COMMISSION OF THE EUROPEAN COMMUNITIES

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ENERGY SITUATION IN THE COMMUNITY AND IN THE WORDL

(Communication from the Commission to the Council)

ENERGY SITUATION IN THE COMMUNITY AND IN THE WORLD

World background

1. The apparent glut in world oil supplies and the slackness of the oil market reported last year have come to an abrupt and generally unforeseen end. Events in Iran and their actual, and possible future, effects on Middle Eastern oil production and exports have dominated the energy scene in the last six months. Future developments in Iran remain unclear, and although the new Government wants oil exports to be resumed, there cannot yet be any certainty about either the timing or the quantities involved (*).

2. The Iranian situation has thrown into relief the rôle of Saudi Arabia as the swing producer. The ability of Saudi Arabia and some other Gulf states to increase production has diminished, by some 3 m b/d, the impact of the Iranian export shortfall of up to 6 m b/d. However, there must be doubts about their willingness and ability to produce at these increased levels for a prolonged period.

3. In the meantime, the very small quantities of crude oil and products traded on the spot market have received sharply increased prices, which, although unrepresentative, have been well publicised. Although most oil continues to be sold at standard prices there is mounting pressure within OPEC to adjust to the new situation by an upwards revision of the phased price increases announced last December. In respect of "incremental" production, Saudi Arabia has already advanced the application of the forth quarter's price rise and some Gulf producers have increased prices by 7% beyond the planned level for all their light crude production. Others may follow. OPEC can be expected to try to coordinate within a coherent strategy these ad hoc moves by individual members, at its meeting planned for 26 March. A further general price rise now would diminish the prospects for world economic recovery.

(*) In 1978 Iran supplied about 10% of world oil consumption (outside the Communist countries) and about 16% of Community supplies.

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4. The immediate danger is that high oil stock draw down in consuming countries might have serious implications for next winter's supply situation unless the world production pattern is restored to enable restocking to take place this summer.

5. But beyond that, the politically unsettling effect of Iranian events on other parts of the Middle East calls for the utmost prudence in the examination and formulation of future oil and energy supply strategies. In any event, on the basis of "normal" Iranian production, it remains probable that in 1990 OPEC production could be well short of expected world requirements, New oil in non-OPEC countries will not change this general picture.

6. For example, it is unlikely that China can make a major contribution to new world oil supplies in the shorter term, and the USSR may have difficulty in opening up its undoubted resources quickly enough to maintain the Comecon oil supply balance. Even the substantial new supplies from Mexico and other parts of the American continent are unlikely to be large enough to have a major impact.

7. In spite of a decline in economic growth in the OECD area from its 1977 levels, oil consumption in the Community, the USA and Japan (85% of the OECD total) increased by 1.7% in 1978, mainly in gasoline and heating oil. Oil consumption in the three areas is expected to grow by about 2% in 1979, but the requirement for OPEC imports will not increase overall, owing mainly to North Sea oil production. Oil production in the USA, having increased slightly in 1978, will probably almost stabilize in 1979. Between now and 1990, the USA's oil imports could almost double, while Japan's could increase by 40%.

8. Although it is too early to judge the effect of the recent energy legislation in the USA, the measures are designed to save 3 m b/d in oil imports by 1985. However, increased consumption in 1979 is expected to outweigh slightly increased domestic production, leading to renewed growth in oil imports. This could have a serious effect on the US economy and on the world oil market unless there is a change through further and more rigorous legislation on conservation and oil prices. Fluctuations of the US dollar in 1978 caused uncertainty in world trade and renewed concern amongst oil producers about the international purchasing power of their oil revenues.

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9. Oil prospects remain of prime concern because oil is still the world's balancing fuel, and because the prospects for a rapid and massive switch to other sources are not good. In the USA, there are difficulties over the very ambitious coal programme, and world trade in coal will remain relatively small. In Western Europe, nuclear programmes have encountered further delays against a background of continuing public disquiet.

