The energy situation in the Community

SITUATION 1983 □ OUTLOOK 1984

(Report from the Commission to the Council)

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C O N T E N T S

SUMMARY

In 1983 the Community's **energy consumption** declined for the fourth consecutive year, reaching a level 11% lower than in the peak year of 1979. But the rate of decrease in 1983, at just over 1%, was less than in previous years. **The share of oil** in total energy consumption also continued to decrease, to 47% in 1983. Community **energy production** increased by just over 4% to a record level of 515 million tons of oil equivalent. **Net energy imports** were reduced from 46 to 42% of total energy demand, as compared with 55% reliance on imports as recently as 1979 and 64% in 1973.

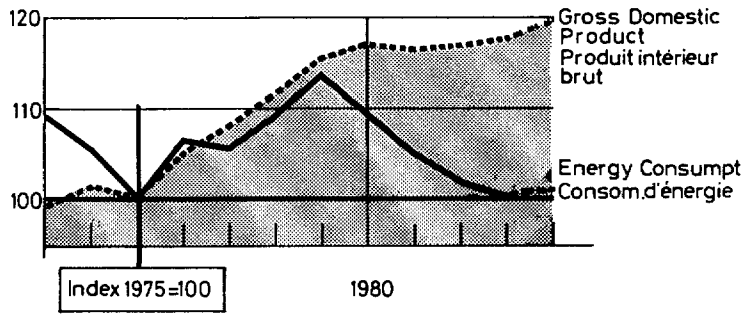
In terms of the specific fuels: **oil demand** fell again in 1983 by about 4,6%, and is now 27% lower than in 1973. **Community oil production** increased by 10% to reach 2,6 million barrels a day. **Net oil imports** fell by 12% and accounted in 1983 for only 32% of the Community's energy requirements, compared to 62% in 1973.

Solid fuels demand fell by about 4% in 1983, as did the Community's **solid fuel production. Net coal imports** declined by 20% and stocks increased.

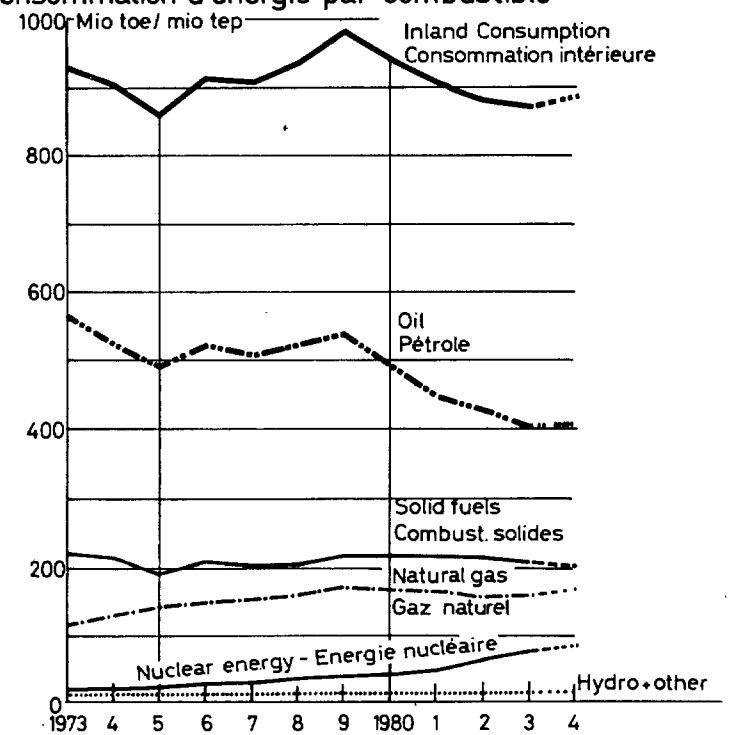
Electricity demand increased slightly in 1983 by 2%, after the fall in demand recorded in 1982. **Electricity production** increased in parallel and the contribution from **nuclear plants** went up by 22%. Production from conventional thermal units decreased by 3%, led by

Graph.I

EUR-10: Energy Consumption and Gross Domestic Product
Consommation d'énergie et produit intérieur brut



EUR-10: Energy Consumption by type of Fuel
Consommation d'energie par combustible



a large fall (20%) in oil use. Coal consumption in power stations was only just above the 1982 level, but natural gas consumption in power stations was 14% higher. Since 1979, nuclear energy has displaced about 30 Mtoe of oil and gas to power stations, which equates to 16% of the reduction in the Community's net oil and gas imports in the period.

Overall **natural gas demand** increased by 2,5% in 1983 after falling slightly in 1982. **Community gas production** increased by about 3%, whilst **net imports of gas** were 6% higher.

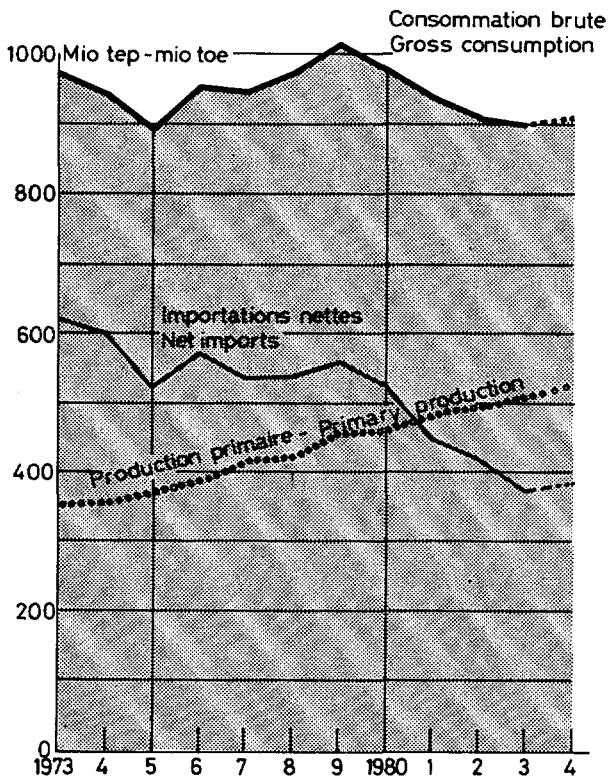
The prospects for 1984, with an expected economic growth of 1,7%, are that there could be a slight increase in **Community energy consumption** for the first time in five years. But **oil demand** is likely to remain about the same. **Nuclear production** is expected to increase by 12%. **Natural gas consumption** may be slightly higher and **solid fuel consumption** slightly lower than in 1983. **Community energy production** in 1984 will again grow, although by less than in previous years. In percentage terms, the **Community's net import reliance** should be virtually unchanged.

