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## TOWARDS A NEW ENERGY POLICY STRATEGY FOR THE EUROPEAN COMMUNITY

Communication and proposals from the Commission to the Council

COM(74) 550 final/2

CONTENTS

	<u>Page</u>
<u>Introduction</u>	1
<u>Chapter I</u> - A strategy which takes account of the new situation in the energy market	4
A. The long-term objectives	5
B. The objectives for 1985	7
1) New hypotheses and constraints	7
2) Structure of the energy balance-sheet in 1985	9
Summary of the objectives of an Energy Supply Policy for a Community in 1985	10a
3) Dependence on imported energy sources	11
4) Nature and scope of the objectives	12
5) Investments and budgetary	13
<u>Chapter II</u> Electricity and nuclear energy	17
A. Demand for electricity	17
B. Electricity production	18
<u>Chapter III</u> Coal	22
<u>Chapter IV</u> Oil	25
<u>Chapter V</u> Natural gas	30
<u>Chapter VI</u> Conclusions	37
A. Implementing the objectives	37
B. Prices	38
<u>Annex I</u> Proposal for a Council Directive on limiting the use of natural gas in power stations.	
<u>Annex II</u> Proposal for a Council Directive concerning the restriction of the use of petroleum products in power stations.	
<u>Annex III</u> Proposal for a regulation of the Council concerning the common rules for imports and exports of hydrocarbons	
<u>Annex IV</u> Communication from the Commission to the Council regarding the rational use of energy.	

## Introduction

The recent change in the Community's energy supply conditions has been of an order which requires the objectives of energy policy to be adapted.

The experience of the latter part of 1973 and its subsequent repercussions must be an incentive to the Community to reduce its dependence for energy on the rest of the world to the utmost extent possible. Vigorous action must be taken in order both to guarantee greater security of supply and to prevent violent changes in the prices of energy materials, which always prejudice the effectiveness of investments undertaken and call in question the wisdom of the path economic development has followed.

The objective of developing more secure energy resources obviously raises the problem of the relative prices of the various primary energy sources. While action taken by the authorities can to a certain extent improve the supply situation without an adequate prices policy, the benefits of such actions can be put at risk.

In this field as in others, a number of factors must be taken into consideration. First, the energy sources which are to be promoted must be available at the lowest possible price, as an incentive to potential users. Secondly, the producers have no interest in making the investments necessary for the future development of production if the profitability is too low.

Lastly, special attention should be given to the role consumers themselves can play. While the increased costs of energy may brake demand somewhat in the short term, this may well be less so in the long term. It is therefore essential that the consumers be confronted with their collective responsibility to use more effectively energy resources, from now on rarer and costlier than before.

But the substantial increases in the price of imported oil do not only raise issues in the field of energy policy; they raise also questions regarding the adaptation of economic structures.

In the immediate future, the deterioration in the balance of payments is preoccupying. The trade deficit to support, if there are to be the same quantities of oil available as before, will result in an increase in the external debt of the Community as an immediate consequence.

In the longer term, the factors of production will have to be redeployed to meet, internally, the increased costs of energy, and, externally, the need to increase income from exports. The importance of these adjustments appears quite different for each member state. The differences in their initial situations and in their medium term prospects are of striking importance. They relate essentially to the balance of payments situation before the energy crisis, to the importance of crude oil imports relative to total GNP, and to the availability of alternative energy resources in the near future at a competitive price.

Thus, in certain member countries, the gap to fill to arrive at a balance of payments in equilibrium is much more important than in others. And in other cases, the very limited availability of indigenous traditional energy resources constrains any reduction in the near future of the degree of dependence for energy, and requires a special effort of investment to promote the development of nuclear energy.

These disparities are both valuable and hazardous for the Community. Valuable, because satisfactory cooperation among the member countries would make for a fairer sharing of sacrifices over a period of time to the benefit of the more exposed countries. Hazardous, because there is a danger that a difference in situations and prospects may lead to divergence in the policies and priorities of the individual member countries, the consequence of which would be to wipe out the potential advantages of the common market. To mitigate this risk, a Community energy strategy must be launched as soon as possible.

