & wind	45.6	65.3	82.8	89.8	92.6	na	7.5%	4.9%	4.2%	3.1%	na
Thermal	75.3	111.2	180.7	210.9	235.2	na	8.1%	10.2%	8.0%	11.5%	na
Generation Capacity in GWe	30.3	46.5	61.5	69.1	62.6	na	9.0%	5.7%	6.0%	-9.4%	na
Nuclear	0.1	0.1	0.1	0.1	0.0	na	0.0%	0.0%	0.0%	-100.0%	na
Hydro & wind	10.1	14.4	19.3	20.6	18.3	na	7.5%	6.1%	3.1%	-11.3%	na
Thermal	20.1	32.0	42.0	48.4	44.3	na	9.7%	5.6%	7.3%	-8.4%	na
Average Load Factor in %	45.5	43.4	49.0	49.8	59.9	na	-1.0%	2.5%	0.8%	20.4%	na
Fuel Inputs for Thermal Power Generation	22.5	32.4	50.8	57.8	63.7	na	7.6%	9.5%	6.6%	10.2%	na
Solids	5.7	10.0	15.3	16.8	17.1	na	11.8%	8.9%	4.7%	1.4%	na
Oil	12.6	11.5	16.6	17.9	19.7	na	-1.8%	7.6%	3.9%	10.2%	na
Gas	2.3	6.4	13.2	17.2	20.5	na	22.4%	15.8%	14.1%	18.9%	na
Geothermal	1.8	4.4	5.7	5.8	6.4	na	20.0%	5.0%	1.5%	10.2%	na
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	28.5	29.2	30.2	31.0	31.4	na	0.5%	0.7%	1.3%	1.2%	na
Non-Energy Uses	2.8	4.0	6.6	6.8	4.3	na	7.1%	10.6%	1.8%	-37.6%	na
Total Final Energy Demand	170.4	192.4	239.1	262.6	276.6	na	2.5%	4.4%	4.8%	5.3%	na
Solids	24.6	27.8	31.3	31.3	32.3	na	2.5%	2.4%	0.0%	3.2%	na
Oil	51.5	57.0	79.3	89.9	98.9	na	2.1%	6.8%	6.3%	10.0%	na
Gas	4.7	9.5	12.7	14.3	19.4	na	14.9%	5.9%	6.2%	35.7%	na
Electricity	8.7	12.4	18.4	21.3	23.2	na	7.3%	8.2%	7.8%	8.9%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	80.9	85.7	97.5	105.8	102.8	na	1.2%	2.6%	4.2%	-2.9%	na
CO2 Emissions in Mt of CO2	339.9	407.8	553.9	610.2	669.1	na	3.7%	6.3%	5.0%	9.7%	na
Indicators											
Population (Million)	601.33	665.46	736.24	768.81	785.50	802.39	2.0%	2.0%	2.2%	2.2%	2.2%
GDP (index 1985=100)	81.3	100.0	134.7	151.2	160.1	170.7	4.2%	6.1%	5.9%	5.9%	6.7%
Gross Inl Cons./GDP (toe/1985 MECU)	661.2	636.4	619.3	612.3	610.3	596.9	-0.8%	-0.5%	-0.6%	-0.3%	-2.2%
Gross Inl Cons./Capita (toe/inhabitant)	0.33	0.35	0.42	0.45	0.46	0.47	1.4%	3.4%	3.1%	3.3%	2.1%
Electricity Generated/Capita (kWh/inhabitant)	201	266	358	392	418	na	5.7%	6.2%	4.6%	6.7%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	0.6	0.6	0.8	0.8	0.9	na	1.6%	4.2%	2.7%	7.3%	na
Import Dependency %	-26.7	-23.9	-16.5	-17.7	-13.9	-20.1	-2.2%	-7.1%	3.5%	-21.4%	44.5%

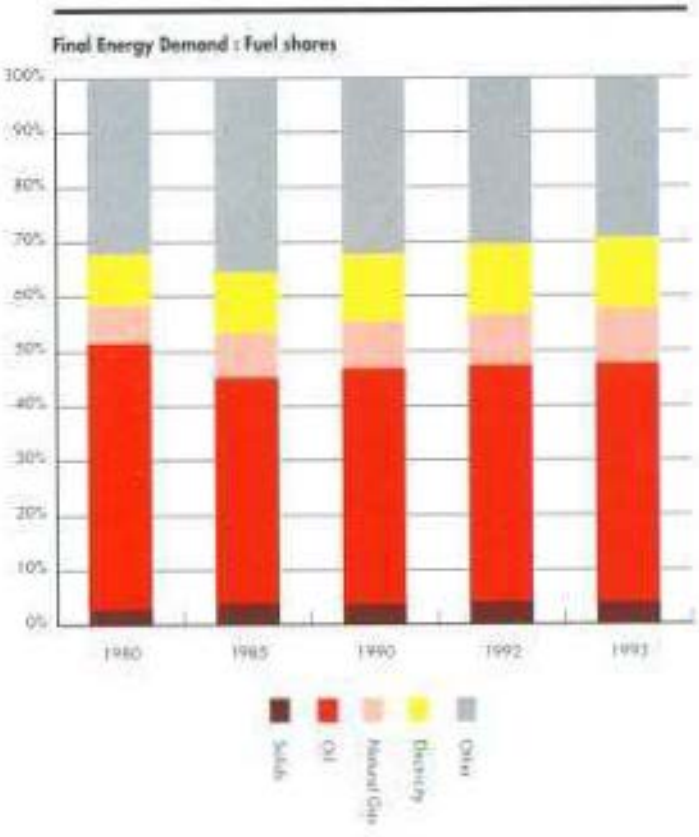
(1) Includes nuclear, hydro and wind, net imports of electricity, and other energy sources.
(2) Estimates

PART XI LATIN AMERICA

Latin America includes all countries of Central and South America (excluding Mexico), and the Caribbean islands. This region is characterised by a mix of some large and medium countries, such as Brazil (a net consumer) or Venezuela (a net producer), located in South America and a multitude of smaller countries with different economic structures and energy resources, mainly located in Central America. In general, the stage of economic development is intermediate between the OECD members and the less developed countries of Africa and Asia. In 1994, the average GDP per capita in Latin America was 2.3 thousand 1985 ECU per inhabitant, or five times less than the European average, but nearly the triple of the Asian average. Since the beginning of the 90s the GDP growth rate is quite more sustained than during the 80s with an average of almost 3.8% per year.

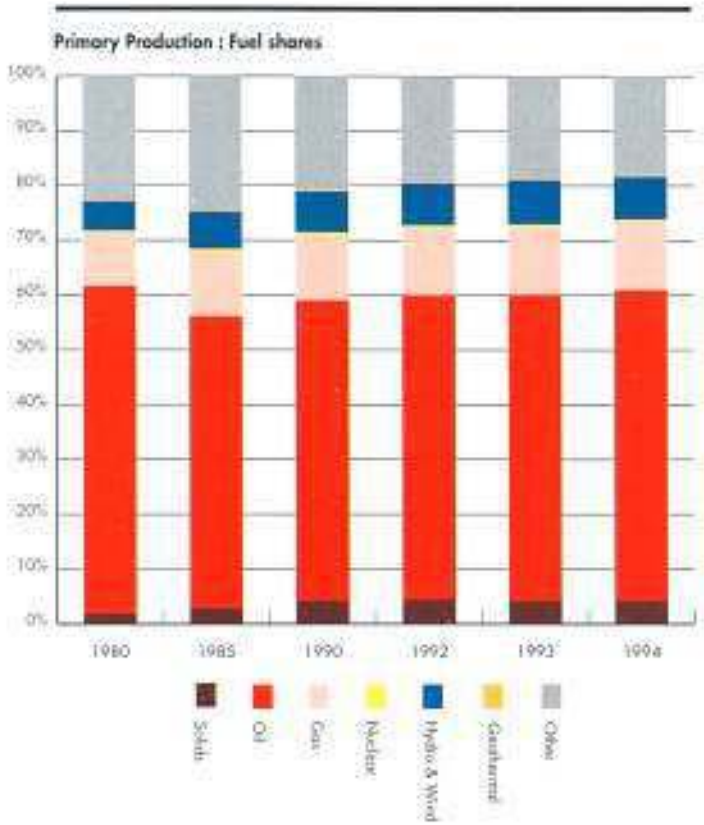


Final energy consumption has increased steadily by about 2% during the 80s. Doped by the economic growth, the increase has reached 2.8% per year since 1990. This growth was satisfied by oil (28% of the overall increment), electricity (25%), biomass (21%), gas (19%), and solids (7% of the overall increment). It must be noted that, since 1985, the contribution of biomass is quite stable at around 90 Mtoe. The increase during the first part of the 80s is due to the alcohol program developed in Brazil. In 1993, the shares of each fuel were: 44% for oil (49% in 1980); 29% for biomass (32% in 1980); 13% for electricity (9% in 1980); 10% for gas (7% in 1980); and 4% for solid fuels (3% in 1980). The share of Brazil in total final demand in Latin America is quite stable since 1980 at about 45% (67% for solids in 1993, 60% for biomass, 51% for electricity, 41% for oil and only 6% for gas). Therefore, developments in final energy demand in Latin America were dominated by the evolution of demand in Brazil, except in the case of natural gas whose development was determined by Argentina and Venezuela which are also the main gas producers.



Gross inland energy consumption grew in line with final demand and was dominated by oil (46% of total in 1994 from 53% in 1980). After oil, renewable energy sources (mainly biomass and hydro) satisfied 33% of total demand in 1994 (32% in 1980). These sources grew in the period 1980-1994 by 2.5% per year on average, but this increase was mainly due to the development of hydro power (almost 6% per year of increase). Natural gas grew by 4.7% per year in the

1 Excluding Mexico (part of NAFTA).



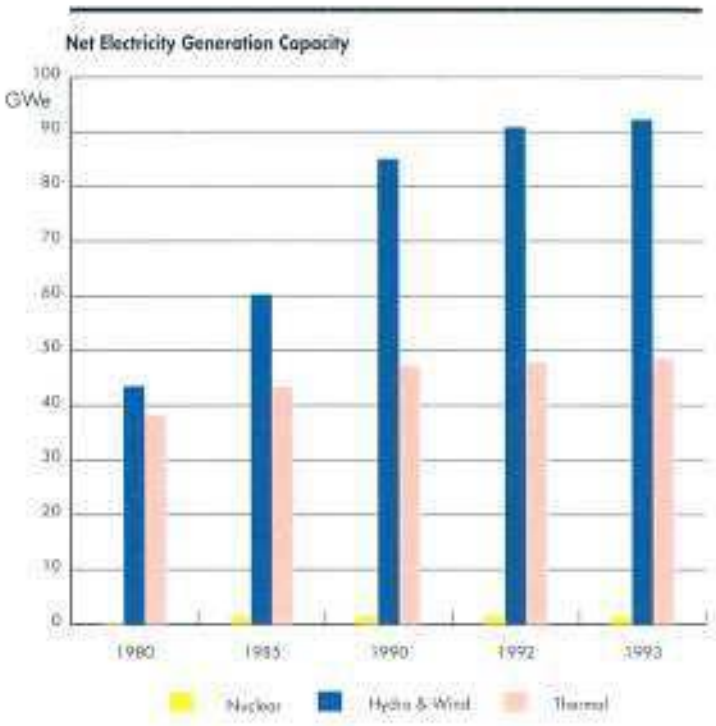
period and represented 16% of the total in 1994 (11% in 1980). Solid fuels, which accounted for only 5% of the total in 1994, increased in the period by 3.9% per year, but the total contribution remained very limited, the bulk of consumption being located in Brazil. There is also some participation of nuclear energy but less than 1% of total in 1994.

Indigenous **energy production** in this region has grown since 1980 by more than 3% on average per year. This means one percent higher than total primary energy demand. Production was dominated by oil (57% of total in 1994) followed by biomass (18%), natural gas (12%), hydro and wind (8%), solids (4%) and nuclear (less than 1%). In 1994, while Venezuela dominated oil (52%) and natural gas production (45%), Brazil was mainly responsible for hydro power and biomass (55% and 60% respectively). With the exception of renewable energy sources, the energy reserves of this region as a whole were particularly limited with 7.8% of total oil reserves, 3.8% of gas reserves and less than 1% of solids reserves.

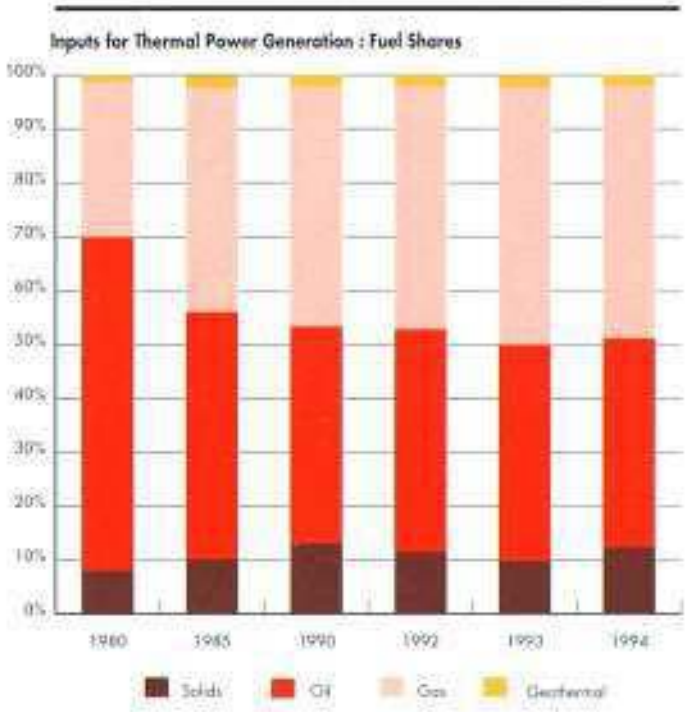
Over the whole period, this region was a net **exporter of energy** (86.4 Mtoe in 1994 from 25.3 Mtoe in 1980). This picture is dominated by oil which accounted for 96% of total exports in 1994 (121% in 1980), of which two thirds consisted of crude oil and one third of refined products. This results from a regular evolution since 1980 when imports of crude oil (30 Mtoe) were largely compensated by exportation of refined products (61 Mtoe). In 1994, the net oil export of Venezuela, one of the founders of OPEC, represented 146% of total oil exports of the region; Brazil being a net oil importer with oil accounting for 72% of its total imports. Despite the limited production of solids, the region became a net exporter of solids in 1990, in relation to the efforts made by Columbia to valorise his reserves.

