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Summary of the Report on

THE ENERGY SITUATION IN THE COMMUNITY

Position 1969 - Prospects 1970

This summary provides an outline of the main features of the report on "The Energy Situation in the Community - Position 1969 - Prospects 1970", which has been adopted by the Commission.

The report, which is one in the series of annual surveys of the energy market situation, prepared by the Interexecutive Group on Energy up to 1967 and since then by the Commission of the European Communities, will be published as a whole with its appendices towards the middle of 1970.

After describing the economic factors, which have a determining influence on the energy pattern, the report goes on to review the energy requirements in the various consumer sectors and the terms of supply, and finally sets out the conclusions to be drawn from this review. Only these three aspects will be summarized here. The report contains, in addition, a short description of recent developments in the energy situation in some major industrialized countries, together with a number of appended tables detailing the energy balance sheets for the Community and the member countries for 1968 and 1969, with the forecasts for 1970.

I. Factors determining the energy pattern

The expansion of economic activity, which had been fairly lively in 1968, accelerated considerably in 1969 in the Community, as can be seen from Table 1 below.

This scene formed part of a worldwide picture of boom conditions, which in several countries took the form of full employment of production capacity and powerful inflationary tendencies.

Table 1: Factors determining the trend of energy demand in the Community

	1968	1969 (estimated)	1970 (forecast)
- GNP by volume (% p.a.)	+ 5.8	+ 7.4	+ 4.6
- Industrial production (% p.a.)	+ 8.7	+12.5	+ 8.0
- Steel production (million ton)	98.6	107.8	111.4

The exceptionally high activity of the steel industry deserves comment, because this sector is a major energy consumer. It enjoyed particularly favourable growth conditions, stimulated by the vigorous economic climate both in the member countries and in the principal non-member countries. The output of ingot steel rose by 9%, thus passing the 100 million tonne mark (roughly 108 million t in 1969, as against 98.6 million in 1968). The Japanese steel industry was also very active, a fact which affected the world market in coking coals.

In 1970, the growth of economic activity can be expected to slow down to some extent, though this will only happen very gradually. During the greater part of the year output will be hampered by the insufficiency of production capacity and by the shortage of labour which is keenly felt in certain countries. Because of this it will only be able to increase at the rate of progress of productivity, which may be slower than in 1969. Towards the end of 1970, in a growing number of sectors, expansion may slacken off, owing to the decreasing dynamism of the world economic situation and more highly differentiated trends in internal demand. For the Community as a whole, the GNP is expected to grow by 4.6% and industrial production to increase by 8%.

II. Energy market situation in 1969

A year of exceptionally high economic activity, 1969 featured a growth of energy consumption which, at 7.6%, exceeded the average for recent years, although the chief aspects of the supply and demand pattern did not differ from

the forecasts in any major respect.

Internal consumption rose, according to present estimates, to 722 million tonnes hce, and total requirements (comprising, in addition to internal consumption, the quantities destined for bunkers, exports and non-energy uses) to 907 million tonnes hce. These total requirements were covered as to 62% by oil, 23% by hard coal and 6% by natural gas, the remainder being shared by primary electricity and lignite.

The coal demand remained at roughly the same level as in the previous year, in contrast to this fuel's general tendency to regression. The internal demand for coke, owing to the exceptional expansion of activity in the steel industry, exceeded the 1968 level by 1.7 million tonnes. At the same time the consumption of hard coal by thermal power plants increased by 1.8 million tonnes hce. As coal production had fallen off, large amounts were drawn from stock to meet demand.

The strains on coking coal supplies, observable throughout the world, took on a special aspect in the Community, owing to the employment of certain quantities of coking coal as fuel, chiefly in electric power plants. In Germany, the amendments to the laws favouring the consumption of hard coal in such power plants and the provisions for enlarging the import quota for coals from non-member countries will tend to remedy this situation to some extent.

In all the coalfields prices rose fairly steeply as a result of higher production costs. The insufficiency of supply to meet a strong demand also helped to raise the prices of coke and coking coal.