World background: Conclusions

10. Political instability and tension have increased in key areas of the world. Energy supplies have as a result become less secure, and in future could be increasingly affected by political factors. The difficulties we are experiencing now, even if they are only temporary, are typical of many which we may be facing in the coming years, and foreshadow the features of the energy situation which has previously been forecast for the mid or late 1980s.

Community situation *

11. Energy consumption regained the 1973 level for the first time last year, growing by 2.3%, having slightly declined in 1977. This was associated with economic growth of 2.8%, giving an energy/growth ratio of +0.82, compared with the negative ratio of 1977. Economic growth this year is forecast to be 3.4%, with energy consumption growing at 2.9%. On this basis, the energy/GDP ratio would be 0.85. Although it may seem that we are close to achieving the target ratio of 0.8 for 1985, it is premature to draw firm conclusions from a figure for any particular year. A clear trend has yet to be established but the need for strong energy saving policies remains vital.

12. Oil consumption increased at about the same rate as total energy consumption in 1978 and should increase by a further 2% during 1979. This was and will be more than covered by increased domestic production; net imports will continue their downward path in 1979, but will still account for 82% of supplies, compared with 96% in 1976. Natural gas production declined in 1978 but is expected to increase slightly in 1979. Total gas consumption will increase by 7% in 1979. Imports will account for most of this increase, and will take a growing share in the years to come.

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* Annexed is a more detailed document describing the energy situation in the Community in 1978 and the prospects for 1979.

13. Coal consumption showed a modest increase in 1978, mainly in the electricity sector, but 80% of power station coal is consumed in only two Member States. The markets in the iron and steel and general industrial sectors continue to be slack. Community coal production stagnated in 1978 at 174 m toe. The decline in the US dollar further added to the competitive advantage of third country imports, although the quantity imported did not change greatly. Excessive coal stocks in the UK and Germany continue to be a financial burden. The danger remains that, through under-investment, the Community's ability not only to produce but more important to consume coal will continue to be inadequate. Little change is expected on the 1978 picture in 1979.

14. Electricity consumption increased by 4.2% in 1978 compared with 3.2% in 1977; an even higher increase is expected in 1979. It is vital that future increases in electricity demand be met by primary input other than oil. Nevertheless, 22 GWe of oil-fired capacity are still under construction, compared with 7 GWe of coal. Delays continue to occur in the nuclear programme, and capacity in 1985 is now expected to be only 75-80 GWe. In 1979, about 10% of electricity production will be nuclear.

15. Imported oil in 1978 accounted for 50% of total Community energy consumption, about the same share as in 1977, and is forecast at 47% for 1979, 40% for 1985 and 38% for 1990. Total energy import dependence of the Community fell from 56% in 1977 to 55% in 1978 and is forecast at about 53% for 1979, and at 48-53% for 1985 and for 1990. These figures show that there remains an unacceptably high degree of exposure to external events, in spite of the progress made since 1973, at a time of increasing uncertainty about world energy supplies.

Policy implications for the Community

16. The above description of the world and Community situation shows that whereas there is no immediate crisis, the need to implement emergency oil measures cannot be excluded, and that we must as a community be ready for this in an efficient and responsible way. This will call for maximum cooperation between the Commission, national governments, the oil companies and international organizations.

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17. Short of an oil emergency, we are still in a situation where the Community could lose 6 % of its total supply over the first half of 1979, and find itself in a bad position on oil stocks. Hence the need to limit oil consumption immediately, as agreed at the recent meeting of the European Council, as a means of reducing our dependance on imports.

18. The European Council conclusions reaffirm earlier Commission assessments of the Community's longer term energy prospects and policy priorities. Depending on events in the Middle East in the coming months, it may be that the time-scale for managing the energy transition has been considerably shortened. Our existing priorities of energy saving, reduction of oil consumption, through greater use of coal and nuclear, reduction of import dependence, improved security of supply by establishment of improved relations with producing countries and increased domestic energy production, are therefore even more relevant and urgent.