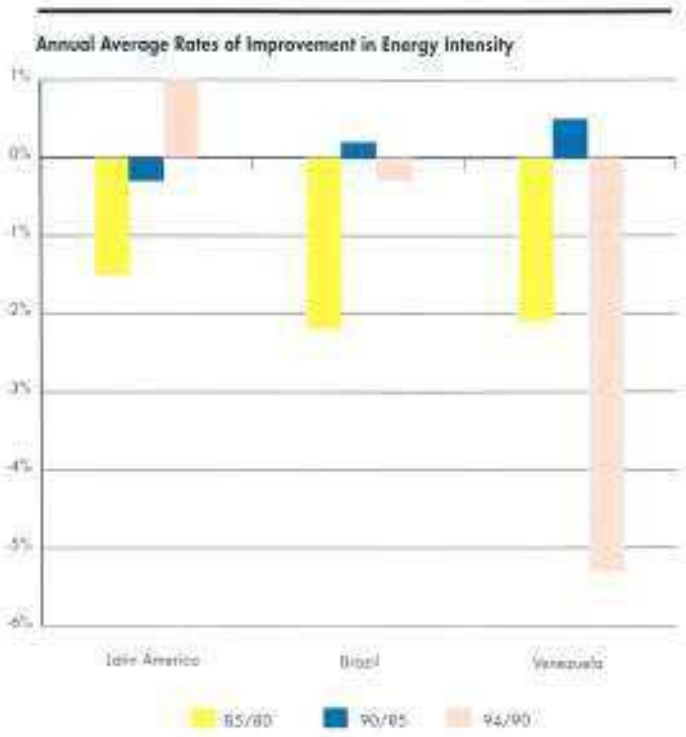
Electricity generation in the region grew steadily by 5% per year in the period 1980-1994. Hydro electricity production dominated total generation with 77% in 1994 (66% in 1980). In 1994, nuclear accounted for almost 2% of total generation. While in Brazil hydro power covered 93% of electricity generation in 1993, in Venezuela and "Other Latin America" electricity production was shared almost equally between hydro and thermal units. Brazil and Argentina had some nuclear energy.

The total generation capacity reached 143 GWe in 1993, of which 65% hydro (53% in 1980), 34% thermal units (47% in 1980) and 1% nuclear. Since 1980, new commissioning has been shared between hydro for 49 GWe (81% of the total), thermal for 10 GWe and nuclear for 1 GWe. The major investment realised during the period concerned the Itaipu hydro power station (12600 MWe) shared by Brazil and Paraguay and the Venezuelan Guri hydro power station (10300 MWe), two of the biggest hydro power stations in the world.



Inputs for thermal generation, which satisfied 22% of total generation in 1994, have grown by 2% on average since 1980. In general, gas significantly penetrated this market, both meeting increasing needs and replacing some oil. Solids use also increased by almost 6% per year during the 80s, and are quite stable since then. But they only accounted for 12% of total inputs in 1994 against 47% for gas and 39% for oil. The picture is different at a country level. In the case of Brazil, where the contribution of thermal power represented only 7% of total production, inputs for thermal generation in 1993 were shared almost equally by solids and oil. In Venezuela, gas dominated the fuel inputs with 84% in 1993, the other 16% being covered by oil. In "Other Latin America" inputs were shared in 1993 between oil (49%), gas (39%), solids (9%) and geothermal (3%).





The **energy intensity** indicator for the region had a contrasted evolution in the period 1980-1994. It increased by 1.5% per year over the period 1980-1985, by 0.3% over the period 1986-1990, and decreased since then by 1% on an average, despite an increase by 5.3% per year in Venezuela. This illustrates the different evolution per country. While in Brazil it fluctuated slowly since 1980 (425 toe/1985 MECU) to peak in 1992 (483 toe/1985 MECU), in Venezuela the ratio increased steadily until 1992 and accelerated in 1993 and 1994. In "Other Latin America" the ratio decreased since 1990 to reach in 1994 a level below 1980. Compared to the European Union, the energy intensity of Brazil and Venezuela was, in 1994, respectively 60% and 86% higher, but only 54% higher for the region as a whole.

Except for Venezuela, the ratio of gross inland consumption to population is rather low compared to Europe (71% below) and was rather stable throughout the period. In Venezuela, this ratio fluctuates, but was only 26% below the European average in 1994.

LATIN AMERICA: Major trends (1980-1994)

- **Doped by the economic growth, final energy consumption has accelerated since 1990**
- **Gross inland consumption dominated by oil (46% in 1994)**
- **Major contribution of renewable, in particular due to the alcohol programme in Brazil**
- **Increasing contribution to the world oil market on the pressure of Venezuela**
- **Electricity production largely covered by hydro from some of the largest world units**
- **Minor contribution of solids in covering all energy needs**
- **Energy intensity of the region peaked in 1990**
- **Stable energy consumption per inhabitant during the whole period**

MAIN INDICATORS : COMPARISON

Mtoe	1980	1985	1990	1992	1993	1994	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Energy Intensity (toe/1985MECU)											
Latin America	436.8	469.9	476.8	473.3	455.5	457.8	1.5%	0.3%	-0.4%	-3.8%	0.5%
Brazil	425.0	474.7	470.0	482.8	468.7	475.6	2.2%	-0.2%	1.3%	-2.9%	1.5%
Venezuela	411.9	457.2	447.0	458.7	503.6	550.5	2.1%	-0.5%	1.3%	9.8%	9.3%
European Union	350.9	332.3	304.2	302.1	302.8	296.1	-1.1%	-1.8%	-0.4%	0.2%	-2.2%
Gross Inland Consumption per Capita (toe/inhabitant)											
Latin America	1.01	0.99	1.01	1.03	1.02	1.04	-0.4%	0.3%	1.1%	-1.5%	2.7%
Brazil	0.97	1.03	1.02	1.00	1.01	1.05	1.2%	-0.2%	-0.7%	0.4%	3.9%
Venezuela	2.32	2.17	2.11	2.41	2.49	2.66	-1.4%	-0.5%	6.8%	3.2%	6.9%
European Union	3.42	3.46	3.63	3.62	3.60	3.61	0.2%	1.0%	0.0%	-0.6%	0.2%
Energy Dependency (%)											
Latin America	-8.4	-12.7	-18.0	-19.5	-21.0	-22.2	8.5%	7.2%	4.1%	7.5%	5.9%
Brazil	39.7	19.1	24.6	24.6	27.3	26.1	-13.6%	5.1%	0.1%	10.8%	-4.2%
Venezuela	-275.4	-189.7	-231.9	-216.6	-242.3	-222.0	-7.2%	4.1%	-3.3%	11.9%	-8.4%
European Union	55.4	41.6	47.5	49.8	47.8	46.2	-5.6%	2.7%	2.4%	-4.0%	-3.2%
GDP/Capita (Thousand 1985 ECU/inhabitant)											
Latin America	2.32	2.11	2.12	2.18	2.23	2.28	-1.9%	0.0%	1.5%	2.3%	2.2%
Brazil	2.28	2.16	2.17	2.08	2.15	2.20	-1.0%	0.0%	-2.1%	3.4%	2.4%
Venezuela	5.63	4.74	4.73	5.26	5.11	4.84	-3.4%	0.0%	5.5%	-2.8%	-5.4%
European Union	9.74	10.66	12.26	11.99	11.89	12.18	1.8%	2.8%	-1.1%	-0.9%	2.5%
CO2 Emissions (Million tonnes of CO2)											
Latin America	514.4	520.6	588.1	632.3	657.8	na	0.2%	2.5%	3.7%	4.0%	na
Brazil	171.2	175.0	200.6	216.1	225.8	na	0.4%	2.8%	3.8%	4.5%	na
Venezuela	80.3	90.0	89.9	96.6	107.4	na	2.3%	0.0%	4.7%	8.9%	na
European Union	3337.0	3110.0	3213.9	3174.1	3121.8	3105.8	-1.4%	0.7%	-0.6%	-1.6%	-0.5%
CO2 Emissions (t of CO2/inhabitant)											
Latin America	1.8	1.6	1.7	1.7	1.8	na	-1.6%	0.5%	1.8%	2.0%	na
Brazil	1.4	1.3	1.4	1.4	1.4	na	-1.7%	0.8%	2.0%	2.6%	na
Venezuela	5.3	5.3	4.6	4.8	5.1	na	-0.3%	-2.6%	2.4%	6.3%	na
European Union	9.4	8.7	8.8	8.6	8.4	8.4	-1.6%	0.3%	-1.1%	-2.1%	-0.8%

LATIN AMERICA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	326.7	368.1	430.7	459.6	471.8	502.5	2.4%	3.2%	3.3%	2.6%	6.5%
Solids	6.2	10.5	18.4	20.6	19.8	21.1	11.1%	11.8%	5.9%	-4.0%	6.4%
Oil	195.2	196.2	236.2	255.7	264.0	285.3	0.1%	3.8%	4.0%	3.2%	8.1%
Natural gas	32.4	43.2	50.8	56.2	58.6	62.6	5.9%	3.3%	5.1%	4.3%	6.9%
Nuclear	0.6	2.4	2.5	2.3	2.1	2.2	31.3%	0.8%	-3.6%	-7.9%	5.8%
Hydro & Wind	17.4	25.0	32.3	35.4	38.1	39.0	7.5%	5.2%	4.7%	7.4%	2.5%
Geothermal	0.4	0.7	0.7	0.8	0.8	0.8	13.0%	2.1%	2.0%	6.6%	-0.6%
Other	74.4	90.1	89.8	88.7	88.4	91.5	3.9%	-0.1%	-0.6%	-0.2%	3.5%
Net Imports	-25.3	-41.3	-65.3	-75.1	-81.0	-86.4	10.3%	9.6%	7.2%	8.0%	6.7%
Solids	5.1	4.9	-0.7	-1.9	-3.5	-2.8	-0.9%	-	70.1%	80.2%	-19.5%
Oil	-30.6	-46.0	-64.2	-72.4	-76.8	-82.9	8.5%	6.9%	6.2%	6.1%	7.9%
Crude oil	30.4	-6.7	-26.3	-35.0	-47.4	-55.8	-	31.4%	15.4%	35.5%	17.6%
Oil products	-61.1	-39.3	-38.0	-37.4	-29.4	-27.1	-8.4%	-0.7%	-0.7%	-21.4%	-7.7%
Natural gas	0.2	0.1	-0.2	-0.3	-0.3	-0.3	-8.0%	-	17.8%	3.4%	0.0%
Electricity	0.0	-0.4	-0.1	-0.4	-0.4	-0.4	98.6%	-20.9%	86.5%	-5.3%	0.0%
Gross Inland Consumption	292.2	317.3	355.5	377.1	378.7	395.8	1.7%	2.3%	3.0%	0.4%	4.5%
Solids	11.0	15.6	17.4	18.6	17.1	18.8	7.3%	2.2%	3.2%	-7.9%	10.0%
Oil	155.8	140.7	162.3	176.0	174.3	181.6	-2.0%	2.9%	4.1%	-1.0%	4.2%
Natural gas	32.6	43.3	50.6	55.8	58.2	62.3	5.8%	3.2%	5.0%	4.3%	6.9%
Other (1)	92.8	117.8	125.2	126.7	129.0	133.2	4.9%	1.2%	0.6%	1.8%	3.2%
Electricity Generation in TWh	299.9	396.3	491.9	535.1	564.6	590.9	5.7%	4.4%	4.3%	5.5%	4.7%
Nuclear	2.3	9.1	9.5	8.8	8.1	8.6	31.3%	0.8%	-3.6%	-7.9%	5.8%
Hydro & wind	199.5	285.6	368.9	404.3	434.5	453.6	7.4%	5.3%	4.7%	7.5%	4.4%
Thermal	98.1	101.6	113.5	122.0	122.0	128.7	0.7%	2.2%	3.7%	0.0%	5.5%
Generation Capacity in GWe	82.4	105.5	134.2	140.6	142.8	na	5.1%	4.9%	2.4%	1.5%	na
Nuclear	0.4	1.7	1.7	1.7	1.7	na	35.3%	0.0%	0.0%	0.0%	na
Hydro & wind	43.6	60.3	85.1	90.9	92.3	na	6.7%	7.1%	3.4%	1.5%	na
Thermal	38.4	43.5	47.4	48.0	48.7	na	2.5%	1.7%	0.6%	1.5%	na
Average Load Factor in %	41.5	42.9	41.8	43.4	45.2	na	0.6%	-0.5%	1.9%	3.9%	na
Fuel Inputs for Thermal Power Generation	29.0	29.0	32.0	34.6	35.1	36.1	0.0%	2.0%	4.1%	1.3%	2.8%
Solids	2.3	3.0	4.2	4.0	3.4	4.5	5.0%	7.3%	-2.7%	-14.0%	30.1%
Oil	18.0	13.3	12.8	14.3	14.1	14.0	-5.8%	-0.7%	5.6%	-1.6%	-0.7%
Gas	8.4	12.1	14.2	15.6	16.8	16.9	7.6%	3.3%	4.7%	7.7%	0.8%
Geothermal	0.3	0.6	0.7	0.7	0.8	0.7	13.0%	2.1%	2.1%	6.5%	-9.2%
Other	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Average Thermal Efficiency in %	28.8	29.7	30.0	29.7	29.3	30.7	0.6%	-0.2%	-0.4%	-1.3%	4.7%
Non-Energy Uses	10.4	13.9	15.4	15.9	16.8	na	6.0%	2.0%	1.9%	5.3%	na
Total Final Energy Demand	233.4	256.1	281.2	294.8	305.4	na	1.9%	1.9%	2.4%	3.6%	na
Solids	6.9	10.3	10.7	12.3	12.2	na	8.4%	0.7%	7.4%	-0.8%	na
Oil	113.6	105.7	121.4	127.6	133.6	na	-1.4%	2.8%	2.5%	4.7%	na
Gas	16.3	21.1	23.9	27.3	30.4	na	5.3%	2.5%	7.0%	11.3%	na
Electricity	21.6	28.0	34.4	37.6	39.4	na	5.3%	4.2%	4.6%	4.8%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	75.0	91.0	90.9	90.0	89.8	na	3.9%	0.0%	-0.5%	-0.2%	na
CO2 Emissions in Mt of CO2	514.4	520.6	588.1	632.3	657.8	na	0.2%	2.5%	3.7%	4.0%	na
Indicators											
Population (Million)	288.03	319.53	352.47	365.82	372.96	379.67	2.1%	2.0%	1.9%	2.0%	1.8%
GDP (Index 1985=100)	99.1	100.0	110.4	118.0	123.1	128.0	0.2%	2.0%	3.4%	4.3%	4.0%
Gross Inl Cons./GDP (toe/1985 MECU)	436.8	469.9	476.8	473.3	455.5	457.8	1.5%	0.3%	-0.4%	-3.8%	0.5%
Gross Inl Cons./Capita (toe/inhabitant)	1.01	0.99	1.01	1.03	1.02	1.04	-0.4%	0.3%	1.1%	-1.5%	2.7%
Electricity Generated/Capita (kWh/inhabitant)	1041	1240	1396	1463	1514	1556	3.6%	2.4%	2.4%	3.5%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	1.8	1.6	1.7	1.7	1.8	na	-1.8%	0.5%	1.8%	2.0%	na
Import Dependency %	-8.4	-12.7	-18.0	-19.5	-21.0	-22.2	8.5%	7.2%	4.1%	7.5%	5.9%