The currency adjustments that took place in France and Germany perceptibly altered the price ratios between the coals produced in the different member countries.

The oil supply was abundant and sufficed to meet the demand, which still shows a high growth rate. Notable among the requirements is the mounting consumption for non-energy purposes (+14.2%).

In the course of the year the prices for petroleum products gradually dropped back to their pre-Suez level. In Germany, revaluation raised diesel oil prices (expressed in u.a.), but this increase subsequently tailed off. In Belgium and Holland prices dropped, largely because of competition from natural gas. Some firming-up occurred at the end of the year as a result of seasonal demand and the increase in freight charges, which had been under considerable strain since the closing of the Suez canal.

Natural gas is growing more and more important in the energy supply system, and already covers nearly 25% of internal consumption in the Netherlands. Dutch production increased by half in 1969 and the rapid penetration of this form of energy is reflected in the slackening growth in the consumption of liquid fuels in the Netherlands, Belgium and certain parts of Germany.

The demand for electricity enjoyed a higher growth rate than did energy consumption as a whole. The increase in household consumption was particularly noticeable and industrial consumption also made considerable headway.

Although nuclear energy's share in meeting requirements is still modest, the nuclear power plant capacity is expanding. Thus in Germany, nuclear power plants represent the major proportion of the orders for plant to come into service in 1974-1975.

As regards the supply of natural uranium, the short-term situation can be regarded as satisfactory for Community users. During 1969 the quantity of reasonably certain reserves in French territory rose significantly, whilst those controlled by French firms in Africa reached a volume similar to that of the home reserves. In addition, German and Italian firms have broadened their prospecting activities in a number of countries outside the Community.

III. Outlook for 1970

The economic outlook for 1970 is promising, although expansion must be expected to slow down somewhat. Energy consumption will continue growing at a high rate (+6%) but less sharply than in 1969, and will reach 766 million tonnes hce^(*). Total requirements will amount to 953 million tonnes hce (+5.1%).

The forecasts for 1970 point to no change in the main trends observed over the recent period, but certain difficulties of adjustment to the economic situation must be expected.

This applies more particularly to coking coal and coke. The technical and economic characteristics of the Community's coal industry are such that it cannot respond to a rapid rise in demand, especially as in the long term it is tending to shrink.

* This amount would be only 3% higher than the internal consumption level predicted, in 1966, by the "New Reflections on the Community's Long-Term Energy Prospects" (743 million tonnes hce). The coverage of this consumption by the various forms of energy should, broadly speaking, be in line with the trends outlined in "New Reflections". The shares contributed by coal and oil, however, will lie at the bottom and top levels respectively of the envisaged ranges.

Moreover, stocks of hard coal and coke are at a fairly low level. The stresses observed in 1969 are therefore likely to continue in 1970 unless the supply and marketing conditions can be improved, and particularly unless certain coals which have so far been used for fuelling purposes in electric power plants can be sent for coking. The fall in demand which might develop during the year would permit a return to more normal supply conditions. The present tension in the coking coal market also has repercussions on supply to the household sector, notably in Germany, where certain quantities of coke are used for heating. The use of other solid fuels, such as coal or lignite agglomerates - production of which tends to adjust itself to a temporary rise in demand - should enable these requirements to be met in the immediate future. In the longer term, however, we must expect to see coke ousted by other fuels in the household sector.

Lastly, it must not be forgotten that the question of coking coal supplies for the Community has to be viewed in the context of a growing worldwide demand. Even if, in the long term, supplies appear to be sufficient, it is to be feared that temporary shortages will still make themselves felt.

The problem of coking coal supply is not without influence on the supply of conventional power plant fuels, which is particularly sensitive to price differences between the energy sources. Within the limits of feasibility of substitution, and subject to certain measures taken by the public authorities, this sector's policy is based on the search for the cheapest input calorie. Mixed heating plants give certain producers room to manoeuvre which is, however, relatively limited in time. To the extent that certain quantities of coal hitherto used in the power plants are sent instead to the cokeries - one attraction being the higher selling prices - there may be certain difficulties in 1970 concerning the supply of coal for steam purposes, leading to a change in the proportions of the various forms of energy used in thermal power plants. The development of price ratios between coal on the one hand and its competitors, oil and natural gas, would encourage this trend.