Conclusions

19. The Commission invites the Council, in the light of the conclusions of the recent meeting of the European Council and against the background of the analysis of the world and Community energy situation given in this paper :

(i) to arrange for the implementation of specific actions to achieve the targets of limiting oil consumption in 1979 to 500 m. tonnes and of limiting 1985 oil imports to their 1978 level;

(ii) to consider urgently other measures necessary for the achievement of medium and longer term Community energy policy objectives such as already proposed by the Commission.+)

(iii) to review the development and implementation of effective and convergent energy policies within the Community;

(iv) on the basis of proposals to be made by the Commission, to consider new Community objectives for 1990 with a view to their early adoption;

(v) to discuss the means by which the Community can best improve its energy relations with producer and other third countries.

+) see document COM(79) 118 final.

THE ENERGY SITUATION IN THE COMMUNITY (*)
SITUATION 1978 - OUTLOOK 1979

ENERGY DEMAND

In 1978 the estimated inland demand for energy reached 937 million tons of oil equivalent (m toe), slightly exceeding the 1973 level of consumption and representing a growth of 2.3% on 1977. This increase in demand, which contrasted with the virtual stagnation of the previous year, was a reflection of the somewhat higher rate of economic growth, the increase in GDP in 1978 being estimated at 2.8%. The GDP/energy growth relationship was significantly different from that of 1977 (GDP +2.3% / energy -0.08%), but broadly in line with the objective established for the year 1985 for the Community (1.0 : 0.8).

The economic outlook for 1979 indicates a higher rate of growth estimated at 3.4%. The forecast rate of growth in inland energy consumption is of the order of 2.9%. This implies a GDP/energy growth relationship fairly similar to that of last year. The demand for oil is expected to grow by about 2.0%, or the same rate as in 1978, and that of natural gas to rise by about 7%. However, some diminution in the rate of growth of coal (+1.7%) is envisaged. Net electricity consumption is expected to rise by about 4-5% (Appendix 1).

OIL

Consumption in the EEC, USA and Japan (which account for 85% of OECD demand) as a whole is estimated to have risen in 1978 by about 1.7%. In all three regions the increase occurred mainly in motor gasoline and heating gasoil, while demand for residual fuel changed little. Official and company forecasts for 1979 suggest a further growth in total consumption of the order of 2%. However, the OECD's requirement for OPEC oil is expected to change little over the years 1977-79 because of increased production outside OPEC, mostly in the North Sea (Appendix 2).

Crude oil supplies remained generally adequate throughout the year 1978, but in April Saudi Arabia placed new restrictions upon the export of Arabian Light crude, limiting it to 65% of total 1978 exports. The consequent reduction in light crude availability led to a rise in the prices of gasoline and the other lighter products in the second half-year.

(*) Report as at 15 February 1979

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The supply prospects for 1979 became very uncertain when Iranian exports ceased at the end of 1978. Although the replacement of 5 million barrels per day of Iranian exports is within the "technical" capacity of other OPEC states, its loss was not fully made good in the early part of 1979, and there will remain a shortfall of about 2 m b/d (100 m t/y), or 5% of OECD consumption, assuming Saudi Arabia limits production to 9.5 m b/d and others continue to produce at end 1978 levels. A run down of stocks of about 10 million tons per month, therefore, seems likely so long as Iranian exports are withheld, but this figure is to be compared with OECD stocks of crude oil and finished products of the order of 400 million tons at the end of 1978.

Although no early deficiency in overall supply is expected, the consequences for certain companies, and for their customers, were already serious by early 1979, and their efforts to obtain additional supplies on the spot and auction markets pushed prices to levels well above official state selling prices.