The more detailed analysis of energy trends in the remainder of this paper underlines the undoubted progress which has been made in recent years as a result of the strong market signals provided by the oil price increases of 1973/4 and 1979/80. The process of restructuring is continuing but the rate of progress could diminish as the stimulus from high oil prices erodes overtime. Energy policies will need to adapt to the new circumstances so as to ensure that the scope for further improvement is fully exploited.

Graph. 2

EUR-10 : Consommation brute d'énergie et approvisionnements

Gross Consumption of Energy Sources of Supply



ENERGY SITUATION IN THE COMMUNITY

Situation 1983
Outlook 1984

OVERALL ENERGY SITUATION

The Community's **energy consumption** decreased by 1,2% in 1983 - the fourth consecutive year of decline. The Community's energy markets have been characterised by general over-supply. **Oil demand** continued to remain weak, led by plummeting demand for fuel oil as a result of lower use in power stations and the depressed level of industrial activity. In the **natural gas market,** the absence of growth in industrial and domestic demand has led to some Member States diverting their excess contracted supplies to power stations where gas deliveries increased by over 14% in 1983. In the **coal sector,** the recession in the steel industry was the main reason for the fall in coal demand. The surplus coal supplies on the market have resulted in a further increase in Community stocks. In the **electricity sector,** a margin of plant capacity still exists reflecting the lower than expected growth in electricity demand in the early 1980s. Electricity demand did however increase in 1983 by about 2%.

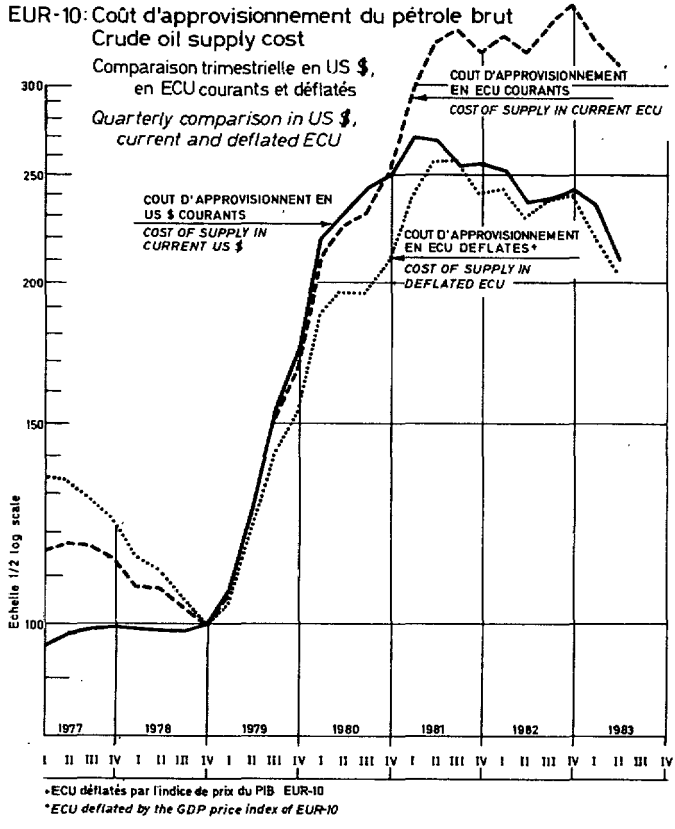
Energy prices, tended to weaken in 1983. The c.i.f. cost of imported crude in dollar terms declined in every month of the year, although a large measure of this fall was offset by the continued appreciation of the dollar against European currencies. Consumer

Graph. 3

EUR-10: Coût d'approvisionnement du pétrole brut
Crude oil supply cost

Comparaison trimestrielle en US $, en ECU courants et déflatés

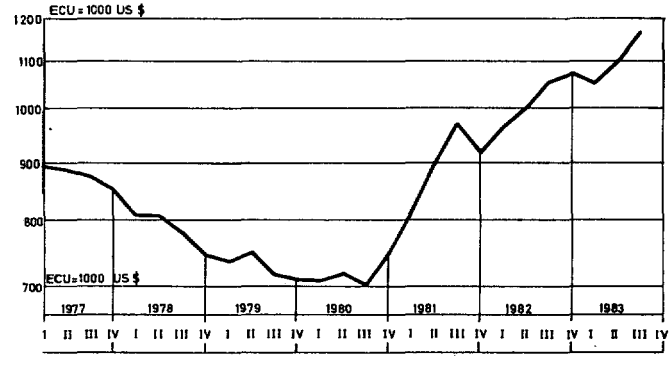
Quarterly comparison in US $, current and deflated ECU



•ECU déflatés par l'indice de prix du PIB EUR-10

*ECU deflated by the GDP price index of EUR-10

Taux de conversion - Conversion rates (1000 US $=.....ECU)



prices for oil products fell for some time but by the end of 1983 had edged back towards end-1982 levels despite the OPEC price reduction. Gas prices, in general, follow oil price movements with a time delay. In a period of falling oil prices, this can be disadvantageous to gas in the short term. The surplus conditions in the coal market have contributed to fierce competition in the international market place with coal import prices (in dollars) falling considerably throughout 1983.

Overall in 1983, it seems that the longer-term effects on demand of the 1979/80 and earlier oil price increases still just outweighed the short-term effects of recently weakening prices and modest economic growth.

The decoupling of energy consumption from GDP continued, although the rate of change was less than in previous years. An important part of this change is due to the 'decoupling' of industrial production from both GDP and industrial energy consumption. Between 1979 and 1983, industrial production in the Community decreased by 4% whilst Commnity GDP showed a marginal 2% increase. In the same period, 'industrial' energy consumption (including the energy sector) declined by at least 13%.

In 1983, the energy coefficient (energy/GDP ratio) improved, per capita consumption decreased and import dependence (particularly on oil) was again reduced. The share of oil in the Community's total energy consumption also continued to decrease (60% in 1973 to 47% in 1983)) whilst electricity consumption per unit of Community GDP

has increased by 6% in the same period. These favourable trends may however tend to diminish as Member States' economies move out of recession.

OIL

(i) International market situation

By far the most significant oil market development in 1983 was the agreement reached in London on 14 March at the OPEC Ministerial Conference - in response to market signals - to reduce the official price of Arabian light marker crude from US$ 34 per barrel (bbl) to US$ 29 bbl; to introduce a production ceiling of 17.5 million barrels per day (M.b/d); and to allocate production quotas to individual Member Countries. This agreement was subsequently reaffirmed in Geneva in December 1983.