Another factor to consider is that there have recently been exports of heavy fuel oil with a low sulphur content to North America, in response to an increase in demand due to the American requirements concerning atmospheric pollution. If this movement should gain ground to any extent, it might well impose an additional stress on the market in fuels for power plants in the Community.

Finally we should remember the existence and influence of certain structural factors on the energy balance-sheet, the first of which is imports from non-member countries. Although they cover an increasing fraction of the requirements, the Community is increasingly diversifying its external sources of hydrocarbon supplies, thus making deliveries more secure. Also, the growing use of supertankers tends to exert a stabilizing influence on the costs of crude oil transport and, to a certain extent, on the supply cost. Secondly, natural gas will penetrate the market more extensively and will have more and more effect on the sale of other energy forms. Over the longer haul, the conclusion of contracts for gas imports from non-member countries merits attention.

Table 2. Variations of Internal Consumption Per Sector - Community

	1968		Variations in %			
	Fuel 10 ⁶ tonnes hce	Electricity TWh	Fuel 69/68	Fuel 70/69	Electricity 69/68	Electricity 70/69
Industry (1) (2)	194.07	252.55	+ 8.1	+ 4.6	+ 7.6	+ 8.2
Steel industry	66.19	45.38	+ 7.6	+ 2.6	+ 6.6	+ 5.7
Others	127.89	207.17	+ 8.3	+ 5.7	+ 7.8	+ 8.7
Transport						
Rail	5.18	16.26	-20.9	- 8.1	+ 5.5	+ 3.6
Road	73.03	-	+ 7.1	+ 7.4	-	-
Other	9.57	-	+12.3	+10.4	-	-
Household sector	166.68	150.05	+ 8.3	+ 6.5	+12.1	+ 9.4
Miscellaneous	2.08	-	+ 2.3	+ 2.8	-	-
End consumers (2)	450.61	418.85	+ 7.7	+ 5.8	+ 9.1	+ 8.5
Primary producers	5.86		- 6.3	- 1.6		
Secondary producers	42.81		+ 8.3	+ 5.6		
Thermal power plants	126.31		+10.6	+ 8.2		
Losses in distribution	1.22		+15.6	+22.0		
Hydroelectric, geothermal and nuclear power plants + remainder foreign trade(3)	44.19		- 1.9	+ 3.7		
Total internal consumption	671.01		+ 7.6	+ 6.1		

(1) Excluding blast-furnace gas to avoid duplication

(2) Any differences due to rounding off of figures

(3) Electricity converted into tonnes hce on basis of the mean specific consumption

Table 3. Internal Consumption of Energy From Primary and Equivalent Sources - Community

	Volume in millions of tonnes hce			Percentage of total		
	1968	1969	1970	1968	1969	1970
Coal and equivalents	201.76	201.76	199.45	30.1	28.0	26.0
Lignite and equivalents	32.41	34.15	35.15	4.8	4.7	4.6
Crude oil and equivalents	354.62	392.13	425.45	52.8	54.3	55.6
Natural gas (2)	38.03	50.41	60.68	5.7	7.0	7.9
Electricity (2)	44.19	43.33	44.92	6.6	6.0	5.9
Total (1)	671.01	721.76	765.65	100	100	100