This strategy must comprehend the double objective of a unified market and security of supply between which there exists a close association: it is only if the union between the Member States - a union which reflects the principles of sharing the burden and that of the free circulation of goods - can function without hindrance in normal situations that it can have its full significance when supply difficulties arise.

Events require the Community to adopt a real strategy for energy supplies. The Commission has set out its concept of the totality of such a policy in its documents on the "Guidelines and Priority Actions for a Common Energy Policy"\* - which is based upon a threefold approach: relations with other consumer countries, relation with producing countries and the organization of the market.

Regarding the first two of these themes, the Commission refers to its previous communications to the Council<sup>1</sup> and stresses the fact that the policies suggested therein are entirely compatible with the new strategy here set out. Defining a Community policy for energy supplies means that stable and balanced relations must be established both with the consumer countries and with the energy-producing countries; though in itself the defining policy will give more substance to future cooperation with both categories of country.

Consistent with the objectives of the new Community energy policy, the Commission considers that R & D is one of the important measures to implement them.

Based on preparatory<sup>2</sup> work already underway, the Commission will submit to the Council, in the very near future, a document setting out guidelines for research priorities, and underlining the importance of the financial measures, public and private, required for their implementation.

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\*(doc.SEC(73) 1481 final)

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1

cf. Docs. COM(73) 1320 and COM(74)90.

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In particular, based on the Council's resolution of the 14 January 1974 concerning a European Community programme in the area of science and technology (J.O. No C 7/6), the outline of an energy research programme presented by the Commission within that context, and an interim report prepared by a Sub-group of CERD

CHAPTER I. A strategy which takes account of the new situation in the energy market.

In its communication to the Council on "Energy Policy: Problems and Resources 1975-1985"<sup>1</sup>, the Commission pointed out that, in the face of the uncertainties affecting the supply conditions for oil, two main hypotheses should be examined : first, that of a stable market with some surplus available, and, secondly, that of a market where supply tightens, causing prices to rise considerably.

The Commission analysed the consequences of the second hypothesis and stated that "such an escalation in prices could profoundly modify the structure of energy demand in the Community if it reached the stage of changing the ratio between the price of oil and the costs of competing forms of energy"<sup>2</sup>:

- (i) it would slow down the increase in the demand for oil;
- (ii) open up greater prospects for nuclear energy;
- (iii) lead to a potential increase in the supply of natural gas;
- (iv) produce a more competitive Community coal industry, and give rise to the development of a greater potential market for imported coal.

From now on, this view of the future must be the basis of a Community energy policy. It might have seemed highly unlikely in 1972 but with the sharp rise in the price of oil, it now seems to have become the correct hypothesis. Even more than in the past, stress should be laid on the need for security, by seeking to create a structure in which no one decision centre can have such an importance for supply that it can compromise the overall stability of deliveries, in quantity or in price.

To meet this heightened necessity, it is essential that the Community adopt a clearly-defined policy. If it failed to do so, it would lay itself open to the harmful economic consequences referred to in the introduction; and it would risk seeing its energy supplies placed at the mercy of fluctuations over which it would have no control.

This chapter examines successively:

- (i) the long term objectives the Community should adopt:

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<sup>1</sup>Doc. COM(72) 1201

<sup>2</sup>idem, p. 25

- (ii) the more immediate outlook, and the resulting constraints on the long term strategy.

Subsequent chapters will draw the main policy conclusions for each energy source. A final chapter examines the ways and means of implementing policies to achieve the objectives proposed.

The strategy set out here is confined to the problems of energy supplies, but meshes with a range of community policies which impinge on this sector, such as those for the environment, scientific and technical research, transport, industrial and social policy/ and cooperation with developing countries. The problems arising in these areas are not referred to here (see the communications which the Commission has already presented<sup>1</sup> or will shortly present to the Council). The Commission points out however that the adoption of a new Community energy strategy would give a fresh impetus to the energy aspects of these policies.