The principal factor influencing world market prices has been, and will continue to be, the discipline with which this agreement is observed. Reviews by the OPEC Ministerial Monitoring Committee have so far expressed satisfaction with the way the agreement has been observed and with its effect on the world oil market. The spot markets have generally supported the new range of prices based on the new reference price of $29 bbl.

In 1984, the prospects for OPEC will depend very much on the level of oil demand, which will be influenced by the severity of the winter, the revival of economic growth and

the continued effects of savings and substitution measures. The OECD has forecast a 1,8% increase in world oil demand in 1984 which, if realised, would be the first time since 1979 that oil demand has increased.

(ii) Community Oil Production

Community production of crude oil and feedstocks reached a level of about 130 Mtoe in 1983 (2.6 M.b/d), a 10% increase above 1982. Output from UK fields accounted for 2.3 M.b/d, up 9%, and there were gains totalling 1 MTOE from Italy, Netherlands, Denmark and Greece. In France and Germany the gradual decline in output continued.

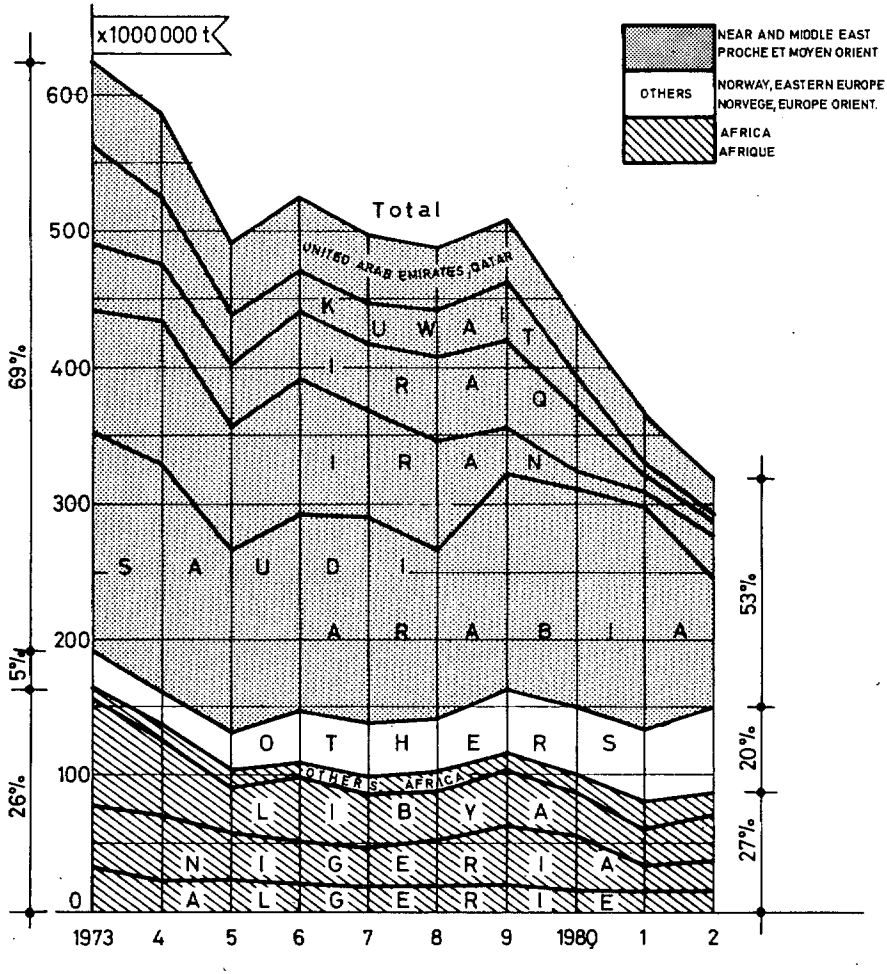
1984 production will benefit from a full year's output from the Magnus and South Brae fields in the North Sea, both brought on stream in the second half of 1983 and expected to peak at 6,5 Mtoe and 5,6 Mtoe respectively in 1985 and 1984. Total Community production could reach about 141 Mtoe in 1984, a further increase of 8,5%.

(iii) Community Oil Imports

Because of lower demand and rising internal production, the Community's net imports of oil are expected to have been about 287 Mtoe in 1983 - 39 Mtoe less than in 1982. This means that the Community's dependence on imported oil for overall energy supply will have been 32%, nearly half the 1973 level (62%). In 1984, this level of dependence is expected to be largely unchanged.

Graph. 4

EUR-10: Crude oil imports from third countries
Importations de pétrole brut en provenance de pays tiers



At Community level, the registration of crude oil imports showed dollar prices in mid-year to be closely grouped about a weighted average of just under $29 bbl FOB, some 14% lower than in December 1982.

In European Currency Units (ECU), however, Community crude oil import prices (FOB) fell by only 4,6% in the first half of the year, reflecting the strengthening of the dollar against European currencies. By November 1983, the ECU had depreciated further against the dollar, by a total of 12% since the start of the year, with the result that ECU prices for crude oil imports had risen back again to end 1982 levels.

The structure of the Community's crude imports continued to change during 1983, broadly following the trends already established during 1982. The Saudi Arabian share decreased very considerably, accompanied by increases in supplies from Africa, Eastern Europe and the North Sea (see Table 1 following). Table 1 shows that OPEC's share of the Community's total crude oil imports was about 60% in 1983 compared to 84% in 1979. But it should be noted that 35% of the Community's crude oil imports still come from a single region, the Arabo-Persian Gulf.

TABLE 1

STRUCTURE OF COMMUNITY IMPORTS OF CRUDE OIL & FEEDSTOCKS

Country of origin	January to September 1982 (Mt)	%	January to September 1983 (Mt)	%
Supplies from the Community(A)	27,5	10,3	34,2	14,2
of which United Kingdom	24,0	9,0	28,9	12,0
Western Hemisphere(B)	19,8	7,4	15,6	6,5
of which Venezuela	5,8	2,2	8,2	3,4
Eastern Europe (C)	13,4	5,0	22,5	9,3
Africa (D)	60,3	22,7	67,6	28,0
of which				
Algeria	11,4	4,3	10,6	4,4
Nigeria	15,8	5,9	20,1	8,3
Libya	21,2	8,0	25,7	10,7
Near & Middle East (E)	130,2	48,9	83,1	34,5
of which				
Saudi Arabia	80,0	30,0	36,3	15,1
Iran	19,5	7,3	18,9	7,8
Iraq	8,3	3,1	8,7	3,6
Kuwait	4,0	1,5	5,4	2,2
U.A.E.	10,3	3,9	9,7	4,0
OTHERS (F)	15,1	5,7	18,1	7,5
OPEC	182,6	68,6	147,2	61,0
TOTAL A+B+C+D+E+F	266,3	100	241,1	100

Source: Eurostat

(iv) Consumer Oil Prices

Oil product prices to consumers fluctuated during 1983, as did spot market prices, but on balance were generally firm. Duties and taxes were increased on virtually all main products by Community Member States with the principal exception of heavy fuel oil. Tax exclusive prices for gasolines and especially heavy fuel oil tended in fact to rise; the latter responding possibly to increased demand from refineries for the better qualities of residue for use as upgrading feedstock. Gas/diesel oil prices were, in general, lower in most Community Member States than in 1982. A synthetic Community consumer oil price index suggests that real oil product prices fell by up to 3,5% in the first half of the year, but thereafter edged back towards beginning-year levels.