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

BRAZIL : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	70.8	114.2	117.3	116.6	118.4	123.6	10.0%	0.5%	-0.3%	1.6%	4.4%
Solids	2.5	3.5	2.0	2.1	2.0	2.2	7.1%	-10.2%	1.5%	-2.9%	10.7%
Oil	10.7	32.7	38.4	38.4	39.3	40.8	25.1%	3.3%	0.0%	2.4%	3.8%
Natural gas	1.0	2.2	3.3	3.6	3.8	4.0	17.4%	8.3%	4.0%	6.1%	4.2%
Nuclear	0.0	0.9	0.6	0.5	0.1	0.1	-	-7.9%	-11.3%	-74.9%	0.0%
Hydro & Wind	11.3	15.7	18.2	19.7	20.7	21.4	6.8%	3.0%	4.0%	5.0%	3.3%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	45.4	59.2	54.7	52.3	52.4	55.0	5.5%	-1.6%	-2.2%	0.1%	4.9%
Net Imports	47.4	27.1	37.5	38.4	43.6	44.0	-10.6%	6.7%	1.2%	13.5%	1.0%
Solids	3.7	5.9	7.8	8.3	8.8	9.4	10.2%	5.6%	3.0%	6.8%	6.3%
Oil	43.8	21.0	27.4	28.1	32.4	31.9	-13.7%	5.5%	1.1%	15.4%	-1.5%
Crude oil	43.4	27.4	28.9	26.8	25.7	27.9	-8.8%	1.0%	-3.7%	-4.1%	8.6%
Oil products	0.4	-6.4	-1.5	1.2	6.7	4.0	-	-25.7%	-	434.9%	-40.2%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	0.0	0.2	2.3	2.1	2.4	2.7	-	69.1%	-4.9%	14.8%	14.9%
Gross Inland Consumption	117.5	138.7	151.1	154.1	157.5	166.5	3.4%	1.7%	1.0%	2.2%	5.7%
Solids	5.8	9.9	9.7	10.7	10.8	11.6	11.1%	-0.4%	5.2%	1.4%	7.1%
Oil	54.0	50.6	62.3	65.2	67.3	71.6	-1.3%	4.2%	2.3%	3.1%	6.5%
Natural gas	1.0	2.2	3.3	3.6	3.8	4.0	17.4%	8.3%	4.0%	6.1%	4.2%
Other (1)	56.7	75.9	75.8	74.6	75.6	79.2	6.0%	0.0%	-0.8%	1.4%	4.8%
Electricity Generation in TWh	139.4	193.7	222.8	241.7	251.5	na	6.8%	2.8%	4.2%	4.0%	na
Nuclear	0.0	3.4	2.2	1.8	0.4	na	-	-7.9%	-11.3%	-74.9%	na
Hydro & wind	128.9	178.4	206.7	223.3	234.8	na	6.7%	3.0%	3.9%	5.1%	na
Thermal	10.5	11.9	13.9	16.6	16.3	na	2.6%	3.1%	9.5%	-2.1%	na
Generation Capacity in GWe	33.3	44.1	53.1	55.1	56.2	na	5.8%	3.8%	1.9%	2.0%	na
Nuclear	0.0	0.7	0.7	0.7	0.7	na	-	0.0%	0.0%	0.0%	na
Hydro & wind	27.5	37.1	45.6	47.7	48.6	na	6.1%	4.2%	2.3%	1.9%	na
Thermal	5.8	6.4	6.8	6.8	7.0	na	2.0%	1.4%	-0.5%	2.8%	na
Average Load Factor in %	47.8	50.1	47.9	50.1	51.1	na	1.0%	-0.9%	2.2%	2.0%	na
Fuel Inputs for Thermal Power Generation	2.1	2.2	2.5	3.2	3.0	na	1.3%	2.2%	14.0%	-6.5%	na
Solids	0.8	1.2	1.2	1.4	1.3	na	8.8%	-0.1%	8.3%	-7.1%	na
Oil	1.3	1.0	1.2	1.7	1.5	na	-4.7%	3.4%	19.8%	-10.5%	na
Gas	0.0	0.0	0.1	0.1	0.2	na	-	-	5.9%	85.5%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	39.3	39.9	40.9	38.3	39.6	na	0.3%	0.5%	-3.2%	3.4%	na
Non-Energy Uses	5.3	8.2	9.2	9.1	9.3	na	9.2%	2.3%	-0.4%	2.7%	na
Total Final Energy Demand	106.3	122.8	131.9	134.3	138.3	na	2.9%	1.4%	0.9%	3.0%	na
Solids	4.1	7.1	6.9	8.1	8.2	na	11.3%	-0.5%	8.5%	1.5%	na
Oil	45.6	40.2	49.7	51.8	54.7	na	-2.5%	4.3%	2.1%	5.5%	na
Gas	0.6	1.2	1.6	1.9	1.9	na	15.9%	5.5%	7.8%	0.1%	na
Electricity	10.2	14.4	18.1	19.1	20.0	na	7.1%	4.7%	2.8%	4.7%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	45.8	59.9	55.6	53.4	53.5	na	5.5%	-1.5%	-2.1%	0.2%	na
CO2 Emissions in Mt of CO2	171.2	175.0	200.6	216.1	225.8	na	0.4%	2.8%	3.8%	4.5%	na
Indicators											
Population (Million)	121.29	135.04	148.48	153.67	156.49	159.14	2.2%	1.9%	1.7%	1.8%	1.7%
GDP (Index 1985=100)	94.7	100.0	110.1	109.3	115.1	119.8	1.1%	1.9%	-0.4%	5.3%	4.1%
Gross Inl Cons./GDP (toe/1985 MECU)	425.0	474.7	470.0	482.8	468.7	475.6	2.2%	-0.2%	1.3%	-2.9%	1.5%
Gross Inl Cons./Capita (toe/inhabitant)	0.97	1.03	1.02	1.00	1.01	1.05	1.2%	0.2%	-0.7%	0.4%	3.9%
Electricity Generated/Capita (kWh/inhabitant)	1149	1434	1501	1573	1607	na	4.5%	0.9%	2.4%	2.2%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	1.4	1.3	1.4	1.4	1.4	na	-1.7%	0.8%	2.0%	2.6%	na
Import Dependency %	39.7	19.1	24.6	24.6	27.3	26.1	-13.6%	5.1%	0.1%	10.8%	-4.2%

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

VENEZUELA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	135.4	114.7	139.1	157.8	165.2	182.9	-3.3%	3.9%	6.5%	4.7%	10.7%
Solids	2.5	3.5	2.0	2.1	2.0	2.5	7.1%	-10.2%	1.5%	-2.9%	21.9%
Oil	116.8	91.0	115.0	129.5	133.9	147.6	-4.9%	4.8%	6.1%	3.4%	10.2%
Natural gas	14.8	18.3	18.9	22.1	25.2	28.4	4.3%	0.7%	8.1%	14.0%	12.7%
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Hydro & Wind	1.3	1.9	3.2	4.0	4.1	4.4	9.2%	10.3%	12.8%	0.9%	8.2%
Geothermal	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	0.0	-11.1%	-	-	-	-
Net Imports	-98.1	-71.4	-97.4	-108.6	-116.0	-124.1	-6.2%	6.4%	5.6%	6.8%	7.0%
Solids	0.1	0.1	-1.1	-1.6	-2.2	-2.7	3.4%	-	19.6%	37.3%	21.8%
Oil	-98.2	-71.5	-96.3	-107.0	-113.7	-121.4	-6.1%	6.1%	5.4%	6.3%	6.7%
Crude oil	-69.6	-45.0	-64.9	-74.0	-81.0	-88.8	-8.4%	7.6%	6.8%	9.4%	9.6%
Oil products	-28.6	-26.6	-31.4	-32.9	-32.7	-32.6	-1.5%	3.4%	2.4%	-0.7%	-0.4%
Natural gas	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-	-
Electricity	0.0	0.0	0.0	0.0	0.0	0.0	-	-	-	-100.0%	-
Gross Inland Consumption	35.0	37.1	41.2	49.2	52.1	56.9	1.2%	2.1%	9.3%	5.7%	9.3%
Solids	0.1	0.2	0.2	0.3	0.2	0.2	2.8%	5.9%	12.5%	-35.1%	0.0%
Oil	18.8	16.7	18.9	22.8	22.6	23.9	-2.4%	2.5%	9.9%	-1.1%	5.8%
Natural gas	14.8	18.3	18.9	22.1	25.2	28.4	4.3%	0.7%	8.1%	14.0%	12.7%
Other (1)	1.3	2.0	3.2	4.0	4.1	4.4	9.0%	10.2%	12.4%	1.6%	8.2%
Electricity Generation in TWh	36.9	49.0	59.3	69.5	71.4	na	5.9%	3.9%	8.2%	2.8%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Hydro & wind	14.6	22.6	37.0	47.1	47.5	na	9.2%	10.3%	12.8%	0.9%	na
Thermal	22.3	26.3	22.3	22.4	23.9	na	-3.4%	-3.2%	0.1%	6.8%	na
Generation Capacity in GWe	8.5	13.5	18.5	18.7	18.8	na	12.9%	3.6%	0.6%	0.2%	na
Nuclear	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Hydro & wind	2.7	5.0	10.0	10.7	10.7	na	13.0%	15.0%	3.3%	0.0%	na
Thermal	5.8	10.5	8.5	8.1	8.1	na	12.8%	-4.2%	-2.7%	0.4%	na
Average Load Factor in %	44.1	36.0	36.6	42.3	43.4	na	-3.9%	0.3%	7.6%	2.6%	na
Fuel Inputs for Thermal Power Generation	7.6	8.6	7.4	7.7	8.9	na	2.5%	-2.8%	2.0%	15.5%	na
Solids	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Oil	3.7	2.7	1.8	1.2	1.4	na	-6.2%	-7.7%	-17.2%	10.9%	na
Gas	3.9	5.9	5.6	6.5	7.5	na	8.7%	-0.9%	7.5%	16.4%	na
Geothermal	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	25.3	26.4	25.9	25.0	23.1	na	0.9%	-0.4%	-1.9%	-7.5%	na
Non-Energy Uses	1.2	0.9	1.3	2.0	1.1	na	-5.1%	7.2%	24.3%	-44.4%	na
Total Final Energy Demand	22.6	24.8	26.1	29.4	31.5	na	1.9%	1.0%	6.2%	7.0%	na
Solids	0.1	0.2	0.2	0.3	0.2	na	2.8%	5.9%	12.5%	-35.4%	na
Oil	11.4	12.3	12.7	13.6	14.0	na	1.5%	0.7%	3.5%	3.2%	na
Gas	8.4	9.1	9.3	10.8	12.3	na	1.6%	0.5%	7.8%	14.6%	na
Electricity	2.6	3.3	3.9	4.8	4.9	na	4.7%	3.0%	11.0%	3.3%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	0.0	0.0	0.0	0.0	0.0	na	-11.1%	-	-	-	na
CO2 Emissions in Mt of CO2	80.3	90.0	89.9	98.6	107.4	na	2.3%	0.0%	4.7%	8.9%	na
Indicators											
Population (Million)	15.09	17.14	19.50	20.41	20.91	21.38	2.6%	2.6%	2.3%	2.5%	2.2%
GDP (Index 1985=100)	104.8	100.0	113.6	132.3	131.7	127.4	-0.9%	2.6%	7.9%	0.4%	-3.3%
Gross Inl Cons /GDP (toe/1985 MECU)	411.9	457.2	447.0	458.7	503.6	550.5	2.1%	-0.5%	1.3%	9.8%	9.3%
Gross Inl Cons /Capita (toe/inhabitant)	2.32	2.17	2.11	2.41	2.49	2.66	-1.4%	-0.5%	6.8%	3.2%	6.9%
Electricity Generated/Capita (kWh/inhabitant)	2442	2858	3042	3404	3414	na	3.2%	1.3%	5.8%	0.3%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	5.3	5.3	4.6	4.8	5.1	na	0.3%	-2.6%	2.4%	6.3%	na
Import Dependency %	-275.4	-189.7	-231.9	-216.6	-242.3	-222.0	-7.2%	4.1%	-3.3%	11.9%	-8.4%