(1) The total may differ from the sum of the items owing to rounding off

(2) Including foreign trade balance

Table 4. Overall Energy Balance Sheet - Community

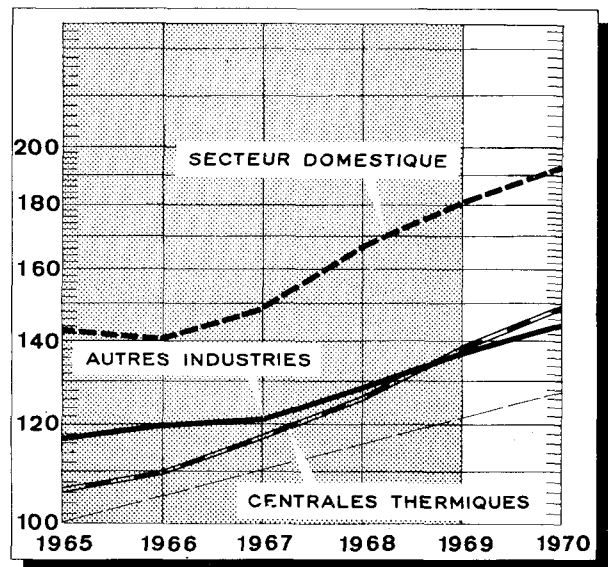
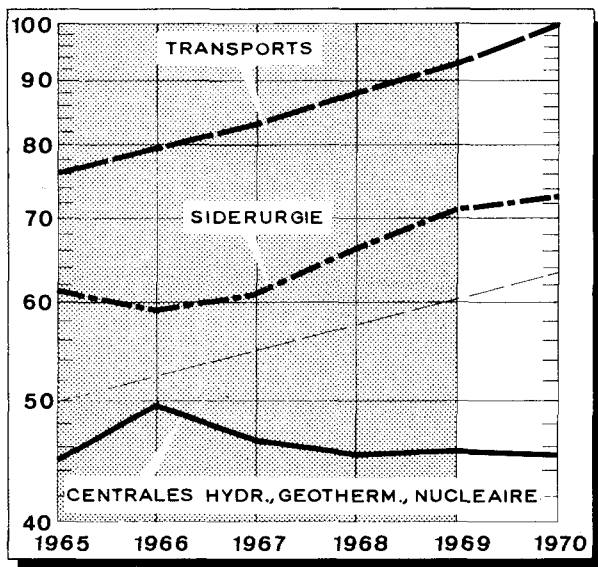
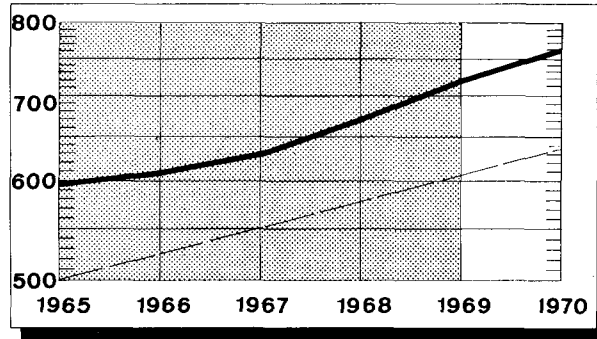
In millions of tonnes hce	A. Requirements			B. Coverage of Requirements			
	1968	1969	1970	1968	1969	1970	
1. Internal consumption	671.01	721.76	765.65	1. Internal resources	305.18	317.29	324.59
i.e., solid fuels	234.17	235.90	234.60	i.e. solid fuels	201.47	199.82	198.33
liquid fuels	354.62	392.13	425.45	liquid fuels	21.31	21.22	20.32
natural gas(1)	38.03	50.41	60.68	natural gas	42.07	55.68	64.86
primary electricity (1)	44.19	43.33	44.92	primary electricity	40.33	40.58	41.08
2. Exports	65.66	83.24	75.59	2. Imports	510.43	576.23	620.19
3. Disposals with the Community (for information)	(78.55)	(77.67)	(80.06)	i.e. solid fuels	24.29	27.15	31.10
4. Bunkers	32.46	36.89	38.90	liquid fuels	480.10	543.58	580.23
5. Non-energy products	45.45	51.93	59.22	gas	0.54	0.59	3.41
6. Stock variations (conversion + consumer)	+ 2.41	- 0.22	-	electricity	5.50	4.92	5.44
7. Gap due to phasing-out	+ 7.73	+12.96	+13.61	3. Procurements within the Community (for information)	(76.75)	(77.69)	(80.06)
8. Total requirements	824.71	906.56	952.97	4. Stock variations (producers and importers)	+ 9.10	+13.04	+ 8.19
				5. Coverage of requirements	824.71	906.56	952.97