The official selling price of the reference crude (Arabian Light 34° API) remained unchanged throughout 1978. In December OPEC announced quarterly increases for 1979, starting with 5% in January, reaching a cumulative 14.5% by October and averaging 10% for the year. Higher first quarter increases were applied to light low sulphur crudes whose contract prices in many cases rose by over 10%. In February Saudi Arabia decided to apply the prices agreed by OPEC for October 1979 to those additional quantities produced to replace lost Iranian production, bringing the average price increase to 6.5% so far this year.

The average cost of crude oil imported by the Community during 1978 changed very little (Appendix 3). F.o.b. dollar prices for crude oil were in fact virtually unchanged over the period January/September, while oil prices expressed in national currencies fell on average by about 10% as a result of the decline in the value of the dollar. Official and companies' scheduled selling prices for petroleum products in the Member States likewise moved little in 1978, although there were some increases for gasoline and reductions for high sulphur fuel oil in the second half. In 1979 the Community's supply costs must be expected to rise rather more than the 10% average increase announced by OPEC because of the larger increase in prices of the light low sulphur crude and the elimination of discounts.

A similar trend is foreseen for domestic product selling prices in the EEC, while importers and consumers whose purchase prices are linked to the Rotterdam spot market will face much higher increases.

Gross consumption of oil in the Community is estimated to have reached about 535 million tons in 1978, representing an increase of about 2% on 1977. This increase resulted from higher demand for distillates (motor gasoline +5.5%, gasoils +6%), while consumption of residual fuel oil was little changed. Demand trends were not uniform in the various member countries, increases of 4-5% in France, Germany and the United Kingdom contrasting with reduced or unchanged consumption in Denmark, the Netherlands and Italy. A similar increase in demand is generally expected in 1979.

The increase in consumption in 1978 was more than covered by higher indigenous production of crude oil which rose from nearly 49 million tons in 1977 to an estimated 63 million tons in 1978, representing 12% of total EEC supply. Import requirements of crude and products were consequently slightly lower at about 472 million tons. Gross consumption in 1979 is estimated to reach about 545 million tons and, with domestic production expected to rise to 95 million tons, the import requirement should be further reduced to 450 million tons (22% below 1973). The total cost of Community net import requirements in 1979 is tentatively estimated at over US $52 bn. compared with $48 bn. in 1978.

NATURAL GAS

The year 1978 has seen a continuation in the growth of the importance of gas in meeting the Community's energy needs. The share held by natural gas of total primary energy consumption within the Community is estimated to have increased from 16.7% in 1976 to 17.1% in 1977 and 17.5% in 1978. As Community production of gas has slowed down, this rapid increase is being met from imports.

In fact a fall of almost 5% was recorded for total gas production within the Community in 1978 at 135 m toe. This was partly due to a fall in production of almost 9% by the Netherlands, the main producer in the Community, reflecting a policy of more selective utilization of the country's natural gas resources. There was also a 4% fall in gas production by the UK, whilst German production

increased by almost 10%. For the first time, Ireland reported production of small quantities of natural gas, which although forecast to grow rapidly, will still remain relatively small compared to other Member States' production.

Against this fall in Community production there was approximately a 5% increase in total consumption of gas to about 164 m toe. This was despite a fall in consumption by the Netherlands, although all other Member States increased their consumption. The increase recorded for the Federal Republic of Germany was about 10%, for France 7% and for the UK about 3%.

The disparity between growing consumption and a fall in production was made up by a jump of 74% in the quantity of gas imported from third countries. In particular there was a massive increase in the gas imported from Norway and this trend will continue so that the quantities supplied in 1980 will be double the 1978 level. The USSR also increased the quantities supplied during 1978, and there was a relatively small increase in the supplies of gas from Algeria. The other third country supplier, Libya, has maintained supplies (to Italy) at about the same level as 1977.