(v) Oil Consumption (Table 2, Annex 2)

Preliminary figures suggest that consumption of petroleum products in 1983 will again be significantly lower than in the previous year, probably by around 5%. A recovery of demand in May/June to a level 1% above 1982 proved to be shortlived and was followed by a renewed decline in the third quarter at an increased rate.

Again the fall in consumption affected principally **residual fuel oil**, use of which declined by nearly 20% (after 14% in 1982) as substitution continued in power stations and industrial activity remained depressed. It was exceptionally

high in the Netherlands where there was a switch to gas use in power stations and well above the average in Belgium for the same reason. By contrast, fuel oil consumption fell by much less in Italy and in Greece. International bunker demand was also lower in 1983 reflecting the contraction in international trade.

The decline in **Gas/diesel** consumption was comparatively less due to the strength of demand for automotive use. Consumption had fallen by 1,5% in the first half year, but the fall steepened in the third quarter to 3%. For the year as a whole, consumption of gas/diesel appears to have been some 3% below 1982.

Motor gasoline consumption for the year was little changed, but the market differed considerably from one Member Country to another, from decline of over 5% in Belgium and Ireland to an increase of 2,5% in the United Kingdom, and 3,5% in Greece.

Looking ahead to 1984, the potential stimulus to demand from the March OPEC price reduction will have been weakened, if not eliminated, by the appreciation of the US dollar against European currencies. In any case, the March price decrease (about 15% for the reference crude) was relatively small when compared to the ten-fold increase in crude oil prices since 1973. Reactions to this major increase, particularly the 1979/80 element of it, are still having an effect on trends in oil demand.

These factors indicate that the only source of growth in oil demand for 1984 is likely to be the recovery in economic activity foreseen for most countries and perhaps the effects of a cold winter.

Since the scope for ready substitution of oil by other fuels may have been largely taken up for the time being (for example, residual fuel oil use in power stations is expected to be only slightly lower in 1984), the expected revival in GDP and industrial output could bring with it a reversal of the downward trend of oil consumption noted in recent years, particularly as regards the consumption of fuel oil in inland and bunker trade.

(vi) External Trade in Petroleum Products

Community imports and exports of petroleum products tended to be higher in 1983. But after allowing for imports of residual fuel oil destined for use as a feedstock in refineries, there appears to have been little change in **net** imports of products for consumption which amounted to some 16 million tonnes. This position is not likely to change a great deal in 1984.

Movements in the external balance varied greatly among the Member States. The UK raised its product exports by 15% over 1982, and reduced imports by 30%, thereby improving the net balance by 5,6 m.t. The trend in Denmark and the Netherlands was in the same direction, but less marked. By contrast, net product imports into France increased by 2,5 m.t.; net imports into Germany and Italy were also higher, and Greece's net export balance was reduced.

(vii) Refinery Capacity and Production

Reductions in excess distillation capacity continued throughout 1983 and further closures are foreseen for 1984. Average Community capacity in 1983 was estimated at 660 million tonnes per year (m.t/y), compared with 830 m.t/y at which industry capacity peaked in 1977.

Utilisation remained, however, unsatisfactory with EUR-10 production about 400 m.t. representing 60% of capacity, compared with 80% which the industry regards as an efficient operating level. Stock drawdown reduced the demand on refineries by 17 m.t. at least. Utilisation should rise in 1984 as a result of slightly higher demand and the probable end of the rundown of product stocks.

The refinery situation also differed considerably in the various Member States. Refinery output actually rose in the Netherlands, Denmark and the UK despite the stock drawdown because of the more favourable balance of external product trade mentioned above. Conversely, output fell in France, Germany and Belgium. The sharp drop in Belgium by over 15% reflects the closure of two refineries in 1982.

NATURAL GAS

(i) Gas Consumption

Having fallen for three consecutive years by a total of 8.3% between 1979 and 1982, the Community's natural gas consumption increased slightly in 1983 by 2,5% (Table 1, Annex 2). The market was, however, characterised by oversupply. With low demand from industry and only a limited extension of domestic use, excess contracted volumes have in several Member States been sold to power stations. A large part of the 1983 increase in gas consumption appears to have been due to these sales.

Gas prices have tended to follow oil prices downwards with a lagged effect, thereby disadvantaging gas in the short term.

At the country level, increased consumption is evident in all Community countries except Germany, Italy and Luxembourg, with a particularly strong revival in demand in France, the Netherlands, Belgium and the United Kingdom. There has also been increased penetration of gas in Ireland's energy economy. Deliveries of gas for public power generation have increased markedly in the Netherlands and Belgium, with smaller rises in Germany and Ireland. In France, the domestic sector has mainly accounted for the rise in demand.For the United Kingdom, higher than average economic growth has brought some increase in industrial use alongside a continued increase in the domestic sector. Forecasts for 1984 indicate that

Community demand for gas may be somewhat higher than in 1983, to an extent depending on relative energy prices, the severity of the winter and the speed of economic recovery.