(1) including foreign trade balance

Evolution de la consommation intérieure par secteurs

COMMUNAUTE (en 10⁶tec)

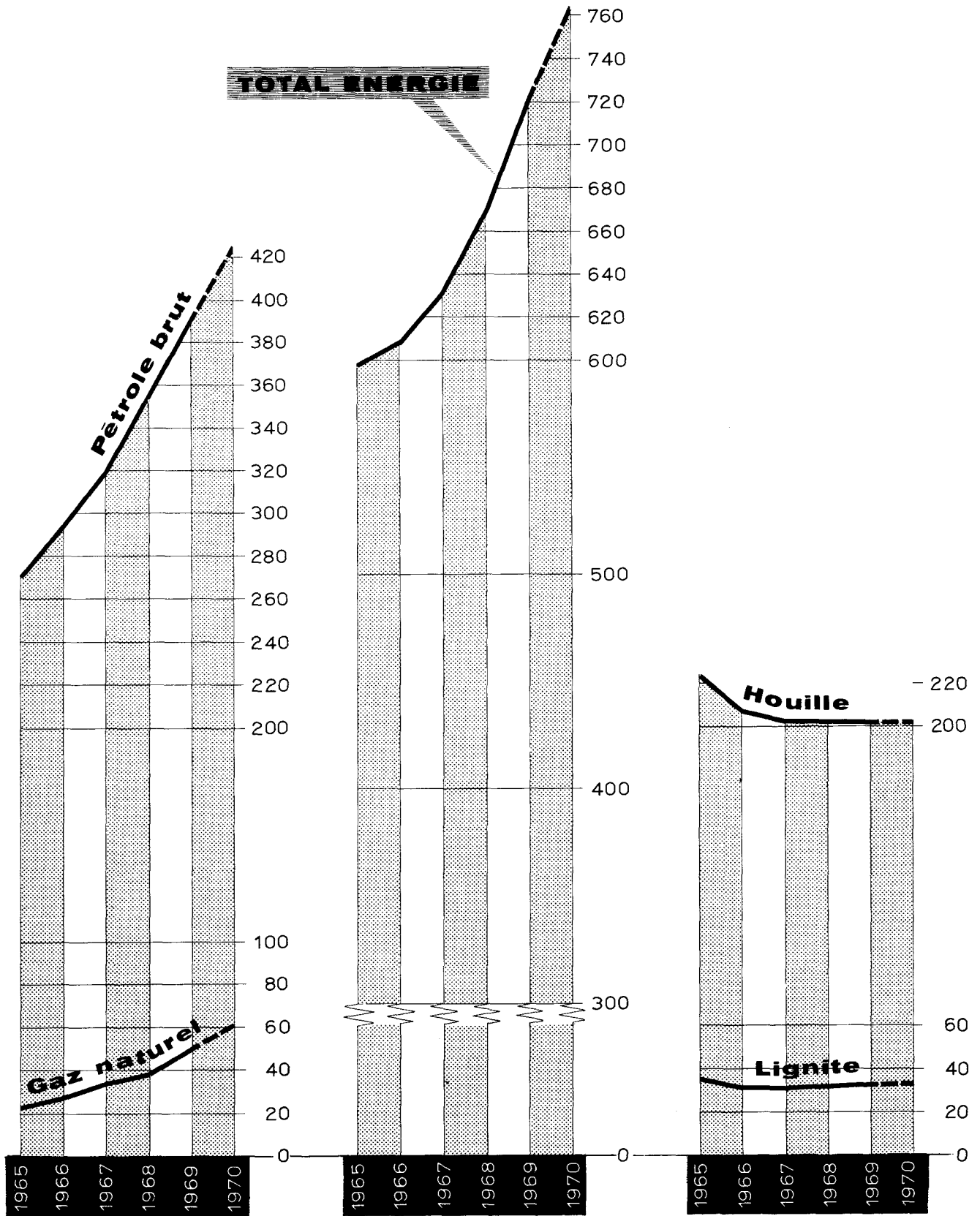
Consommation intérieure totale