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

OTHER LATIN AMERICA : SUMMARY ENERGY BALANCE

Mtoe	1980	1985	1990	1992	1993	1994(2)	85/80	90/85	92/90	93/92	94/93
							Annual % Change				
Primary Production	123.0	142.7	175.0	185.4	187.1	194.8	3.0%	4.2%	2.9%	0.9%	4.1%
Solids	3.7	7.1	15.0	16.7	14.8	16.4	13.6%	16.3%	5.2%	-11.3%	10.7%
Oil	67.8	72.6	82.8	87.8	90.7	94.2	1.4%	2.7%	2.9%	3.4%	3.8%
Natural gas	16.6	22.6	28.6	30.4	29.5	30.7	6.4%	4.8%	3.2%	-3.0%	4.2%
Nuclear	0.6	1.5	1.9	1.8	2.0	2.0	19.8%	4.8%	-1.4%	8.8%	0.0%
Hydro & Wind	4.9	7.4	10.9	11.6	13.2	13.7	8.6%	8.1%	3.4%	13.7%	3.3%
Geothermal	0.4	0.7	0.7	0.8	0.8	0.0	13.0%	2.1%	2.0%	6.6%	-100.0%
Other	29.0	30.9	35.1	36.3	36.0	37.8	1.3%	2.6%	1.8%	-0.8%	4.9%
Net Imports	25.4	3.0	5.4	4.8	8.6	7.3	-34.8%	-	5.2%	78.5%	-15.2%
Solids	1.4	-1.2	-7.3	-8.6	-10.1	-10.7	-	-44.3%	8.2%	17.6%	6.3%
Oil	23.8	4.6	4.6	6.5	4.6	6.6	-28.1%	0.0%	19.2%	-30.1%	44.6%
Crude oil	56.6	10.8	9.7	12.2	7.9	8.6	-28.2%	-2.2%	12.3%	-35.3%	8.6%
Oil products	-32.8	-6.3	-5.1	-5.7	-3.4	2.0	-28.2%	-3.9%	5.8%	-41.4%	-40.2%
Natural gas	0.2	0.1	0.2	0.3	0.3	0.0	-8.0%	-	17.8%	3.4%	-100.0%
Electricity	0.0	-0.5	-2.4	-2.4	-2.7	-3.2	-	-34.9%	0.8%	-12.9%	-14.9%
Gross Inland Consumption	139.7	141.5	163.2	173.8	174.1	182.0	0.3%	2.9%	3.2%	0.2%	4.6%
Solids	5.0	5.6	7.5	7.6	6.1	5.6	2.3%	6.1%	0.3%	-20.1%	-7.5%
Oil	83.0	73.3	81.1	87.9	89.5	95.3	-2.4%	2.0%	4.1%	1.7%	6.5%
Natural gas	16.8	22.7	28.3	30.1	29.2	30.7	6.3%	4.5%	3.1%	-3.1%	5.4%
Other (1)	34.9	39.9	46.2	48.1	49.4	50.4	2.7%	3.0%	2.1%	2.5%	2.0%
Electricity Generation in TWh	123.7	153.7	209.6	223.9	241.8	na	4.4%	6.4%	3.3%	8.0%	no
Nuclear	2.3	5.8	7.3	7.1	7.7	na	19.8%	4.8%	-1.4%	8.7%	no
Hydro & wind	56.0	84.5	125.2	133.9	152.3	na	8.6%	8.2%	3.4%	13.8%	no
Thermal	65.3	63.4	77.2	82.9	81.8	na	0.6%	4.0%	3.6%	-1.4%	no
Generation Capacity in GWe	40.6	45.8	62.7	66.5	67.7	na	2.4%	6.4%	3.0%	1.9%	no
Nuclear	0.4	1.0	1.0	1.0	1.0	na	22.4%	0.0%	0.0%	0.0%	no
Hydro & wind	13.4	18.2	29.5	32.5	33.0	na	6.3%	10.1%	5.0%	1.6%	no
Thermal	26.8	26.6	32.1	32.9	33.6	na	-0.2%	3.8%	1.2%	2.2%	no
Average Load Factor in %	34.7	38.3	38.2	38.4	40.8	na	1.9%	0.0%	0.3%	6.0%	no
Fuel Inputs for Thermal Power Generation	19.3	18.2	22.1	23.7	23.2	na	-1.2%	4.0%	3.6%	-2.2%	no
Solids	1.5	1.8	3.0	2.6	2.1	na	2.8%	11.4%	-7.4%	-17.8%	no
Oil	13.0	9.6	9.8	11.4	11.2	na	-5.8%	0.5%	7.5%	-1.6%	no
Gas	4.5	6.2	8.5	9.0	9.1	na	6.7%	6.6%	2.8%	0.7%	no
Geothermal	0.3	0.6	0.7	0.7	0.8	na	13.0%	2.1%	2.1%	6.5%	-
Other	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	-
Average Thermal Efficiency in %	29.0	29.8	29.9	29.9	30.1	na	0.6%	0.1%	0.0%	0.8%	na
Non-Energy Uses	3.9	4.8	4.9	4.9	6.4	na	4.2%	0.4%	-0.3%	30.3%	na
Total Final Energy Demand	104.5	108.5	123.2	131.1	135.7	na	0.8%	2.6%	3.1%	3.5%	na
Solids	2.6	3.1	3.6	3.9	3.8	na	3.3%	2.9%	4.8%	-3.2%	na
Oil	56.6	53.2	59.0	62.2	64.9	na	-1.2%	2.1%	2.7%	4.2%	na
Gas	7.4	10.8	13.0	14.7	16.2	na	8.0%	3.7%	6.2%	10.4%	na
Electricity	8.7	10.2	12.4	13.7	14.5	na	3.2%	3.9%	5.2%	5.6%	na
Heat	0.0	0.0	0.0	0.0	0.0	na	-	-	-	-	na
Other	29.2	31.1	35.3	36.6	36.3	na	1.3%	2.6%	1.8%	-0.7%	na
CO2 Emissions in Mt of CO2	268.1	264.5	302.4	323.3	331.0	na	-0.3%	2.7%	3.4%	2.4%	na
Indicators											
Population (Million)	151.66	167.35	184.49	191.75	195.57	199.15	2.0%	2.0%	1.9%	2.0%	1.8%
GDP (index 1985=100)	101.8	100.0	109.9	122.6	128.6	136.2	-0.4%	1.9%	5.6%	4.9%	5.9%
Gross Inl Cons./GDP (toe/1985 MECU)	454.2	468.7	491.7	469.4	448.4	442.5	0.6%	1.0%	-2.3%	-4.5%	-1.3%
Gross Inl Cons./Capita (toe/inhabitant)	0.92	0.85	0.88	0.91	0.89	0.91	-1.7%	0.9%	1.2%	-1.8%	2.7%
Electricity Generated/Capita (kWh/inhabitant)	815	918	1137	1168	1236	na	2.4%	4.4%	1.3%	5.9%	na
CO2 Emissions/Capita (t of CO2/inhabitant)	1.8	1.6	1.6	1.7	1.7	na	-2.2%	0.7%	1.4%	0.4%	na
Import Dependency %	17.5	2.0	-3.2	-2.7	-4.8	-4.1	-34.9%	-	-8.1%	78.3%	-14.6%

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

PART XII SHORT-TERM ENERGY OUTLOOK FOR THE EUROPEAN UNION

Summary

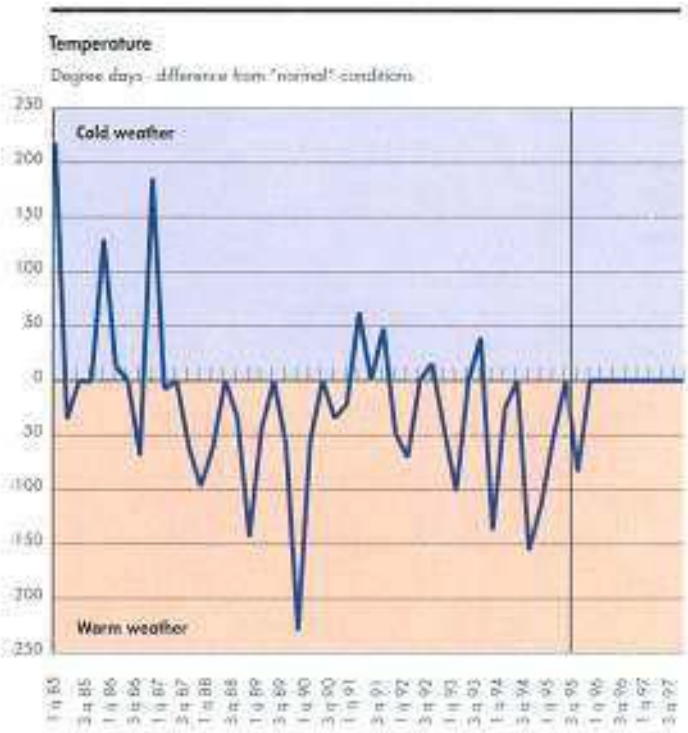
Total primary energy demand in the European Union (EUR-12) increased in 1995 by 2.4%. This evolution is due to economic growth of 2.4% and colder weather than in 1994. Consumption of oil increased 2.8%, sustained by low oil prices, and consumption of natural gas rose by 4.8% with the main part of the growth being in electricity production and final consumption. Demand for solid fuels was down 4.2% on account of lower demand in electricity production as well as in industry. The production of nuclear energy increased 3% and renewable energy by 12%, mainly biomass. Annual CO2 emissions increased 1.1%.

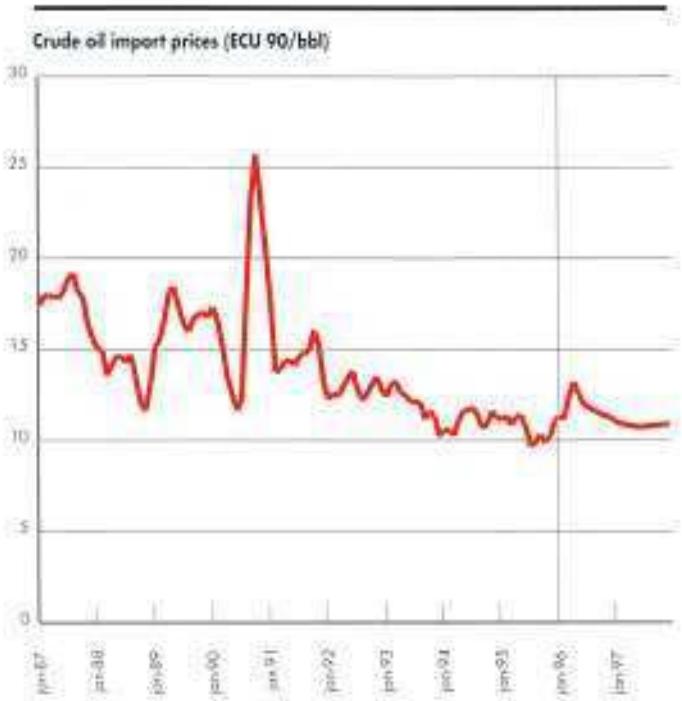
Combining the forecast growth of the EUR-12 economy of 1.4% in 1996 and 2.4% in 1997 and the return to long-term average temperatures result in a total primary energy demand growth of 2.3% and 0.2% in 1996 and 1997 respectively. Oil prices are expected to return in 1997 to 1995 levels expressed in constant terms. Natural gas demand is anticipated to increase by 11% in 1996 resulting from commissioning of new combined cycle plants, and grow a further 4.8% in 1997. Both solid fuel and oil demand continue to decline during 1997.

Working Assumptions for 1996 and 1997

As the model forecasts only the energy sector, it uses variables predetermined outside the model. The main predetermined variables and their values are:

- GDP growth rates of 1.4% in 1996 and 2.4% in 1997. These values are based on the latest information provided by the European Commission's Directorate General for Economic Affairs (DG II). Industrial activity is anticipated to increase 2.0% in 1996 and 3.0% in 1997. Private consumption is foreseen to grow 1.4 %in 1996 and 2.2% in 1997.
- Normal weather conditions, defined as the average of past observations in the EUR-12, are assumed to exist in 1996 and 1997.
- The average price of European Union crude import is presumed to be 19$/bbl in 1996 and 17.9$/bbl in 1997.





The GDP growth forecast for 1996 is below the long-term trend, but 1997 GDP growth is excpected to return to the trend. Inflation in 1996 and 1997 is foreseen to remain at a low level, respectively 3.4% and 3.2%. Investment growth is lower in 1996 (2.2%) than 1995 (3.5%) but it will increase to 4.2% during 1997. Weather effect is measured using so-called degree days, which is a function of temperature. After two warm years the temperature is assumed to return to the long-term average causing a change of +11% in this coldness indicator. The oil price is also expected to return to the level of the previous two years, notwithstanding the variation in 1996.

Methodological Note

The forecasts are made with a neural network system. The system was constructed to estimate and forecast final demand of energy by fuel (13 aggregates). The energy balance is produced based on technical data (e.g. electricity generation capacity) and information from member states on their primary energy production.

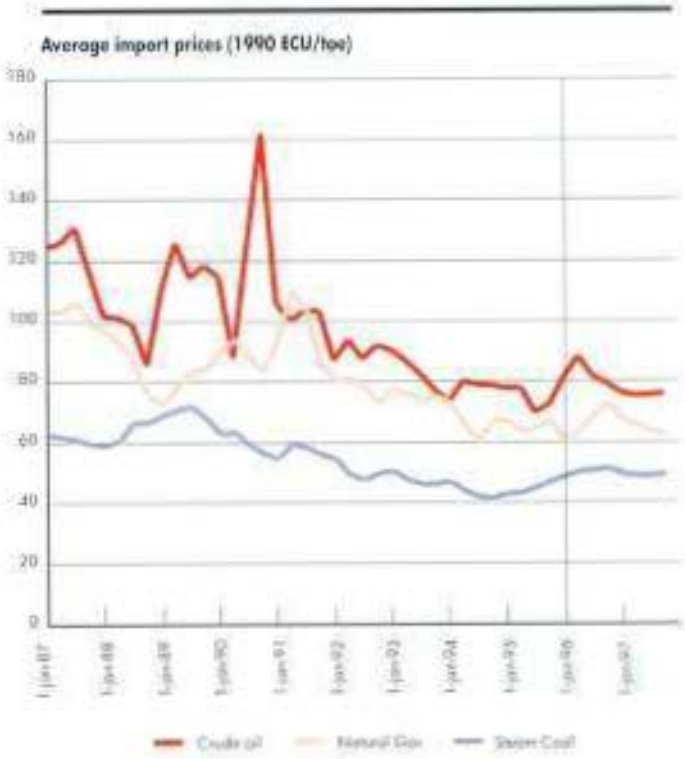
This work has been realised with the assistance of Automation Products & Services Europe (APS) NV (Antwerpen) using their "Process Insights" computer programme. Mr Moreau from Muse sprl assisted in formulating the model.