The use of gas in power stations fell by 5%; however, the forecast for 1979 is for an increase of almost 4% over 1978. Only the UK is forecast to decrease its use of gas for electricity generation this coming year, whilst increases are forecast for the Federal Republic of Germany, the Netherlands, Belgium and Ireland.

Looking to the future, production is forecast to increase in 1979 by about 2% and imports by about 30%. These sources will be used to meet a forecast increase in demand of about 7%. This increase is forecast to result from a fairly large increase in the industrial sector and a more moderate increase of 5% in the domestic and commercial sectors.

COAL

Total coal consumption in the Community in 1978 at about 290 m tonnes (177.1 m toe) showed a modest increase over that of the previous year. Electricity producers who, for the first time, emerged as the biggest consumers of coal in the Community in 1976, have continued to increase their lead over the next largest market, the steel industry.

Provisional figures show electricity coal-burn to have been of the order of 159 m tonnes in 1978 compared to slightly under 151 m tonnes the previous year. This growth should be seen in the context of the above-average availability of hydro-electricity, at least during the first part of the year, and a number of nuclear power stations coming into operation. However, this further rise has done little to narrow the enormous differences in coal consumption for electricity generation between different Member States: about 80% of all hard coal for electricity generation was used in the UK and Germany, or an even higher percentage if brown coal is taken into account.

The markets for coal and coke for steel production at about 72 m tonnes (coke being reckoned as coal by a factor of 1.3) and in foundries and general industry, have been stagnant in 1978 with no more than faint indications of an upturn. On the other hand, the market for domestic solid fuels has continued its contraction, though at a slightly slower rate than in recent years, probably due to prolonged cold weather.

Coal production in the Community in 1978 of about 238 m tonnes (147 m toe) represents a marginal fall from the previous year. However, production could have been substantially higher if market conditions had not obliged the German coal industry to hold back output at well below capacity.

Like the picture for production and consumption, that for coal imports from outside the Community in 1978 at about 45 m tonnes (31.8 m toe) is similar to that in 1977. Of these, about 24 m tonnes went to power stations and 18 m tonnes were coking coal.

There was little change in world market coal prices in 1978 in terms of US dollars, implying a fall in prices in most Community currencies. This situation, combined with rising costs, has put the Community's coal industry under increasingly severe financial pressure, resulting in mounting losses and needs for subsidies.

German coal producers continue to hold large stocks of coal of varying qualities and of coke, though these are slightly smaller than in 1977. In the UK, stocks of coal suitable for electricity generation and general industry have risen to substantial levels. Elsewhere in the Community, producers' stocks do not exceed working requirements.

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No important changes to coal consumption can be expected for 1979. Existing coal-fired power stations are already being used at close to their full economic potential but some new coal-fired plant due to come into operation is expected to lead to a slight increase in the Community's total coal-burn. Demand for the steel industry is unlikely to rise above that of last year, while further significant expansion of the market for coal in general industry must await further technical developments.

Likewise, there are no grounds to expect any substantial changes in 1979 either in the Community's own coal production or in imports from third countries.

ELECTRICITY

(i) Electricity consumption

In 1978 net consumption of electricity (at 1127.7 Twh) in the Community increased by 4.2%. At national level, the more significant increases in consumption were in Denmark (6.8%), France (6.6%) and Ireland (6.9%), whose economy was the fastest growing in the Community. The lowest rates of increase were in Luxembourg and the UK (Appendix 5).

In 1979 electricity consumption is forecast to increase further by between 4-5%; the position will be in part affected by the particularly severe winter weather at the start of the year.

(ii) Conventional power stations

Conventional thermal power stations (i.e. those fuelled principally by coal, oil or natural gas) continued in 1978 to supply about three-quarters of total net production by Community power stations and this should remain the position in 1979. Production from these stations was over 6% higher than in 1977 and entailed further increases to coal and oil burning, but use of natural gas in power stations is estimated to have decreased for the second consecutive year.