(ii) Gas Supply

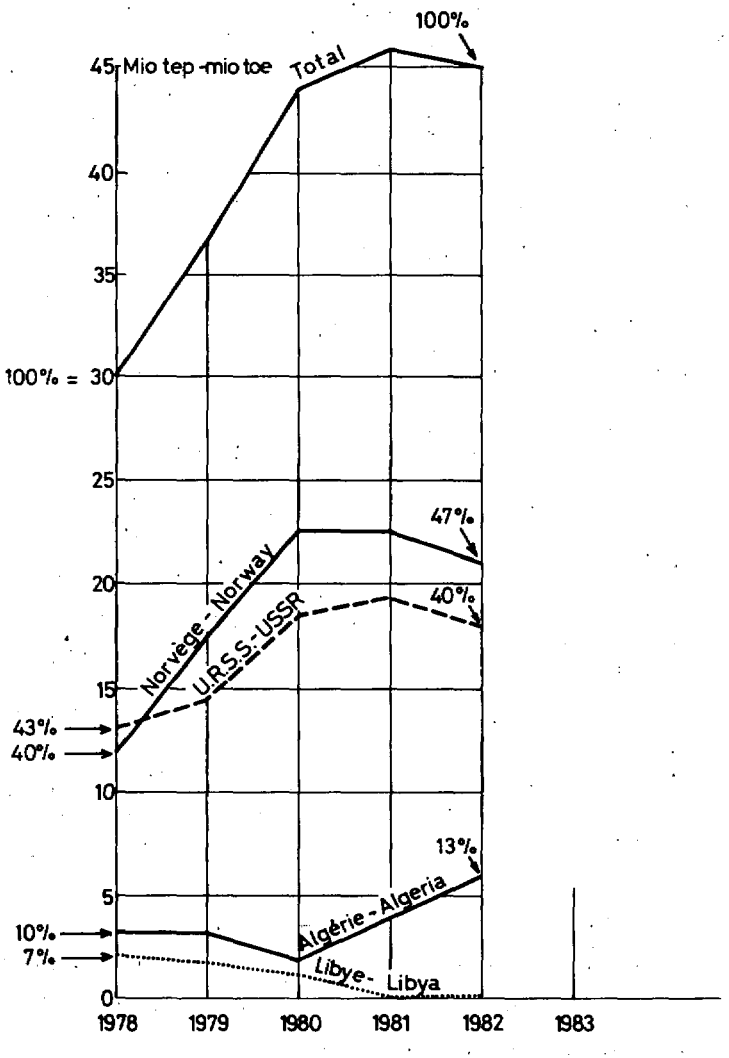
After three consecutive years of falling production, the Community's output of natural gas increased slightly in 1983 (+ 2,7%). Output increased in the Netherlands, UK, Germany, Ireland and Greece. Deliveries of Netherlands gas to its Community partners showed a modest rise in 1983, whilst imports from third countries also increased after the fall in 1982.

Among the external suppliers, Norway remained the most important source, with 43% of total Community gas imports, followed by USSR (33%) and Algeria (24%). Algerian volumes have built up during 1983, and as a result its share of the total third party imports has increased from 13% in 1982, to 24% in 1983. As a result, both the Norwegian and Russian share of imports has decreased in 1983, the latter by more than the former.

The forecasts referred to in (i) above suggest that gas demand in 1984 could be about 2% higher than in 1983. Imports of gas in 1984 are however expected to increase by about 6% because of "minimum take" provisions in import contracts. Community gas production is therefore likely to be slightly lower than in 1983.

Graph.5

EUR-10: Natural gas imports from third countries
Importations de gaz naturel en provenance de pays tiers



(iii) Gas Prices

Imported natural gas is indexed, according to a range of different formulae, to a "basket" of oil prices - particularly fuel oil and/or crude oil prices - usually with some time delay. Imported gas prices are also affected by movements in currency rates and, in particular, by changes in the dollar rate. So although falling crude oil prices in 1983 led to a fall in imported gas prices in 1983, this trend has been moderated by the dollar's upward climb against European currencies.

In a few cases, gas prices have been partly aligned to the price of imported coal.

Gas coming on stream into Community markets in the future will tend to be more expensive. The implications of this for future gas demand and substitution back to oil will need to be taken into account in energy policy formation.

COAL

(i) Coal Consumption

Total Community coal consumption fell in 1983 by about 4,2% compared to 1982. This was mainly accounted for by a decrease in sales of coke to the steel sector. Hard coal consumption remained level at about 287 million tonnes, but could fall slightly in 1984 (see Table 1, Annex 3). Lignite and peat consumption also remained roughly the same as in 1982.

By sector, coal consumption in power stations was similar to 1982 levels. There was some destocking of coal in power stations in France and further growth in power station stocks in the United Kingdom. Hard coal deliveries to coke-oven plants decreased from 80 million tonnes in 1982 to only 68 million tonnes in 1983. The same figure is expected in 1984.

Coke consumption in the steel sector decreased again in 1983 due to the recession in the industry. Only 42 million tonnes is expected to have been consumed in 1983 (3 million tonnes less than in 1982) in spite of an increase in steel output in the United Kingdom. The coke rate per tonne of pig iron has once again tended to fall due to improvements in yield and the search for ways to cut costs; fuel oil injection into blast furnaces has remained minimal.

In other consuming sectors, there seems to be overall stability. Coal consumption in general industry has slightly increased, but this has been offset by reduced sales to the household and tertiary sectors.