The data used are monthly deliveries to final consumers as provided by Eurostat. There may be some notable differences compared to annual energy balances. All historical data before 1990 was revised in order to merge all official data now available from ex-GDR. However, all macroeconomical monthly and quarterly data are still not at hand for EUR-12 with ex-GDR. This work is being completed by Eurostat. The same applies for the data of the new member states. In the near future the new member states as well as ex-GDR will be completely incorporated in the Eurostat databases.

Results

1. Energy prices

Different forms of energy can often act as substitutes for each other and so their prices also affect one another. Oil has a long history of being price leader in the world energy markets causing quick changes in all energy prices and on the other hand being affected by prices and demand other forms of energy much more slowly. In the forecast it is expected that steam coal import prices remain relatively constant while the price of natural gas will mostly follow the evolution of crude oil price.



Energy **prices in final consumer markets** (including European Union excise and VAT taxes) are influenced fundamentally by the changes in corresponding international markets. Average excise taxes are assumed to increase slowly in real terms during 1996 and 1997, in line with ongoing fiscal harmonisation.

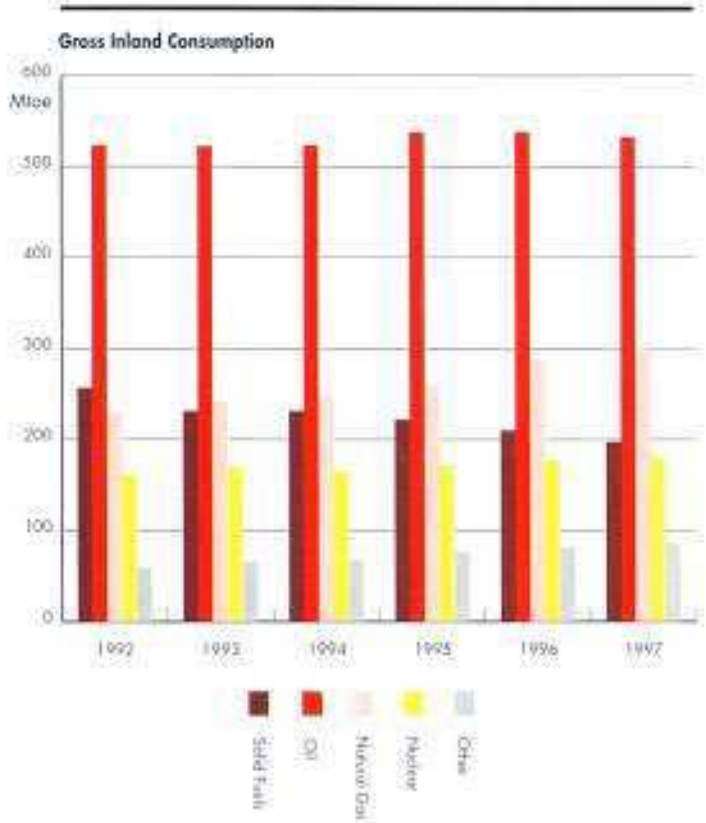
- The changes in **gasoline and diesel prices** are different. Since 1992 gasoline prices have increased slowly, but the diesel price has been stable. In 1996 both fuels are expected to rise in conjuction with the development of crude oil price. Fiscal harmonisation is anticipated to affect mainly diesel. In 1997 prices will lower, however not returning down to their 1995 levels.

- For **industrial consumers,** the downward trend of natural gas and electricity prices is likely to continue. On the other hand, fuel oil and steam coal prices that were relatively constant since 1992, are expected to increase moderately reflecting events in the international markets and a tightening of environmental requirements.

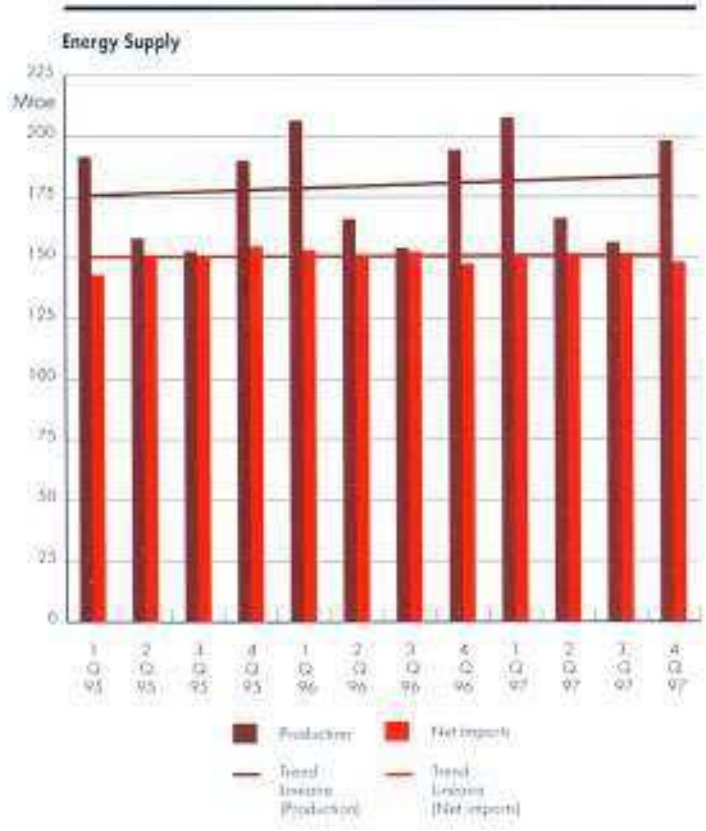
- The rise of heating oil prices for the **domestic sector** will increase the competitiveness of natural gas and electricity.

2. Energy Demand

Total energy demand is expected to grow 2.3% in 1996, and only 0.2% in 1997. The increase in 1996 is partly due to GDP growth of 1.4% but it results mainly from the assumption that normal weather conditions will exist. This means 11% more heating degree-days than in 1995. Results show solid fuels steadily losing their share in total energy demand from 21% in 1992 to 15% in 1997. The oil share, which stayed relatively constant between 1992 and 1995 at 42.5%, will decline to 41% in 1997. Natural gas became the second most important fuel in 1993 and it is the only fuel whose share of total consumption has steadily increased, rising from 19% in 1992 to 23% in 1997. The contribution of nuclear increased from 13% in 1992 to 14% in 1993, and it is expected to stay around this figure.



Total **domestic energy production** is on an upward trend due to significant increase in natural gas production and a slight growth of oil production. On the other hand, solid fuel production is expected to continue its decline. Other primary sources, with the exception of hydropower production, are expected to continue to grow in the near future. Altogether, the share of net imports in total energy supply is decreasing and the energy **import dependency** of the European Union is likely to reach 46% in 1997, compared to 50% in 1992.



Solid Fuels

Total demand for hard coal has decreased steadily since 1992. The economic recession of 1993 accelerated this downward trend and solid fuel demand dropped drastically 10% during that year. The decline has gone on in the past few years with 12.7% decrease in 1994, but slowed to a 1.0% decrease in 1995. The downward trend is expected to continue in the near future displaying 4.4% decline in 1996 and 6% in 1997. The power generation sector is the driving force for solid fuel demand. This is likely to be reinforced in the future given that industry and the domestic and tertiary sectors are expected to further switch away from coal due to its inconvenience of use. The contribution of solid fuels for electricity generation is also anticipated to decrease in the future as natural gas gains more ground.

In 1995, for the first time net imports of hard coal exceeded domestic production, and this trend will get stronger in 1996 and 1997. Hard coal deliveries to industrial consumers are expected to decline sharply in 1996. A further reduction of demand in some specific markets in 1997, such as iron, steel and cement industries, is foreseen. The domestic and tertiary sectors are on a continuing downward trend.

Production and consumption of coke are closely connected to the activity level of the iron and steel industry and some domestic and tertiary consumers. In both these sectors, demand for coke is decreasing. In the iron & steel sector the main reason is the penetration of electrical furnaces.

Lignite consumption, after an 18% reduction between 1992 and 1995, will stabilise and have only a 6.5% decrease in the next two years.

Oil

Gross inland oil consumption is expected to be unchanging in 1996 and to decline in 1997 (-1.0%) after the 1995 increase of 2.8%. Domestic production of crude oil is expected to continue to grow, although slowly, and to meet 27% of domestic refining input. The share has been increasing since 1992 (21%). Since 1993 refinery output has exceeded total domestic demand, with an excess of about 4% for export. This figure is expected to maintain constant during 1996 and 1997.

Transport demand dominates the oil sector but this share has descended from 54.5% in 1992 to 53.0% in 1995. The forecast period expects the transport share in the total oil demand to stay about 53%. Gasoline consumption stabilises and gasoil demand declines. Aviation kerosene use increases constantly.

Oil use for power generation will decline in 1996 and 1997. Despite its attractive price, it seems that heavy fuel oil is going to be replaced by natural gas, which can be foreseen from the number of new units being erected. Additionally, heavy fuel oil introduces environmental protection complications for power generators due to its relatively high sulphur content compared to gas.

Crude oil production in the European Union is expected to grow faster than gross inland consumption. Taking into account the stock expansion, oil import dependency will remain at the same level in 1996 and 1997 after the decline during 1992 to 1995.

Natural Gas

Natural gas demand has increased steadily since 1992. Between 1992 and 1995, more than 80% of the total increase in gross inland consumption was met by gas. The main reasons were high consumption in power generation (+9 Mtoe) and final consumption sectors (+17 Mtoe). In 1996 and 1997, natural gas demand is anticipated to increase 11% and 5% respectively.

The high growth rates, especially in 1996, result from further gas use in final demand sectors (8.5%) assuming normal weather conditions and from 30% growth in the power sector with 6 GW of new combined cycle units to be commissioned.

In 1997, with no change in weather conditions compared to 1996, gas consumption is expected to level out in final demand sectors, but to continue its growth in power generation by some 30% for the second consecutive year.

Domestic production of natural gas is expected to increase by 13% in 1996 and 2% in 1997. Early indications in 1996 show an increase of 20% in the first quarter compared with the first quarter of 1995. The ratio between production and imports is predicted to remain constant in 1996 and 1997 limiting the import dependency to 37%.

Electricity

Demand for electricity has increased constantly for many years and generally faster than GDP, but in 1993 and 1994 growth slowed down to less than 1%. In 1995 a growth of 2.6% was attained in line with the GDP growth. Final electricity demand is expected to continue to grow 2.9% and 2.7% in 1996 and 1997, respectively. Total net generation increases 2.6% in 1996 and 2.5% in 1997.

Nuclear electricity production is likely to increase 3.5% in 1996 and 2.1% in 1997. These relatively low growth rates compared to recent history follow from nearly no growth in total installed nuclear capacity (1.6 GW increase in 1996 and 1.3 GW in 1997) and slight improvement in load factor. Hydropower production is assumed to stay around its 1995 level. Geothermal production, being rather insignificant in the total picture, is expected to increase as some new units will be commissioned. These three sources are expected to account together for 44% of total generation in 1995 and 1996, not changing too much from previous years.

Conventional thermal generation of electricity is mainly based on solid fuels, oil and natural gas. In 1992, solid fuels contributed 67% (47% hard coal and 20% lignite), oil 18% and gas 11%. Between 1992 and 1995, the share of solid fuels declined steadily in favour of natural gas, which reached the share of oil in 1995. In 1996 and 1997 the trend is expected to continue and gas becomes clearly the second important fuel in thermal power generation ahead of lignite and oil. The predicted shares of different fuels in 1997 are 57% solid fuels (40% hard coal and 17% lignite), 25% natural gas and 15% oil.

Energy Indicators

The energy intensity in Europe got better by 0.7% p.a. between 1990 and 1994. In 1995 the indicator stayed unchanged. According to the forecast there will be a 0.8% deterioration in 1996 followed by 2.1% gain in 1997. The long term declining tend will continue, but not as fast as earlier (-0.5% p.a. on the average during the period from 1990 to 1997).

CO2 emission forecasts are based on two parts of the basic energy forecast, total primary energy consumption and the shares of different energy forms. Emissions declined constantly from 1990 to 1994 (-3.3%). In 1995 there was 1.1% growth in emissions as gross inland consumption increased 2.4%. In 1996 there will be 0.7% increase in CO2 emissions and 1.1% decrease in 1997. Emissions from power generation will continue to lower due to the shift from solid fuels to natural gas and improvements in efficiency. In 1996, increasing heating consumption in domestic and tertiary sectors will push up CO2 emissions despite the growing peneration of natural gas in these sectors.