GRAPHIQUE 2

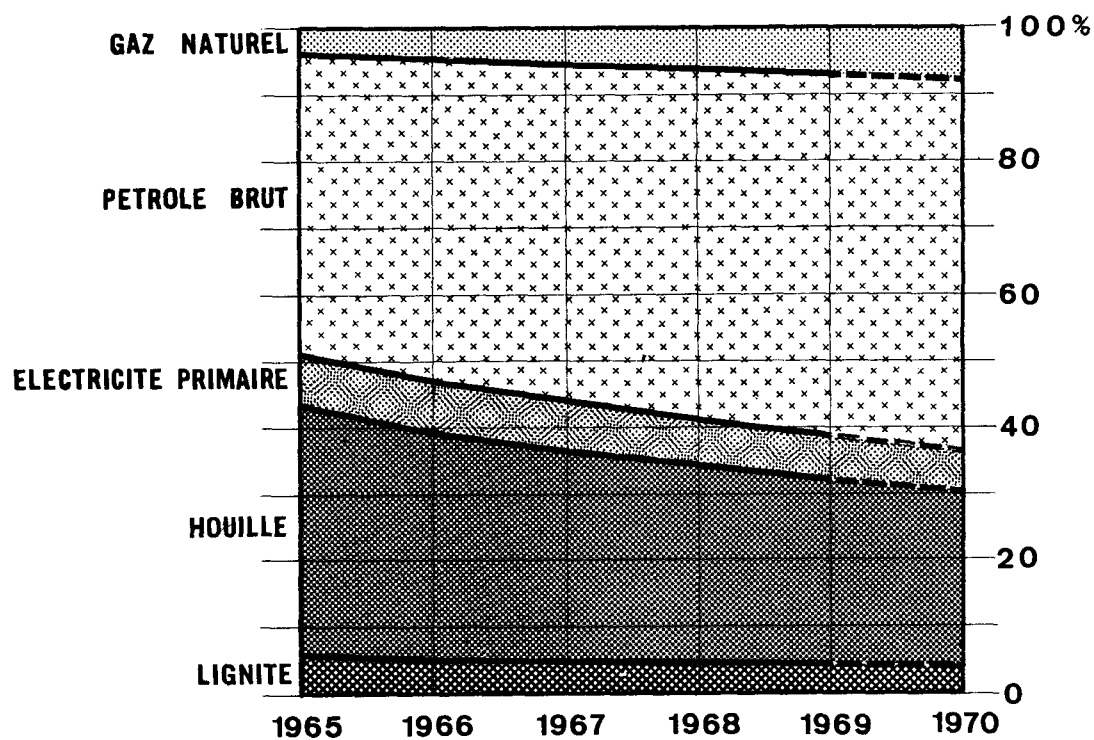
Consommation Intérieure d'énergie de sources primaires et équivalentes

COMMUNAUTÉ (millions de tec)