Hydrological conditions were not as favourable in 1978 for production of hydro-electricity as in the earlier record year of 1977 and hydro-generation accordingly fell by about 8% to 141 Twh (Appendix 5).

(iii) Nuclear energy

The nuclear units which had been expected to come into operation in 1978 did so in keeping with the planned datelines, with the exception of Philippsburg 1 (Federal Republic of Germany). The fuel loading for this unit of 864 MWe, which had been blocked for two years, was finally approved and this unit should enter into operation early in 1979.

The addition of nearly 4000 MWe to the installed nuclear capacity of the Community has raised total nuclear capacity to 26,300 MWe at end 1978 and the corresponding production is estimated at some 115 TWh or 10% of total net electricity production.

Apart from Philippsburg 1, only two or three additional French units are expected to be linked to the grid in 1979, and installed nuclear capacity within the Community should reach between 29,000 and 30,000 MWe.

NUCLEAR FUELS

In the natural uranium field, the market was somewhat more lively in 1978 than in 1977 despite construction delays of power plants in the majority of Member States. The needs of reactors in operation or which are likely to enter into operation in the near future are covered by existing contracts.

In brief, the year 1978 may be described as one in which supplies continued to be received from the traditional suppliers, and in which the market awaited the prospects of production in Australia to be realized.

With regard to the outlook, conditions of stable supply seem likely and major difficulties in respect of natural uranium or enriched uranium cannot be foreseen, although price uncertainty is probable, particularly because of the increasing intervention of public authorities in the commercial field.

Table 1

Inland Consumption of Primary Energy in the Community

	1976		1977		1978 Estimates		1979 Forecasts	
	M toe	%	M toe	%	M toe	%	M toe	%
Hard coal	178.6	19.5	172.9	18.9	177.1	18.9	180.3	18.7
Lignite	29.2	3.2	26.8	2.9	26.8	2.9	27.0	2.8
Oil	507.4	55.3	493.9	53.9	505.5	53.9	515.0	53.4
Natural gas	153.3	16.7	157.3	17.1	164.3	17.5	175.4	18.2
Nuclear energy	21.8	2.4	26.3	2.9	28.7	3.1	35.1	3.6
Hydro, geothermal and others	26.7	2.9	39.1	4.3	34.9	3.7	32.0	3.3
TOTAL	917.0	100.0	916.3	100.0	937.3	100.0	964.8	100.0

Table 2

Percentage Variation in GDP and Energy Consumption

	1977-1976	1978-1977 Estimates	1979-1978 Forecasts
Gross Domestic Product	+ 2.3	+ 2.8	+ 3.4
Energy inland consumption	- 0.08	+ 2.3	+ 2.9
of which:			
- Oil	- 2.7	+ 2.3	+ 1.9
- Solid fuels	- 3.9	+ 2.1	+ 1.7
- Natural gas	+ 2.6	+ 4.5	+ 6.8
- Nuclear energy	+ 20.6	+ 9.1	+ 22.3
- Hydro, geothermal and others	+ 46.4	- 10.7	- 8.3

Table 3

Energy Supply in the Community

(M toe)

	1976		1977		1978		1979	
	Production	Net imports*	Production	Net imports*	Production	Net imports*	Production	Net imports*
- Solid fuels	186.8	28.4	174.3	27.7	173.5	26.3	174.7	31.6
- Oil	21.8	520.1	48.6	480.3	63.0	472.0	95.0	450.0
- Natural gas	142.2	11.6	142.2	16.9	135.2	30.6	137.9	38.6
- Primary electricity, etc.	47.4	1.1	61.5	3.8	60.3	3.3	64.4	2.7
TOTAL	398.2	561.2	426.6	528.7	432.0	532.2	472.0	522.9

* Imports minus exports.

Source: 1976, 1977 and partly 1978: SOEC; other 1978 and 1979: DG XVII (EEC).