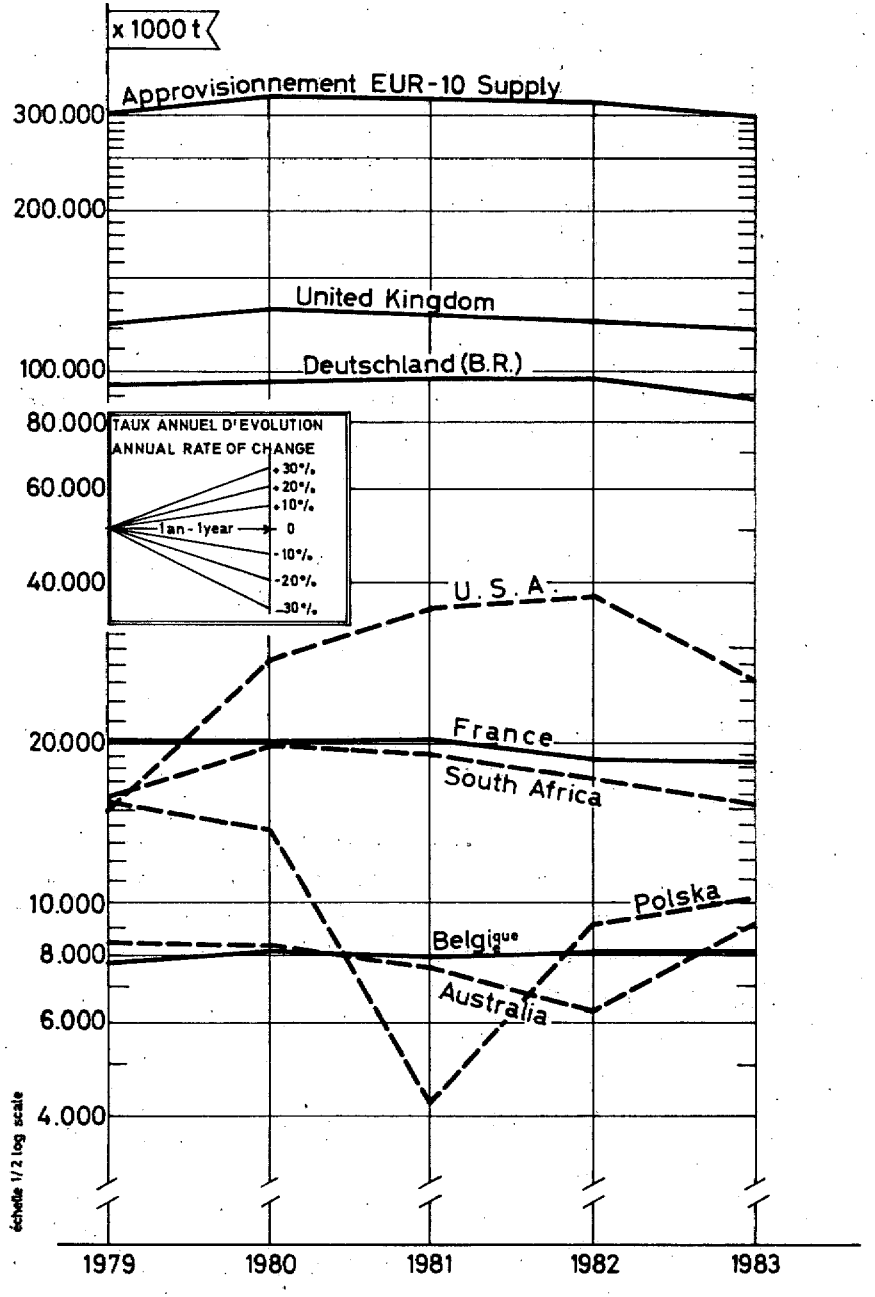
(ii) Coal Supply

Community coal production was about 234 million tonnes in 1983 (including 5 m.t. of recovered products) - some 11 million tonnes lower than in the previous year. A similar decrease is expected in 1984. Imports of coal from third countries were also reduced - by 13 million tonnes in 1983, but should remain at about this rate in tonnes in 1984. The changing pattern of coal suppliers to the Community is illustrated in graph 5.

Graph. 6

Houille - Hard Coal

Production
Importation-Import



Coke production, at about 53 million tonnes in 1983 was 12% lower than in 1982. For 1984, coke production may again decrease slightly.

(iii) Coal Stocks

Total Community stocks of coal and coke (calculated in hard coal equivalent) by the end of 1983 will be about 137 million tonnes - equivalent to some 6 months of consumption. Reduced production in 1984 should result in producer stocks remaining close to the 1983 levels of about 50 million tonnes (excluding the German national reserve).

(iv) Coal Import Prices

Table 2, Annex 3, shows the trend of imported coal prices during 1982 and 1983.

Average c.i.f. import prices for coking coal and steam coal for the first half of 1983 were $ 69 and 60/tce respectively, compared to $ 77 and 71/tce for the first quarter of 1982 - representing falls of 10% and 15% respectively. This reflects the strong competition in the international market place as well as the general slide of energy prices downwards during 1983. Nevertheless, the average price of imported coal is still markedly below the costs of Community coal production which exceeded $ 90/tce in the first half of 1983. The strong international market competition has led to some extremely low quotations for single cargoes of imported coal and this trend could lead to even lower prices for imported coal in 1984.

ELECTRICITY

(i) Electricity consumption

In 1983, electricity demand in the Community is expected to have increased by about 2,0%, reversing the decline in consumption in 1982. (Details in Tables 1, 2 Annex 4).

This reflects some improvement in the economy, with increases in electricity demand occuring in the commercial and industrial sectors in many countries, as well as firmness of demand in the domestic sector. Whilst the commercial and domestic sectors have been the mainstay of electricity demand for many years, the slight but significant upward movement in industrial sector demand is encouraging. The electricity/GDP ratio and electricity consumption per capita both increased again in 1983 (Table 4, Annex 1).

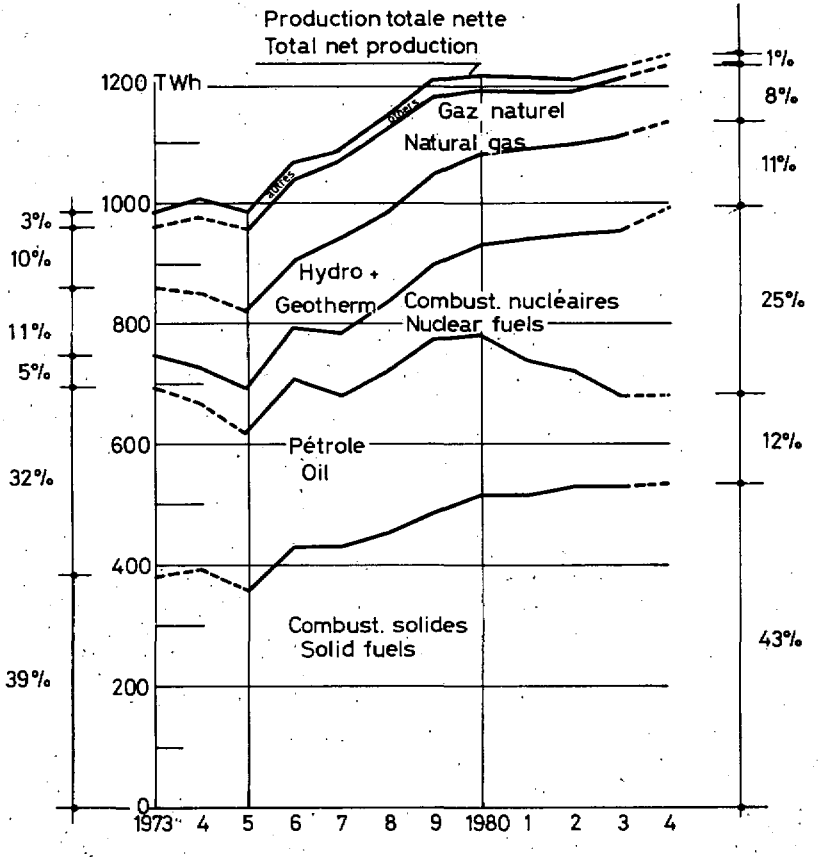
The outlook for 1984 is for the improvement to be maintained. Subject to economic growth, an increase of some 2% in electricity demand in 1984 is foreseeable.