CO2 EMISSIONS

	1992	1993	1994	1995	1996	1997
Emissions (Million tonnes of CO2)						
Solid Fuels	1010,5	911,5	912,1	873,9	827,7	778,3
Oil	1414,5	1421,8	1411,6	1454,9	1452,5	1438,1
Natural Gas	551,2	580,4	592,7	620,8	690,1	722,3
Total	2976,2	2913,7	2916,5	2949,7	2970,3	2938,6
Emissions (Indices 1992=100)						
Solid Fuels	100,0	90,2	90,3	86,5	81,9	77,0
Oil	100,0	100,5	99,8	102,9	102,7	101,7
Natural Gas	100,0	105,3	107,5	112,6	125,2	131,0
Total	100,0	97,9	98,0	99,1	99,8	98,7

MACROECONOMIC, ENERGY PRICES AND WEATHER ASSUMPTIONS

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
A. MACROECONOMIC INDICES (1985=100)																		
A.1. Gross Domestic Product	125.3	125.7	126.2	126.4	126.4	127.3	128.1	128.9	129.3	130.4	131.3	132.1	120.0	119.6	122.9	125.9	127.7	130.7
% change from prior year	3.0	2.6	2.2	1.8	0.9	1.3	1.5	2.0	2.3	2.4	2.5	2.4	0.9	-0.3	2.8	2.4	1.4	2.4
% Change from prior quarter	0.9	0.4	0.4	0.2	0.0	0.7	0.6	0.7	0.3	0.8	0.7	0.6						
A.2. Private Consumption	128.9	129.4	129.9	130.1	130.1	131.0	131.8	132.7	132.8	133.9	134.8	135.6	123.5	123.6	126.8	129.6	131.4	134.3
% change from prior year	2.8	2.4	2.0	1.6	0.9	1.2	1.5	2.0	2.1	2.2	2.3	2.2	1.4	0.1	2.6	2.2	1.4	2.2
% Change from prior quarter	0.7	0.4	0.4	0.2	0.0	0.7	0.6	0.7	0.1	0.8	0.7	0.6						
A.3. Industrial Production	102.6	102.2	92.9	104.0	103.4	104.3	95.3	106.7	103.5	106.2	99.0	113.2	97.6	94.5	98.3	100.4	102.4	105.5
% change from prior year	5.1	2.2	0.6	0.6	0.8	2.1	2.6	2.5	0.1	1.8	3.8	6.2	-1.1	-3.4	4.1	2.1	2.0	3.0
% Change from prior quarter	-0.8	-0.4	-9.0	12.0	-0.6	0.9	-8.6	11.9	-3.0	2.7	-6.8	14.4						
A.4. Iron&Steel Production	102.6	107.1	95.0	94.4	91.8	98.5	99.2	100.7	98.1	99.2	99.9	102.3	93.2	89.4	97.9	99.8	97.6	99.9
% change from prior year	6.4	3.4	4.1	-6.0	-10.5	-8.0	4.4	6.7	6.9	0.7	0.7	1.5	-5.0	-4.1	9.6	1.9	-2.2	2.4
% Change from prior quarter	2.1	4.4	-11.3	-0.7	-2.7	7.3	0.7	1.5	-2.6	1.1	0.7	2.4						
A.5. Chemical Production	115.5	116.1	103.9	108.3	114.5	116.9	105.4	110.4	110.9	115.8	107.1	114.7	102.5	101.9	108.8	111.0	111.8	112.1
% change from prior year	5.8	4.1	0.7	-2.4	-0.9	0.7	1.5	1.7	-3.2	-1.0	1.6	3.9	2.5	-0.6	6.8	2.0	0.7	0.3
% Change from prior quarter	3.9	0.5	-10.5	4.5	5.5	2.1	-9.9	-4.7	0.5	-4.4	-7.5	7.0						
B. EXCHANGE RATE																		
1 ECU = xx US$	1.27	1.33	1.31	1.32	1.29	1.26	1.27	1.27	1.28	1.28	1.28	1.28	1.30	1.17	1.19	1.31	1.31	1.29
% change from prior year	13.1	14.6	7.0	6.2	1.2	-5.4	-3.3	-3.6	-0.9	1.3	0.5	0.5	-4.6	-9.6	1.4	10.1	0.3	-1.4
% Change from prior quarter	2.5	4.7	-1.4	0.3	-2.2	-2.1	0.7	0.0	0.5	0.0	0.0	0.0						
C. INTERNATIONAL ENERGY PRICES																		
Imported Crude Oil (EUR/bbl)	11.1	11.1	10.0	10.4	11.6	12.6	11.7	11.3	10.9	10.8	10.8	10.9	12.9	12.0	11.1	10.6	11.8	10.8
Imported natural Gas	66.8	63.1	64.5	67.2	59.9	63.4	68.4	72.8	67.6	65.5	63.4	62.5	78.01	75.41	66.36	65.4	66.1	64.5
Imported Steam Coal	42.8	43.1	44.9	46.9	48.3	50.2	50.5	51.2	49.3	48.7	48.8	49.2	50.1	49.1	48.7	44.4	50.1	49.0
D. WEATHER																		
Degree Days	1056	320	0	835	1170	371	0	919	1170	371	0	919	2357	2354	2142	2211	2460	2460
% change from prior year	2.2	-7.3	0.0	9.4	10.8	16.0	0.0	10.0	0.0	0.0	0.0	0.0	-7.5	-0.1	-9.0	3.3	11.2	0.0

FINAL CONSUMER ENERGY PRICES IN REAL TERMS

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
A. Oil Products																		
Prices (90ECU/toe)																		
Gasoline	1036	1055	1040	1046	1093	1193	1121	1094	1086	1064	1087	1090	1006	1014	1036	1044	1125	1087
Diesel	551	555	547	551	595	638	628	612	596	591	596	604	545	558	555	551	618	597
Heating Oil	351	349	336	350	379	368	346	340	338	327	308	317	347	346	311	347	358	322
Residual Fuel Oil	97	102	101	109	113	106	103	98	104	105	108	112	102	99	107	102	105	107
Growth rate from previous period in %																		
Gasoline		1.8	-1.4	0.5	4.6	9.1	-6.0	-2.4	-0.7	-0.2	0.2	0.4		0.8	2.2	0.8	7.8	-3.4
Diesel		0.8	-1.5	0.8	8.0	7.3	-1.7	-2.6	-2.6	-0.7	0.8	1.4		2.4	-0.5	-0.7	12.2	-3.5
Heating Oil		-0.6	-3.6	4.1	8.3	-3.0	-6.0	-1.5	-0.7	-3.2	-5.9	3.1		-0.3	-10.0	11.4	3.3	-10.0
Residual Fuel Oil		4.2	-0.9	8.7	3.0	-5.6	-3.2	-5.2	6.4	1.1	2.8	3.6		-3.4	8.7	-4.7	2.7	2.2
B. Natural Gas																		
Prices (90ECU/toe)																		
Household	262	256	236	260	236	246	262	283	267	256	246	243	297	279	280	253	257	253
% prix frontière	391%	406%	366%	386%	394%	389%	383%	389%	394%	392%	389%	389%	381%	370%	422%	387%	388%	391%
Industry	119	116	112	117	104	107	114	121	112	109	105	104	123	120	116	116	111	107
% prix frontière	178%	184%	174%	174%	174%	169%	166%	166%	166%	166%	165%	165%	158%	159%	175%	177%	168%	166%
Growth rate from previous period in %																		
Household		-2.0	-7.8	9.8	-9.0	4.2	6.4	8.0	-5.7	-3.9	-3.9	-1.3		6.1	0.4	-9.6	1.3	-1.5
Industry		-2.5	-3.4	4.5	-11.1	2.9	6.1	6.6	-7.2	-3.3	-3.4	-1.2		-2.4	-3.3	0.0	-4.0	-3.7
C. Coal																		
Prices (90ECU/toe)																		
Household	349	353	350	350	348	381	368	369	359	357	360	365	347	346	346	351	367	360
Industry	120	119	123	130	132	135	138	140	137	136	137	139	126	125	124	123	136	137
Growth rate from previous period in %																		
Household		1.2	-0.9	0.1	-0.7	9.7	-3.4	0.2	-2.6	-0.7	0.8	1.4		-0.1	-0.1	1.4	4.6	-1.8
Industry		-1.0	3.5	5.6	2.0	2.0	2.0	1.9	-2.6	-0.7	0.8	1.4		-0.9	-0.6	-1.1	11.0	0.4
D. Electricity																		
Prices (90ECU/100 kWH)																		
Household	10.93	11.21	11.05	11.16	11.20	11.35	11.37	11.42	11.24	11.18	11.17	11.19	11.49	11.39	11.47	11.34	11.34	11.19
Industry	6.45	6.30	6.45	6.54	6.32	6.44	6.46	6.50	6.35	6.30	6.29	6.30	6.48	6.46	6.45	6.44	6.43	6.31
Household		2.6	-1.4	1.1	0.3	1.3	0.2	0.5	-1.6	-0.5	-0.1	0.2		-0.9	0.7	-1.2	0.0	-1.3
Industry		2.3	2.3	1.5	-3.5	1.9	0.3	0.7	-2.4	-0.8	-0.1	0.3		-0.2	-0.1	-0.3	0.1	-1.9

SOLID FUELS : SUPPLY AND DISPOSAL (MTOE)

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
A. HARD COAL																		
Production	20.6	19.8	20.0	20.6	20.1	18.8	18.5	18.5	18.4	17.4	17.4	17.7	110.8	94.9	78.8	81.0	75.9	70.9
Growth rate from previous period in %		*-4.2*	*1.3*	*2.8*	*-2.3*	*-6.6*	*-1.3*	*0.0*	*-1.0*	*-5.2*	*0.2*	*1.6*		*-14.4*	*-17.0*	*2.8*	*-6.3*	*-6.7*
Net imports	20.7	20.3	20.7	22.0	22.7	21.9	18.2	15.9	23.9	19.0	16.1	14.4	88.6	73.4	75.3	83.7	78.6	73.3
Growth rate from previous period in %		*-1.8*	*2.2*	*6.1*	*3.1*	*-3.2*	*-17.2*	*-12.7*	*50.5*	*-20.4*	*-15.0*	*-10.9*		*-17.2*	*2.6*	*11.1*	*-6.0*	*-6.7*
Gross Inland Consumption	45.0	38.5	37.7	45.9	46.6	39.2	33.9	37.0	46.0	35.0	31.0	34.5	193.1	171.2	173.1	167.0	156.7	146.5
Growth rate from previous period in %		*-14.3*	*-2.2*	*21.7*	*1.6*	*-15.9*	*-13.4*	*9.2*	*24.1*	*-23.9*	*-11.4*	*11.4*		*-11.4*	*1.1*	*-3.5*	*-6.2*	*-6.5*
Transformation input	39.4	32.8	32.2	40.4	42.1	34.3	29.2	32.2	41.6	30.4	26.5	29.9	163.3	144.4	146.4	144.9	137.8	128.3
of which :																		
Public Power generation	30.9	25.6	24.7	28.0	33.9	24.8	20.7	24.0	33.6	22.4	18.8	22.7	112.6	101.7	101.5	114.4	108.3	102.0
Growth rate from previous period in %		*-17.2*	*-3.3*	*13.4*	*20.8*	*-26.7*	*-16.7*	*16.0*	*39.9*	*-33.4*	*-16.0*	*20.6*		*-9.6*	*-0.2*	*12.7*	*-5.4*	*-5.8*
Cokeries	7.9	8.3	8.1	7.8	7.4	8.8	8.0	7.6	7.2	7.4	7.2	6.6	37.9	33.3	31.4	32.0	31.7	28.4
Growth rate from previous period in %		*4.9*	*-2.5*	*-3.9*	*-4.4*	*18.5*	*-9.1*	*-5.0*	*-5.1*	*3.3*	*-3.4*	*-7.6*		*-12.2*	*-5.8*	*2.0*	*-0.7*	*-10.4*
Deliveries to final consumers	5.5	5.7	5.5	5.4	4.5	4.9	4.7	4.8	4.4	4.6	4.5	4.7	29.9	26.8	26.7	22.2	18.9	18.2
Growth rate from previous period in %		*3.6*	*-3.7*	*-1.4*	*-17.5*	*9.4*	*-4.5*	*3.2*	*-9.0*	*4.8*	*-1.3*	*3.1*		*-10.2*	*-0.5*	*-16.9*	*-14.8*	*-3.5*
B. COKE																		
Net Imports	0.4	0.7	0.7	0.7	0.5	0.7	0.8	0.7	0.5	0.7	0.8	0.8	0.5	1.6	1.8	2.5	2.6	2.8
Gross Inland Consumption	0.9	1.0	0.8	0.7	0.5	0.7	0.8	0.8	0.5	0.8	0.9	0.8	0.2	1.7	3.5	3.3	2.8	2.9
Coking Plants Production	3.4	3.6	3.6	3.4	3.3	3.9	3.5	3.4	3.2	3.3	3.2	2.9	18.2	15.3	13.7	14.1	14.1	12.6
Deliveries to Final Consumers	4.3	4.6	4.3	4.2	3.8	4.6	4.4	4.1	3.7	4.1	4.1	3.7	18.1	17.0	17.2	17.4	16.9	15.5
Growth rate from previous period in %		*5.3*	*-5.0*	*-3.8*	*-9.6*	*22.5*	*-5.5*	*-5.7*	*-10.1*	*9.7*	*-0.2*	*-7.9*		*-5.8*	*1.1*	*1.3*	*-3.1*	*-7.9*
C. LIGNITE																		
Production	13.2	12.4	12.0	13.3	13.7	12.3	11.4	12.6	12.5	11.7	11.1	12.3	62.4	57.6	54.4	50.9	50.1	47.6
Gross Inland Consumption	13.4	12.6	12.1	13.5	13.9	12.5	11.6	12.8	12.7	11.9	11.3	12.5	63.8	58.7	55.2	51.7	50.8	48.3
Growth rate from previous period in %		*-6.1*	*-3.7*	*11.7*	*2.9*	*-10.4*	*-7.0*	*10.1*	*-0.7*	*-6.7*	*-4.7*	*10.3*		*-8.0*	*-5.9*	*-6.4*	*-1.7*	*-4.9*
Transformation Input	12.1	11.4	11.1	12.2	12.8	11.4	10.8	11.6	11.6	10.9	10.5	11.5	56.6	52.2	50.4	46.9	46.6	44.5
Public Power Generation	11.1	10.2	10.0	11.0	11.8	10.4	9.8	10.6	10.7	9.9	9.7	10.6	48.0	45.0	44.7	42.3	42.5	40.9
Growth rate from previous period in %		*-7.7*	*-2.1*	*9.4*	*7.5*	*-12.1*	*-5.7*	*8.5*	*1.1*	*-7.7*	*-2.1*	*9.4*		*-6.2*	*-0.6*	*-5.4*	*0.5*	*-3.8*
Briquettes Plants	1.0	1.2	1.1	1.2	1.0	1.1	1.0	1.0	0.9	1.0	0.9	0.9	8.6	7.2	5.7	4.6	4.0	3.6
Growth rate from previous period in %		*14.0*	*-5.9*	*5.5*	*-18.3*	*10.9*	*-8.5*	*2.5*	*-11.1*	*10.9*	*-13.4*	*-0.4*		*-16.3*	*-21.0*	*-20.1*	*-11.3*	*-10.6*
Deliveries to Final Consumers	1.3	1.2	1.0	1.4	1.2	1.0	0.9	1.2	1.1	1.0	0.7	1.0	7.2	6.5	4.8	4.8	4.3	3.8
Growth rate from previous period in %		*8.1*	*-16.0*	*41.7*	*-15.5*	*-10.6*	*-18.3*	*37.6*	*-8.0*	*-10.6*	*-22.7*	*33.7*		*-9.8*	*-26.1*	*0.1*	*-11.3*	*-10.6*