Table 4

EEC: Oil consumption, production and import requirements

(millions of tonnes)

	1977	77/78	1978 estimates	78/79	1979
Consumption					
Inland *	493.9	+ 2.3%	505.5	+ 1.9%	515.0
Bunkers	30.6		29.5		30.0
Total	524.5	+ 2.0%	535.0	+ 1.9%	545.0
Production	48.6		63.0		95.0
Net imports	475.9 **	- 0.8%	472.0	- 4.7%	450.0

* Including refiners' own consumption and losses

** Including stock variation

Appendix 2

EEC, USA AND JAPAN: OIL IMPORT REQUIREMENTS 1977-79

(Millions of tonnes)

	1977	1977/78 % ±	1978 (est.)	1978/79 % ±	1979
Consumption[1]					
EEC	525	+ 2.0	535	+ 2.0	545
USA	890	+ 1.5	905	+ 2.0	922
Japan	278	+ 1.0	281	+ 3.2	290
	1,693	+ 1.7	1,721	+ 2.1	1,757
Production					
EEC	49	+ 29.0	63	+ 51.0	95
USA	490	+ 2.5	503	-	505
Japan	1	-	1	-	1
	540	+ 5.0	567	+ 6.0	601
Import requirements[2]					
EEC	476	- 0.8	472	- 4.7	450
USA	400	-	402	+ 3.7	417
Japan	277	+ 1.1	280	+ 3.2	289
	1,153	-	1,154	-	1,156

[1] Including bunkers and refinery own use and losses

[2] Excluding imports for strategic reserve and other stock changes

Sources: EEC: Eurostat and Commission estimates
USA: Chase Manhattan, Independent Petroleum Association
Japan: OECD and Government 5-year plan

Table 1 Appendix 3

ROTTERDAM: Monthly average fob barge prices Dec. 1977 to Feb. 1979 ($/tonne)

	Dec. 1977	June 1978	Dec. 1978	Jan. 1979	mid-Feb. 1979
Motor Gasoline					
Premium	138	154	214	219	320
Regular	130	141	201	209	310
Naphtha	122	131	180	199	289
Jet Kero	130	132	187	207	323
Gasoil	120	121	152	194	326
Fuel Oil					
Max. 1% S	87	84	97	112	137
Max. 3% S	80	73	80	84	107
Average (Arab Light Yield)	101	102	130	147	220

Movements in spot prices of some crude oils 1978/79 ($/tonne)

	1978					1979	
	State selling price	Estimated spot values				State selling price 1 Jan.	Spot Value mid-Feb.
		1st Quart	2nd Quart	3rd Quart	Nov.		
Arabian Heavy 27° API	84.9	84.4	83.8	83.2	85.2	88.3	140
Arabian Light 34° API	93.6	93.3	93.6	94.3	97.3	98.3	160
Libyan Zuetina 41° API	106.5	105.7	105.5	106.1	113.4	113.0	180

Sources: Platts Oilgram, Petroleum Intelligence Weekly

Appendix 3 (cont.)

Table 2

Average fob and cif prices of crude oil imported into Member States ($/tonne)

		B	D	DK.	F	IRL	I	NL	UK	EEC
F.o.b. cost										
1977	Q 3	92.37	91.84	97.20	92.79	91.59	92.21	95.40	92.30	94.01
	Q 4	93.92	94.11	98.98	94.26	93.06	93.10	95.48	92.82	94.90
1978	Q 1	94.06	94.69	98.16	93.53	92.76	92.35	96.58	91.78	94.45
	Q 2	93.26	93.38	97.13	93.31	93.20	92.88	94.30	92.67	94.23
	Q 3	92.74	94.55	97.05	93.16	92.40	92.88	94.74	92.97	94.16
	Q 4									
C.i.f. cost										
1977	Q 3	100.67	101.06	103,57	102.64	101.49	98.08	102.09	102.15	101.77
	Q 4	101.99	101.79	104.60	104.11	103.10	98.37	102.46	101.78	102.36
1978	Q 1	101.99	99.38	104.01	103.81	102.88	97.85	102.53	101.41	101.84
	Q 2	101.70	101.50	102.31	104.18	102.88	97.63	101.94	101.19	101.54
	Q 3	100.55	100.92	102.53	104.69	102.15	97.56	101.43	101.19	101.54
	Q 4									