(ii) Electricity Production

In line with demand, electricity production in the Community is expected to have increased in 1983 by some 2%. The contribution of nuclear to electricity production has again risen substantially to 22% as against 19% in 1982. Correspondingly the percentage of electricity generated from

Graph. 7

EUR 10 : Production d'électricité
Electricity production



oil fell from 16% to about 12,5%, i.e. by nearly a quarter. Gas consumption in power stations has, however, increased due to the general oversupply situation in European gas markets.

The effect of these changes is expected to be that, in 1983, 22,5% of electricity production will have been produced from nuclear, 43% from solid fuels, 12,5% from petroleum products, 12% from hydro and 8% from natural gas (see Table 2, Annex 4).

In 1984, a further significant increase in the contribution of nuclear is expected. Output from conventional thermal stations will be around the 1983 level. Electricity penetration in the Community's energy economy should continue in 1984 - with per capita consumption and the electricity/GDP ratio both continuing to rise.

NUCLEAR ENERGY

Installed nuclear production capacity passed to 50 GWe[3] in 1983, rising from 44,9 GWe at the outset of the year to 51,6 GWe at the end. A total of eight new reactors were connected to the grid:

- four pressurized water reactors (PWR) in France: Chinon B2 (870 MWe); Le Blayais 3 and 4 (both 910 MWe); Cruas 1 (880 MWe);

- three advanced gas-cooled reactors (AGR) in the United Kingdom: Dungeness B1 (600 MWe); Heysham A1 (660 MWe); Hartlepool 1 (660 MWe);

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[3] 1 GWe = 1000 MWe.

- one boiling water reactor (BWR) in Germany; Krümmel (1260 MWe).

This does, however, amount to a slight delay in the rate of installation originally foreseen.

The production of electricity from nuclear power plants reached 276 TWh in 1983, 22% higher than in 1982. Nuclear's share in overall electricity generation rose to 22% for the year as a whole.

According to current plans, 1984 should bring a further 12,89 GWe to the grid, so that nuclear generating capacity in the Community should attain 64,4 GWe by the end of the year. Apart from the more conventional reactors (PWRs, BWRs and AGRs), the expected new capacity includes the Superphenix Fast Breeder Reactor (FBR) in France, and the Thorium High Temperature Reactor (THTR) in Germany.

A total of fourteen nuclear reactors should be connected to the grid in 1984:

- in France, the Superphenix fast breeder reactor (1200 MWe) and 5 PWRs: Paluel 1 and 2 (2 x 1290 MWe); Cruas 2, 3 and 4 (3 x 880 MWe); Gravelines C5 (910 MWe).

- in Germany, the THTR at Schmehausen (296 MWe) and the Gundremmingen B BWR(1249 MWe);

- in Belgium 2 PWRs: Doel-4 (1000 MWe) and Tihange-3 (1000 MWe);

- in the United Kingdom 3 AGRs: Dungeness B2 (600 MWe), Heysham A2 (660 MWe) and Hartlepool 2 (660 MWe).

With these new reactors on line, nuclear electricity production should exceed 300 TWh in 1984, increasing nuclear's share of electricity generation to about 25%.

Nuclear energy therefore continues to improve and diversify the structure of the electricity sector in the Community. In the period following the second oil shock in 1979/80, during which electricity demand has remained largely constant, the increase in nuclear energy production has reduced oil and gas use in power stations by about 30 MTOE/year[4].

NUCLEAR FUELS

There have been no supply difficulties for the Community; deliveries have taken place on the basis of contracts concluded by the Supply Agency. This situation should continue. Overcapacity in uranium production and separation remains a feature of the world market.

According to information available to the Supply Agency, deliveries of natural uranium to Community electricity companies increased in 1982 to about 12500 tonnes. Deliveries under spot contracts represented less than 10% of the total.

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[4] 1979 compared to provisional 1983 figures.

The Community's supply dependence on imports remains at around 80% but in 1983 there was some improvement in diversification of supply. There are six major suppliers with no one supplier accounting for more than 25% of the total. In 1983, the market remained a buyer's market, with the average price paid by Community electricity producers for natural uranium under forward contracts slightly lower than the $ 32 per pound (U308) paid in 1982. On the spot market, prices climbed steadily from the $ 17 per pound in October 1982 to reach around $ 24 by October 1983 - the same level as in 1981.

The market for special fissile material continued to be characterized by stockholding and a large number of transactions on the secondary enrichment market. A larger part of the Community's demand for enrichment services was satisfied by facilities located within the Community.

* * * * *

ANNEX 1

TABLE 1

GROSS INLAND CONSUMPTION OF ENERGY IN THE COMMUNITY

	1981 (Eurostat)		1982 (Eurostat)		1983 Estimates		1984 Forecasts	
	Mtoe	%	Mtoe	%	Mtoe	%	Mtoe	%
Hard Coal & equivalents	186,4	20,5	183,3	20,7	175	20,0	173	19,6
Lignite & equivalents	33,5	3,7	32,7	3,7	32	3,7	31	3,5
Crude oil & equivalents	451,7	49,7	430,0	48,7	410	47,0	412	46,6
Natural Gas	165,8	18,2	158,1	17,9	162	18,6	165	18,7
Nuclear Energy	56,6	6,2	63,9	7,2	78,0	8,9	87	9,8
Hydro & Others	15,8	1,7	15,5	1,8	15,5	1,8	16	1,8
TOTAL	909,8	100,0	883,5	100,0	872,5	100,0	884	100,0

TABLE 2

ENERGY SUPPLY IN THE COMMUNITY

Mtoe

	1981[1]		1982[1]		1983[2]		1984[3]	
	Pro-duction	Net Imports	Pro-duction	Net Imports	Pro-duction	Net Imports	Pro-duction	Net Imports
Solid Fuels	186,5	42,2	182,9	46,2	174	37	168	38
Oil	101,7	357,8	118,1	326,2	130	287	141	289
Natural Gas	125,2	42,6	115,9	44,2	119	47	117	50
Nuclear energy	56,6	-	63,9	-	78	-	87	-
Primary electricity, etc	13,9	1,9	13,8	1,7	13,8	1,7	14	2
TOTAL	483,9	444,5	494,6	418,3	514,8	372,7	527	379