OIL AND NATURAL GAS : SUPPLY AND DISPOSAL (MTOE)

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
A. OIL																		
A.1. Supply																		
Primary Production	40.9	36.5	39.3	41.2	41.3	36.8	39.7	41.6	42.4	37.7	40.7	42.6	118.4	123.5	155.1	157.8	159.4	163.4
Crude	39.9	35.7	38.5	40.3	40.3	36.1	38.9	40.7	41.3	37.0	39.9	41.7	114.1	118.6	151.6	154.4	155.9	159.8
Oil Products	1.0	0.7	0.7	0.9	1.0	0.7	0.8	0.9	1.0	0.8	0.8	1.0	4.3	4.9	3.529	3.4	3.5	3.5
Net Imports	96.3	106.1	104.0	105.6	102.3	102.6	107.8	102.6	96.5	103.1	106.3	102.7	443.8	433.2	405.3	412.1	415.2	408.7
Crude & Feedstock	101.5	108.0	107.9	110.0	112.4	110.5	108.2	107.3	103.8	106.7	108.0	107.1	437.1	454.2	433.4	427.3	438.5	425.5
Oil Products	-5.1	-1.9	-3.9	-4.4	-10.1	-7.9	-0.5	-4.8	-7.3	-3.5	-1.7	-4.3	6.7	-21.1	-28.1	-15.3	-23.2	-16.8
Bunkers	-8.0	8.6	9.0	8.6	8.0	8.6	9.0	8.7	8.1	8.7	9.2	8.8	34.3	35.3	34.0	34.2	34.4	34.8
Gross Inland Consumption	135.4	130.8	130.1	142.0	138.7	127.9	134.6	137.4	132.6	129.0	133.7	137.7	523.9	522.6	523.8	538.3	538.6	533.0
Growth rate from previous period in %		-10.1	-2.0	1.6	-3.2	-0.3	5.0	-4.8	-5.9	-6.9	3.1	-3.4		-2.4	-6.4	1.7	-0.8	-1.6
Transformation Energy Consumption	18.4	17.9	14.5	21.5	18.5	17.4	14.9	20.3	17.8	17.3	14.9	19.6	76.7	71.7	69.9	72.2	71.1	69.6
Refineries Input	141.4	143.7	146.4	150.2	152.7	146.6	147.1	148.0	145.1	143.6	147.9	148.7	551.2	572.8	585.0	581.7	594.4	585.3
Refineries Net Output	132.6	133.8	140.6	139.2	143.5	136.7	140.4	137.6	136.1	133.7	140.6	138.6	516.3	536.1	548.9	546.2	558.3	549.0
Refineries Efficiency in %	93.8	93.1	96.0	92.7	94.0	93.3	95.4	93.0	93.8	93.1	95.1	93.2	93.7	93.6	93.8	93.9	93.9	93.8
Public Power Generation Input	9.6	8.0	8.7	10.5	9.3	7.6	8.1	10.0	8.8	7.4	7.7	9.5	41.7	35.0	33.7	36.7	35.0	33.3
A.2. Inland Deliveries																		
Total	117.1	112.9	115.7	120.5	120.2	110.5	119.7	117.1	114.7	111.7	116.8	118.2	450.3	450.7	450.5	466.1	467.5	463.4
Growth rate from previous period in %		-3.6	2.5	4.2	-0.3	-8.1	8.3	-2.2	-2.0	-2.6	6.4	-0.6		0.1	0.0	3.5	0.3	-0.9
Motor Gasoline	26.3	28.8	29.3	28.6	27.5	29.1	29.4	28.9	27.3	29.4	29.6	28.0	118.3	116.4	114.7	113.0	114.9	114.3
Growth rate from previous period in %		9.5	1.9	-2.6	-3.7	5.7	1.2	-1.6	-5.6	7.6	0.6	-5.2		-1.6	-1.4	-1.6	1.7	-0.5
Kerosene	8.1	8.8	9.7	8.8	9.2	9.4	9.9	8.9	9.1	9.7	10.5	9.9	30.5	32.0	33.8	35.4	37.4	39.2
Growth rate from previous period in %		9.0	9.8	-8.8	4.4	2.2	4.7	-10.3	2.5	7.3	8.0	-6.2		5.1	5.4	4.9	5.5	4.9
Gasoil (total)	52.5	45.9	45.9	53.3	49.9	39.2	49.8	55.5	50.9	41.4	48.6	53.7	186.4	194.8	192.8	197.6	194.5	194.6
Growth rate from previous period in %		-12.7	0.2	16.0	-6.3	-21.4	26.8	11.5	-8.4	-18.7	17.5	10.6		4.5	-1.1	2.5	-1.6	0.0
Automotive Diesel	24.6	25.6	25.2	23.1	23.0	26.0	24.1	24.4	21.3	23.1	23.5	24.5	96.5	95.1	103.3	98.5	95.4	92.3
Growth rate from previous period in %		4.4	-1.6	-8.6	-0.4	4.5	0.3	1.4	-12.9	8.6	2.0	3.9		-1.4	8.6	-4.7	-3.1	-3.2
Heating gas oil	28.0	20.2	20.7	30.2	27.0	15.3	25.7	31.1	29.6	18.3	25.1	29.3	89.9	99.7	89.5	99.1	99.0	102.2
Growth rate from previous period in %		-27.7	2.4	46.1	-10.8	-43.5	68.6	21.0	-4.8	-38.3	37.1	16.9		10.9	-10.3	10.8	-0.1	3.2
Heavy fuel oil	9.2	7.4	7.6	7.2	8.3	10.1	7.6	5.1	5.0	7.0	6.9	6.6	31.3	32.5	31.1	31.4	31.0	25.5
Growth rate from previous period in %		-19.2	2.8	-4.8	14.1	21.7	-24.9	-32.3	-2.7	41.3	-1.7	-5.3		3.8	-4.3	1.1	-1.2	-17.8
Other Products	21.0	22.0	23.1	22.6	25.3	22.7	23.1	18.6	22.5	24.2	23.2	20.0	83.8	75.0	78.1	88.8	89.7	89.8
Growth rate from previous period in %		5.0	4.9	-2.4	11.9	-10.2	1.8	-19.4	20.8	7.4	-4.0	-14.0		-10.6	4.3	13.6	1.0	0.2

OIL AND NATURAL GAS : SUPPLY AND DISPOSAL (MTOE) - CONTINUED

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
B.NATURAL GAS																		
Primary Production	53.1	33.8	26.1	50.2	63.9	40.6	26.6	53.6	66.2	39.8	27.5	55.5	145.4	156.1	157.5	163.2	184.7	188.9
Net Imports	25.7	23.7	24.3	26.6	27.8	25.2	25.3	28.3	29.9	27.0	27.2	30.4	87.7	86.5	90.6	100.3	106.5	114.5
Stock var	-9.5	5.0	10.8	2.9	-3.2	0.3	6.8	-1.2	-5.1	2.0	8.9	-4.6	3.2	0.2	0.0	3.4	2.7	1.3
Gross Inland Consumption	88.3	52.6	39.6	79.7	94.9	65.4	45.1	83.1	101.1	64.8	45.7	90.4	229.9	242.4	248.1	260.1	288.5	302.1
Transf. Input & Own Consump.	9.9	8.4	8.9	11.6	12.1	10.4	11.0	14.6	16.3	13.2	13.4	18.1	25.7	31.7	35.2	38.9	48.2	61.0
Public Power Generation	7.6	6.6	7.3	8.6	9.2	8.4	9.7	12.1	13.3	11.2	12.0	15.5	21.2	25.1	28.5	30.2	39.3	51.9
Available for Final Consumption	78.4	44.2	30.7	68.1	82.9	55.0	34.0	68.5	84.9	51.6	32.3	72.3	204.2	210.6	213	221.3	240.3	241.1
of which electricity autoproduction	2.7	2.3	2.6	3.0	3.1	2.5	2.8	3.3	3.1	2.7	3.0	3.5	7.6	8.1	8.8	10.6	11.7	12.2

SUMMARY ENERGY BALANCE (MTOE)

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
Production																		
Solid Fuels	33.8	32.2	32.0	33.9	33.8	31.1	30.0	31.1	30.9	29.1	28.5	30.0	173.2	152.5	133.1	131.9	126.0	118.4
Hard Coal	20.6	19.8	20.0	20.6	20.1	18.8	18.5	18.5	18.4	17.4	17.4	17.7	110.8	94.9	78.8	81.0	75.9	70.9
Lignite	13.2	12.4	12.0	13.3	13.7	12.3	11.4	12.6	12.5	11.7	11.1	12.3	62.4	57.6	54.4	50.9	50.1	47.6
Oil	40.9	36.5	39.3	41.2	41.3	36.8	39.7	41.6	42.4	37.7	40.7	42.6	118.4	123.5	155.1	157.8	159.4	163.4
Natural Gas	53.1	33.8	26.1	50.2	63.9	40.6	26.6	53.6	66.2	39.8	27.5	55.5	145.4	156.1	157.5	163.2	184.7	188.9
Heat	46.6	40.3	39.7	47.4	49.0	41.4	41.3	48.6	49.6	42.9	42.2	49.6	163.7	172.5	168.9	173.9	180.2	184.3
Nuclear	46.0	39.7	39.1	46.7	48.3	40.8	40.7	47.9	48.8	42.2	41.5	48.8	161.3	170.0	166.5	171.6	177.6	181.3
Geothermy	0.6	0.5	0.6	0.7	0.7	0.6	0.6	0.7	0.8	0.7	0.7	0.8	2.4	2.5	2.4	2.4	2.6	3.0
Primary Electricity	4.8	4.6	3.7	3.3	4.0	4.4	3.7	4.3	4.3	4.4	3.7	4.2	15.5	18.6	17.7	16.5	16.3	16.6
Other	12.3	10.8	11.9	14.0	14.4	11.7	12.9	15.2	14.4	12.4	13.7	16.3	35.3	37.7	40.9	49.1	54.3	56.9
Total	191.6	158.2	152.7	190.1	206.5	166.0	154.1	194.4	207.6	166.3	156.4	198.2	651.5	660.9	673.2	692.5	720.9	728.5
Net Imports																		
Solid Fuels	21.1	20.9	21.5	22.7	23.1	22.6	18.9	16.6	24.3	19.7	17.0	15.1	89.1	75.0	77.1	86.2	81.3	76.1
Hard Coal	20.7	20.3	20.7	22.0	22.7	21.9	18.2	15.9	23.9	19.0	16.1	14.4	88.6	73.4	75.3	83.7	78.6	73.3
Oil	96.3	106.1	104.0	105.6	102.3	102.6	107.8	102.6	96.5	103.1	106.3	102.7	443.8	433.2	405.3	412.1	415.2	408.7
Crude Oil	101.5	108.0	107.9	110.0	112.4	110.5	108.2	107.3	103.8	106.7	108.0	107.1	437.1	454.2	433.4	427.3	438.5	425.5
Petroleum Products	-5.1	-1.9	-3.9	-4.4	-10.1	-7.9	-0.5	-4.8	-7.3	-3.5	-1.7	-4.3	6.7	-21.1	-28.1	-15.3	-23.2	-16.8
Natural Gas	25.7	23.7	24.3	26.6	27.8	25.2	25.3	28.3	29.9	27.0	27.2	30.4	87.7	86.5	90.6	100.3	106.5	114.5
Electricity	0.1	0.5	0.6	0.0	0.0	0.5	0.6	0.0	0.0	0.5	0.6	0.1	1.0	1.3	0.9	1.1	1.2	1.2
Total	143.2	151.3	150.3	154.9	153.3	150.9	152.5	147.4	150.8	150.4	151.0	148.3	621.7	596.0	574.1	599.6	604.2	600.5
Bunkers																		
Petroleum Products	8.0	8.6	9.0	8.6	8.0	8.6	9.0	8.7	8.1	8.7	9.2	8.8	34.3	35.3	34.0	34.2	34.4	34.8