Index of cif crude oil costs in national currencies

(1977 Q 1 = 100)

1977	Q 3	103.65	103.78	99.04	101.92	100.87	102.64	101.41	101.62	101.45
	Q 4	102.33	104.56	96.56	102.20	97.63	102.48	99.47	96.86	99.98
1978	Q 1	94.92	95.85	89.57	100.23	94.88	100.01	92.76	90.81	95.18
	Q 2	95.47	97.21	88.11	97.25	91.81	99.84	91.87	95.14	94.81
	Q 3	92.82	94.36	85.33	93.22	91.28	96.97	89.36	90.42	91.33
	Q 4									

Source : Information received under Council Directive 76/491/EEC of 4/5/1976.

Summary of coal supply situation in the community

(t = t) Mio t	Production	Imports	Exports	Stock variation	Inland consumption
			1977		
Coal	240.4	46.0	1.8	+ 2.5*	287.1
Coke	69.2	0.6	4.5	- 2.7	62.6
Lignite and peat	132.0	1.6	0.2	+ 0.6	134.0
TOTAL Solid fuels M toe	174.3	32.3	4.6	- 2.3	199.7
			1978		
Coal	238.1	45.3	3.5	+10.1*	290.0
Coke	64.4	0.5	6.0	+ 2.8	61.7
Lignite and peat	132.7	1.5	0.2	-	134.0
TOTAL Solid fuels M toe	173.5	33.1	6.8	+ 4.1	203.9
			1979		
Coal	237.4	50.8	2.3	+ 9.1*	295.0
Coke	67.2	0.5	4.7	+ 1.5	64.5
Lignite and peat	134.0	1.0	0.2	-	134.8
TOTAL Solid fuels M toe	174.7	36.6	5.0	+ 1.0	207.3

* Including statistical variation, products from recuperation and production of small mines.

Source: 1977, SOEC; 1978 and 1979: DG XVII/B/3.

Net Consumption of Electricity (including losses)

(thousand millions of kWh)

YEAR	EUR-9	D	F	I	NL	B	L	UK	IRL	DK
1976	1,047.8	312.4	196.4	154.7	55.4	41.3	3.4	256.0	7.7	20.4
1977	1,081.7	319.6	206.8	160.1	56.5	43.1	3.4	262.2	8.3	21.7
1978	1,127.7	333.0	220.5	166.7	59.2	45.2	3.5	267.5	8.9	23.2
Increase:										
1977/76	+ 3.2%	+ 2.3%	+ 5.3%	+ 3.5%	+ 2.0%	+ 4.3%	+ 0.1%	+ 2.4%	+ 8.1%	+ 6.4%
1978/77	+ 4.2%	+ 4.2%	+ 6.6%	+ 4.1%	+ 4.7%	+ 4.9%	+ 2.5%	+ 2.0%	+ 6.9%	+ 6.8%

Total Net Production of Electricity

EUR-9	Total	Breakdown by energy sources			
		Hydro	Geothermal	Nuclear	Conventional thermal
Year 1977	1,073.0	152.9	2.4	103.8	813.9
Year 1978	1,122.7	140.8	2.4	115.1	864.4
Increase: 1978/77	+ 4.6%	- 7.9%	+ 0.2%	+10.9%	+ 6.2%
Breakdown of total:					
1977	100%	14.2%	0.2%	9.7%	75.8%
1978	100%	12.5%	0.2%	10.3%	77.0%

Source: Eurostat