[1] Eurostat

[2] Provisional data

[3] Forecasts

ANNEX 1

TABLE 3

PERCENTAGE CHANGE IN GDP AND IN ENERGY CONSUMPTION

	1981/80	1982/81	1983/82 Estimates	1984/83 Forecasts
GROSS DOMESTIC PRODUCT	- 0,4	+ 0,4	+ 0,7*	+ 1,7*
Gross Inland Consumption of energy, of which	- 3,6	- 2,9	- 1,2	+ 1,3
- OIL	- 8,5	- 4,8	- 4,6	+ 0,5
- SOLID FUELS	- 1,3	- 1,8	- 4,2	- 1,4
- NATURAL GAS	- 2,1	- 4,6	+ 2,5	+ 1,8
- NUCLEAR ENERGY	+ 32,5	+ 12,9	+ 22,1	+ 11,5
- HYDRO,GEOTHERMAL & OTHERS	+ 2,6	- 1,9	-	+ 3,2

* Latest estimates (20 January 1984) of the Directorate-General for Economic and Financial Affairs

ANNEX 1

TABLE 4

SELECTED COMMUNITY ENERGY RATIOS

	1973	1981	1982	1983*	1984**
1. ENERGY/ECONOMY:					
Energy-GDP (kgoe/ECU 75)	0,833	0,694	0,673	0,659	0,656
Oil-GDP (kgoe/ECU 75)	0,504	0,344	0,326	0,310	0,306
Electricity-GDP (kwh/ECU 75)	0,941	0,990	0,983	0,994	0,997
2. CONSUMPTION PER CAPITA:					
Energy (toe/capita)	3,5	3,35	3,25	3,21	3,25
Oil (toe/capita)	2,12	1,67	1,58	1,51	1,51
Electricity (Mwh/capita)	3,97	4,77	4,75	4,84	4,94
3. SUPPLY DEPENDENCE ON IMPORTS:					
- for energy	64,0%	47,6%	46,0%	41,6%	41,7%
- for oil	61,6%	38,3%	35,9%	32,0%	31,6%

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* Estimates.

** Forecasts.

ANNEX 2

TABLE 1

EUR-10 NATURAL GAS CONSUMPTION, PRODUCTION AND IMPORTS

(Mtoe)

	1982 Eurostat	1982/1 %	1983 Estimates	1983/2 %	1984 Forecasts	1984/3 %
PRODUCTION	115,9	- 7,4	119	+ 2,7	117	- 1,7
NET IMPORTS	44,2	+ 3,9	47	+ 6,3	50	+ 6,4
CONSUMPTION*	158,1	- 4,6	162	+ 2,5	165	+ 1,8

* Not always equal to the sum of production and net imports, due to stock changes.

ANNEX 2

TABLE 2

EUR-10 - OIL CONSUMPTION, PRODUCTION AND IMPORTS

(Mtoe)

	1982 Eurostat	1982/1 %	1983 Estimates	1983/2 %	1984 Forecasts	1984/3 %
Consumption						
- Inland	430	- 4,8	410	- 4,6	412	+ 0,5
- Bunkers	24,7	- 4,3	24	- 2,8	25	+ 4,2
TOTAL	454,7	- 4,8	434	- 4,5	437	+ 0,7
Production[1]	118,1	+16,1	130	+ 10,1	141	+ 8,5
Stock change[2]	+ 10,4	- -	+ 17	-	+ 7	-
Net Imports	326,2	- 8,8	287	- 12,0	289	+ 0,7

---

[1] Includes regenerated products and condensates.

[2] (+) = decrease of stocks; (-) = increase of stocks. Stock changes in power stations are included.

ANNEX 3

TABLE 1

EUR-10 SOLID FUEL SUPPLY SITUATION

(Mt)

	Production[1]	Imports[2]	Exports	Stock Change[3]	Gross Inland Consumption
1982					
Hard Coal	248,3	72,2	2,6	-15,7	302,2
Coke	60,5	1,0	2,8	- 3,9	54,8
Lignite & turf	163,7	3,8	-	- 1,1	166,4
1983[4]					
Hard Coal	234	61	4	- 4	287
Coke	53	1	2	- 1	51
Lignite & turf	164	2	-	-	166
1984[5]					
Hard Coal	225	62	3	- 1	283
Coke	51	1	2,5	+ 1	49,5
Lignite & turf	162	2	-	-	164

---

[1] Including recovered products. Current production: 1982 = 242 Mt
1983 = 229 Mt
1984 = 220 Mt

[2] Excluding intra-Community trade

[3] (+) = decrease of stocks; (-) = increase of stocks

[4] Estimates

[5] Forecasts

ANNEX 3

TABLE 2

CIF PRICE OF COMMUNITY COAL IMPORTS

Year	Quarter	Coking Coal			Steam Coal		Relation
		Standard Quality $/t[2]	tce[1]		tce[1]		
			Index	$/tce (a)	Index	$/tce (b)	(a)/(b)
1982	I	82	100	77	100	71	108
	II	82	100	77	100	71	108
	III	81	99	76	99	70	109
	IV	80	97	75	93	66	114
1983	I	76	94	72	86	61	118
	II	69	84	65	82	58	112
	III	67	82	63	77	55	115
	IV	66	81	62			

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[1] Tonne of coal equivalent (Calorific value = 29,300 kj/kg (NCV)).

[2] Standard quality: Ash content 6%; water content 5%; volatile matter 24%. Calorific value = 31,100 kj/kg (NCV).

ANNEX 4

E L E C T R I C I T Y

TABLE 1

EUR-10 NET CONSUMPTION

YEAR	THW		% CHANGE
1982	1211,3	1982/1	-0,5%
1983	1236	1982/3	+2,0%
1984	1261	1983/4	+2,0%

TABLE 2

EUR-10 PRODUCTION

(TWH)

		of which: by energy source								
	TOTAL	HYDRO	GEOTHERMAL	NUCLEAR	CONVENTIONAL THERMAL	COAL	LIGNITE	PETROLEUM PRODUCTS	NATURAL GAS	OTHERS
Net Production:										
TWH 1982	1202,8	146,1	2,6	226,9	827,2	420,5	104	192,7	85,8	24,2
1983	1227	144,6	2,7	276	803,7	424	107	155	98	19,7
1984	1251	140	2,8	314	794,2	422	107	151	98	16,2
% Change										
1983/82	+2,0	-1,0	+3,8	+21,6	-2,8	+0,8	+2,9	-19,6	+14,2	-18,6
1984/3	+2,0	-3,2	+3,7	+13,8	-1,2	-0,5	-	-2,6	-	-17,8
Share in total										
1982	100	12,1	0,2	18,9	68,8	35,0	8,6	16,0	7,2	2,0
1983	100	11,8	0,2	22,5	65,5	34,6	8,7	12,6	8,0	1,6
1984	100	11,2	0,2	25,1	63,5	33,7	8,6	12,1	7,8	1,3

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