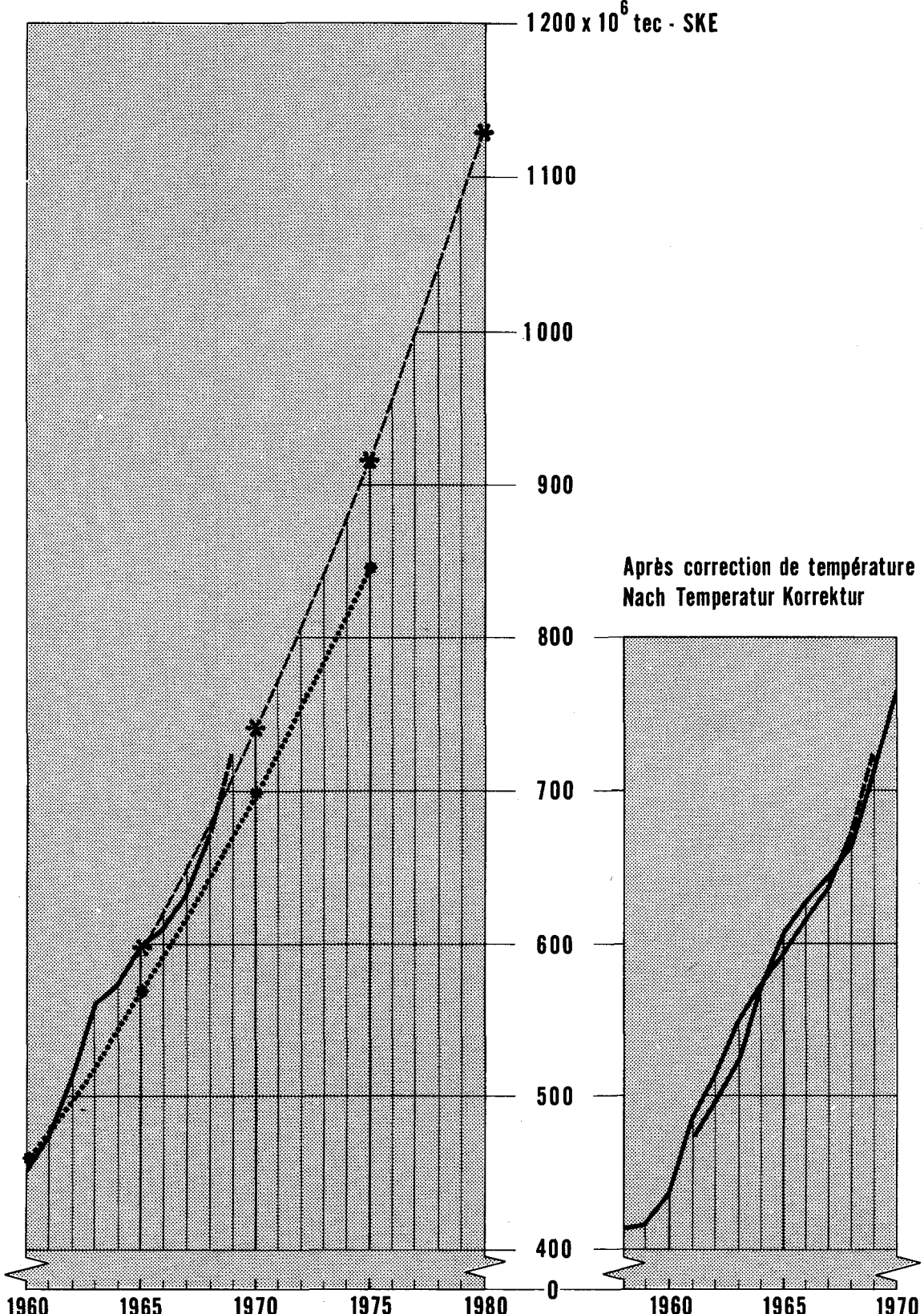
GRAPHIQUE 3

Parts des différentes formes d'énergie primaire dans la consommation intérieure de la Communauté



CONSUMATION INTÉRIEURE D'ÉNERGIE-COMMUNAUTÉ ENERGIEINLANDSVERBRAUCH-GEMEINSCHAFT

Comparaison des prévisions aux chiffres réels de consommation
Vergleich zwischen den Vorausschätzungen und dem tatsächlichen Verbrauch



- * — * Nouvelles réflexions sur les perspectives énergétiques (1965)
- Prévisions ("La conjoncture énergétique,")
- * — * Neue Überlegungen über die energiewirtschaftlichen Aussichten (1965)
- Vorausschätzungen ("Die Konjunktur im Energiebereich")
- ● Perspectives énergétiques à long terme (1961)
- Valeurs réelles corrigées

FÖRDERUNG UND SCHICHTLEISTUNG U.T. DER GESELLSCHAFTEN
 PRODUCTION ET RENDEMENT FOND PAR SOCIETE
 (1968)