SUMMARY ENERGY BALANCE (MTOE) - CONTINUED

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
Gross Inland Consumption																		
Solid Fuels	59.3	52.1	50.6	60.1	61.0	52.4	46.3	50.6	59.2	47.6	43.2	47.8	256.8	231.6	231.8	222.1	210.3	197.8
Hard Coal	45.0	38.5	37.7	45.9	46.6	39.2	33.9	37.0	46.0	35.0	31.0	34.5	193.1	171.2	173.1	167.0	156.7	146.5
Coke	0.9	1.0	0.8	0.7	0.5	0.7	0.8	0.8	0.5	0.8	0.9	0.8	-0.2	1.7	3.5	3.3	2.8	2.9
Lignite	13.4	12.6	12.1	13.5	13.9	12.5	11.6	12.8	12.7	11.9	11.3	12.5	63.8	58.7	55.2	51.7	50.8	48.3
Oil	135.4	130.8	130.1	142.0	138.7	127.9	134.6	137.4	132.6	129.0	133.7	137.7	523.9	522.6	523.8	538.3	538.6	533.0
Crude Oil & Feedstock	132.2	134.5	137.2	141.1	143.5	137.4	138.0	138.8	135.9	134.4	138.7	139.5	513.0	534.6	546.8	543.0	557.6	548.6
Petroleum Products	3.2	-3.7	-7.1	0.9	-4.9	-9.4	-3.3	-1.4	-3.3	-5.5	-5.0	-1.8	10.9	-12.0	-23.0	-6.6	-19.1	-15.6
Natural Gas	88.3	52.6	39.6	79.7	94.9	65.4	45.1	83.1	101.1	64.8	45.7	90.4	229.9	242.4	248.1	260.1	288.5	302.1
Heat	46.6	40.3	39.7	47.4	49.0	41.4	41.3	48.6	49.6	42.9	42.2	49.6	163.7	172.5	168.9	173.9	180.2	184.3
Nuclear	46.0	39.7	39.1	46.7	48.3	40.8	40.7	47.9	48.8	42.2	41.5	48.8	161.3	170.0	166.5	171.6	177.6	181.3
Geothermy	0.6	0.5	0.6	0.7	0.7	0.6	0.6	0.7	0.8	0.7	0.7	0.8	2.4	2.5	2.4	2.4	2.6	3.0
Primary Electricity	4.9	5.1	4.3	3.3	4.1	4.9	4.3	4.3	4.3	4.9	4.3	4.3	16.5	19.9	18.6	17.6	17.5	17.8
Other	14.2	12.4	13.7	16.1	16.6	13.5	14.8	17.5	16.6	14.3	15.6	18.7	40.6	43.4	47.0	56.5	62.4	65.4
Total	348.6	293.3	277.9	348.6	364.2	305.5	286.4	341.4	363.3	303.5	284.9	348.6	1231.4	1232.4	1238.2	1268.5	1297.5	1300.3
Import Dependency (%)																		
Hard Coal	46.0	52.6	55.0	48.0	48.7	56.0	53.5	42.8	51.9	54.2	52.0	41.6	45.9	42.9	43.5	50.1	50.2	50.1
Oil	71.1	81.1	79.92	74.4	73.8	80.2	80.0	74.7	72.8	80.0	79.5	74.6	84.7	82.9	77.4	76.5	77.1	76.7
Natural Gas	29.1	45.1	61.3	33.4	29.3	38.4	56.1	34.0	29.6	41.7	59.4	33.6	38.2	35.7	36.5	38.6	36.9	37.9
Total	41.1	51.6	54.09	44.4	42.1	49.4	53.3	43.2	41.5	49.6	53.0	42.6	50.5	48.4	46.4	47.3	46.6	46.2
Deliveries to Final Consumers (*)																		
Solid Fuels	11.1	11.4	10.8	11.0	9.4	10.6	9.9	10.1	9.2	9.6	9.3	9.4	55.1	50.3	48.7	44.4	40.0	37.6
Oil	117.1	112.9	115.7	120.5	120.2	110.5	119.7	117.1	114.7	111.7	118.8	118.2	450.3	450.7	450.5	466.1	467.5	463.4
Natural Gas	78.4	44.2	30.7	68.1	82.9	55.0	34.0	68.5	84.9	51.6	32.3	72.3	204.2	210.6	213.0	221.3	240.3	241.1
Derived Gases	2.9	3.1	3.0	2.8	2.3	3.2	2.9	2.7	2.2	2.7	2.7	2.5	12.2	11.3	11.4	11.7	11.2	10.2
Electricity	40.7	35.48	34.42	38.84	43.06	36.34	34.49	39.96	44.56	36.98	35.08	41.4	143.7	144.5	145.7	149.5	153.8	158.0
Biomass	11.1	9.8	10.7	12.7	13.0	10.6	11.6	13.8	13.0	11.2	12.4	14.7	31.9	34.1	36.9	44.3	49.0	51.3
Total	261.3	216.9	205.3	253.9	270.8	226.2	212.7	252.1	268.6	223.9	210.7	258.5	897.5	901.5	906.1	937.3	961.8	961.6

(*) includes deliveries to electricity autoproducers

ELECTRICITY : SUMMARY BALANCE

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
A.1. Generation (Twh)																		
Total Gross Generation	559.7	484.7	469.6	537.8	590.4	494.3	469.0	550.1	609.7	502.2	475.7	568.1	1982.9	1989.3	2006.5	2051.7	2103.8	2155.7
Growth rate from previous period in %		*-13.4*	*-3.1*	*14.5*	*9.8*	*-16.3*	*-5.1*	*17.3*	*10.8*	*-17.6*	*-5.3*	*19.4*		*0.3*	*0.9*	*2.2*	*2.5*	*2.5*
Produced by Pumping	3.5	3.7	4.1	4.8	3.3	3.9	3.9	4.1	3.1	3.5	3.8	4.0	14.9	12.4	13.1	16.1	15.1	14.5
Primary production (Hydro)	55.9	53.7	42.9	38.9	47.0	50.6	42.8	49.7	49.9	51.4	43.3	48.8	180.0	215.8	205.2	191.5	190.1	193.4
Growth rate from previous period in %		*6.2*	*9.9*	*18.6*	*874.1*	*7.7*	*-15.3*	*15.9*	*0.5*	*3.0*	*-15.8*	*12.7*		*19.9*	*-4.9*	*-6.7*	*-0.7*	*1.8*
Derived production :	500.3	427.2	422.6	494.0	540.2	439.8	422.3	496.4	556.6	447.2	428.7	515.3	1788.1	1761.2	1788.2	1844.1	1898.7	1947.8
Nuclear	192.6	166.3	163.7	195.6	202.2	170.7	170.2	200.4	204.3	176.5	173.8	204.3	675.1	711.6	697.0	718.2	743.5	758.9
Growth rate from previous period in %		*-13.6*	*-1.6*	*19.5*	*3.3*	*-15.5*	*-0.3*	*17.7*	*2.0*	*-13.6*	*-1.6*	*17.6*		*5.4*	*-2.0*	*3.0*	*3.5*	*2.1*
Conventional Thermal	306.9	260.2	258.0	297.5	337.0	268.2	251.2	295	351.2	269.7	253.9	309.8	1109.4	1045.9	1087.8	1122.6	1151.4	1184.6
Growth rate from previous period in %		*-15.2*	*-0.8*	*15.3*	*13.3*	*-20.4*	*-6.3*	*17.4*	*19.1*	*-23.2*	*-5.9*	*22.0*		*-5.7*	*4.0*	*3.2*	*2.6*	*2.9*
Geothermal	0.8	0.8	0.9	0.9	1.0	0.9	0.9	1.0	1.1	1.0	1.0	1.2	3.5	3.7	3.4	3.4	3.8	4.3
Absorbed by Pumping	4.9	5.2	5.7	6.8	4.7	5.1	5.5	5.7	4.5	5.0	5.4	5.6	24.4	21.1	20.1	22.6	20.9	20.4
Own consumption	29.7	27.4	25.9	28.9	31.3	27.1	25.7	29.7	32.3	27.5	26.1	30.6	113.0	111.4	112.2	111.8	113.8	116.6
Total Net Generation	530.0	457.3	443.7	508.8	559.1	467.2	443.3	520.5	577.4	474.6	449.6	537.5	1869.9	1877.9	1894.3	1939.8	1990.0	2039.1
Growth rate from previous period in %		*-13.7*	*-3.0*	*14.7*	*9.9*	*-16.4*	*-5.1*	*17.4*	*10.9*	*-17.8*	*-5.3*	*19.5*		*0.4*	*0.9*	*2.4*	*2.6*	*2.5*
A.2. Disposal (Twh)																		
Total Net Generation	525.1	452.0	438.0	502.0	554.4	462.1	437.8	514.8	572.9	469.7	444.3	531.9	1845.6	1856.8	1874.2	1917.2	1969.1	2018.7
Net Imports	0.7	6.1	6.5	-0.5	0.4	6.1	6.7	0.2	0.3	6.0	7.0	0.7	12.0	15.6	10.9	12.8	13.4	13.9
Total Available	525.8	458.2	444.5	501.5	554.9	468.2	444.4	515.0	573.2	475.6	451.2	532.6	1857.5	1872.4	1885.1	1930.0	1982.5	2032.6
Growth rate from previous period in %		*-12.9*	*-3.0*	*12.8*	*10.6*	*-15.6*	*-5.1*	*15.9*	*11.3*	*-17.0*	*-5.1*	*18.0*		*0.8*	*0.7*	*2.4*	*2.7*	*2.5*
Distribution losses	34.6	30.1	29.2	33.0	36.0	30.4	28.9	33.5	36.8	30.5	29.0	34.2	120.1	123.5	123.2	126.9	128.8	130.5
Consumption Internal Market	491.2	428.1	415.3	468.5	518.8	437.8	415.6	481.5	536.4	445.1	422.3	498.4	1737.5	1748.9	1762.0	1803.1	1853.7	1902.2
Energy Branch Consumption	17.8	15.5	15.0	16.9	18.1	15.3	14.5	16.8	18.2	15.1	14.4	16.9	66.7	68.9	68.1	65.2	64.8	64.6
Available for Final Consumption	473.5	412.6	400.3	451.6	500.7	422.5	401.0	464.7	518.2	430.0	407.9	481.4	1670.8	1680.0	1693.8	1737.9	1788.9	1837.5
Growth rate from previous period in %		*-12.9*	*-3.0*	*12.8*	*10.9*	*-15.6*	*-5.1*	*15.9*	*11.5*	*-17.0*	*-5.1*	*18.0*		*0.6*	*0.8*	*2.6*	*2.9*	*2.7*

ELECTRICITY : SUMMARY BALANCE - CONTINUED

	Quarter												Year					
	1Q95	2Q95	3Q95	4Q95	1Q96	2Q96	3Q96	4Q96	1Q97	2Q97	3Q97	4Q97	1992	1993	1994	1995	1996	1997
B. Input to Conventional Thermal Power Stations (Mtoe)																		
Solids																		
Hard coal	32.4	26.8	25.9	29.4	35.5	26.0	21.7	25.1	35.2	23.4	19.7	23.7	121.7	111.8	110.6	114.4	108.3	102.0
Growth rate from previous period in %		*-17.2*	*-3.3*	*13.4*	*20.8*	*-26.7*	*-16.7*	*16.0*	*39.9*	*-33.4*	*-16.0*	*20.6*		*-8.1*	*-1.0*	*3.5*	*-5.4*	*-5.8*
Lignite	12.1	11.2	10.9	12.0	12.9	11.3	10.6	11.5	11.7	10.8	10.6	11.5	52.7	48.9	48.1	46.1	46.3	44.6
Growth rate from previous period in %		*-7.7*	*-2.1*	*9.4*	*7.5*	*-12.1*	*-5.7*	*8.5*	*1.1*	*-7.7*	*-2.1*	*9.4*		*-7.3*	*-1.7*	*-4.0*	*0.5*	*-3.8*
Oil	10.9	9.0	9.8	11.9	10.5	8.6	9.2	11.3	10.0	8.4	8.7	10.7	45.8	41.1	38.9	41.6	39.7	37.8
Growth rate from previous period in %		*-16.6*	*8.4*	*20.9*	*-11.1*	*-18.3*	*7.3*	*22.2*	*-11.2*	*-16.6*	*3.8*	*23.6*		*-10.4*	*-5.1*	*6.7*	*-4.5*	*-4.8*
Gas																		
Natural gas	10.2	9.0	9.9	11.6	12.3	10.9	12.4	15.3	16.4	13.9	14.9	19.0	28.8	33.2	37.3	40.7	51.0	64.2
of which autoproducers	2.7	2.3	2.6	3.0	3.1	2.5	2.8	3.3	3.1	2.7	3.0	3.5	7.6	8.1	8.8	10.6	11.7	12.2
Growth rate from previous period in %		*-12.3*	*9.9*	*18.1*	*5.4*	*-11.0*	*13.8*	*23.3*	*6.8*	*-15.3*	*7.7*	*27.2*		*15.4*	*12.4*	*9.2*	*25.2*	*25.9*
Derived gas	1.3	1.1	1.0	1.1	1.2	1.1	1.0	1.1	1.2	1.0	0.9	1.0	5.6	5.5	5.1	4.6	4.4	4.1
of which autoproducers	1.0	0.9	0.8	0.9	1.0	0.9	0.8	0.8	0.9	0.8	0.7	0.8	4.0	3.8	3.4	3.7	3.5	3.3
Growth rate from previous period in %		*-12.3*	*-9.6*	*7.8*	*11.3*	*-12.3*	*-9.6*	*7.8*	*11.0*	*-12.3*	*-9.6*	*7.8*		*-1.9*	*-6.4*	*-11.0*	*-5.0*	*-5.9*
Other	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5	4.8	4.9	5.2	5.4	5.6	5.8
Growth rate from previous period in %		*3.2*	*0.0*	*0.0*	*0.2*	*3.2*	*0.0*	*0.0*	*0.7*	*3.2*	*0.0*	*0.0*		*2.1*	*6.1*	*3.7*	*3.5*	*4.0*
TOTAL	68.2	58.5	58.9	67.3	73.8	59.3	56.4	65.8	75.8	58.9	56.2	67.5	259.5	245.3	245.3	252.9	255.3	258.5
Growth rate from previous period in %		*-14.2*	*0.7*	*14.3*	*9.6*	*-19.5*	*-5.0*	*16.6*	*15.3*	*-22.3*	*-4.6*	*20.0*		*-5.4*	*0.0*	*3.1*	*1.0*	*1.3*
Average efficiency	38.7%	38.3%	37.7%	38.0%	0.393	0.389	0.383	0.386	0.398	0.394	0.389	0.395	36.8%	36.7%	38.2%	38.2%	0.388	0.394

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CIS	Community of Independant States
DG II	Directorate-General for Economic Affairs of the European Commission
DG XVII	Directorate-General for Energy of the European Commission
EFTA	European Free Trade Agreement
Energy Intensity	Ratio of GIC to GDP
EU	European Union
GCC	Gulf Co-operation Council
GDP	Gross Domestic Product
GIC	Gross Inland Consumption
GDR	German Democratic Republic
GW	GigaWatt, or 10^9 Watt
IAEA	International Atomic Energy Agency
IEA	International Energy Agency
IMF	International Monetary Fund
kgoe	Kilogram oil equivalent
kl	Thousand litre
kWh	Thousand Watt.hour
l	Litre
MECU	Million ECU
Mt	Million metric tonne
Mtoe	Million toe
NAFTA	North American Free Trade Agreement
OECD	Organisation for Economic Co-operation and Development (excluding Hungary, Czech Republic and Poland)
OLADE	Organizacion Latinoamericana de Energia
S	Sulphur
SOEC	Statistical Office of the European Commission
STEO	Short-Term Energy Outlook for the European Union
t	Metric tonne, or 1000 kilograms
toe	Tonne of oil equivalent, or 10^7 kilocalories, or 41.86 GJ
TWh	Tera Watt.hour, or 10^{12} Watt hour
UN	United Nations
UN-ECE	UN's Economic Commission for Europe
WB	World Bank

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