A. The long-term objectives

A reasonable aim for the end of the century would seem to be an energy supply structure relying mainly on two components:

- 1) Compared with other energy sources, nuclear energy is clearly the best solution for the large-scale production of heat either for electricity generation or for industrial uses<sup>2</sup>. This is because of its ready availability, adaptability, and ease of transport and storage, and the fact that it safeguards the environment. For these reasons - bearing in mind the small relative part played by fuel costs in the total costs - nuclear energy can potentially offer a high degree of security of supply, even if the Community itself only has limited resources of uranium ore. More than for most of the other energy sources, a policy of diversifying sources of supply, and establishing stable relationships with the producers, could rapidly reinforce that security.

Of course, the development of nuclear energy will have its difficulties, but none seem insurmountable, provided that the necessary action is taken quickly

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<sup>1</sup>Preliminary report on the problems of pollution linked to the production of energy  
DOC. SEC(74) 1150 final)

<sup>2</sup>It is only the production of electricity which is of major importance at present, but in the long term the potential nuclear energy market could cover a wide industrial field: production of synthesis gas, generation of steam, etc.

enough and pursued resolutely (technology, environment, sites, waste products, financial capacity for investment, industrial capacity, the training of qualified manpower).

At least 50% of total energy requirements around the year 2000 could be covered from this source. Apart from industrial uses and electricity production, nuclear energy could have an additional advantage, that of making it possible to increase hydrogen production, which comes under the second heading.

2) The gas obtained from a variety of primary sources (natural gas produced in the Community or imported from non-member countries, oil or solid fuels transformed into synthesis gas) could cover nearly 30% of energy consumption, mainly for heating buildings and for industrial processes with particularly demanding conditions (high-temperature processes, metal processing, synthesis). Over and above its inherent advantages as regards pollution and the rationed use of energy, gas also offers in the long term the advantage of an additional outlet for nuclear energy: the infrastructure for transporting gas could gradually be used for distributing hydrogen or synthesis gas produced by means of heat of nuclear origin.

In thirty years time, therefore, if the Community concentrated on creating an energy economy based on nuclear power and gas, it would only be left with a very limited dependence on coal and oil. Taking account of the use to some extent of coal and oil products for gas production, but also of the fact that non-conventional energies (particularly solar and geothermal energy) could begin to play a small role by that time, coal and oil used according to the "classical" techniques may by then be meeting only a quarter of total needs.

The achievement of these long-term aims, set out in orders of magnitude, depends on a whole set of conditions, the most important of which are as follows:

- (i) the necessary action must be taken immediately. In particular, the energy research and development programme need to be intensified



and speeded up so that the technological problems still to be overcome may be solved in good time

- (ii) action in pursuit of these objectives must be compatible with solving the serious short and medium-term problems which arise, notably those of security of supply. Such action must be sufficiently flexible to adapt to circumstances which may well change in the future.

Finally these objectives can only be realised if, at a stage when decisions are more advanced, account is taken of the consequences their implementation might have on the natural environment and the quality of life (damaging the natural environment because of pollution and because of an increasing scarcity of natural resources, a reduction in the quality of life by the increased intensity of land use etc.,).

B. The objectives for 1985

I. New hypotheses and constraints

In drawing up a new energy supply strategy for the next ten years, it is necessary to examine the validity and continuing reliability of those basic hypotheses which have hitherto been considered the most likely.

Four main factors require consideration:

a) The rate of economic growth, insofar as it affects energy demand.

The present predictions of economic growth justify the adoption of a hypothesis for the growth of GNP of less than the average annual rate of about 5.0% previously accepted for the period 1970-1985. Nonetheless, the relatively high rate of 4.5% has been assumed to ensure that the energy requirements are not underestimated

b) Interchange in demand for energy

The new price relativities between the various energy sources will bring about changes in the demand for most of them.

However, account must be taken of a series of constraints characteristic of energy consumption, namely that certain consumer sectors cannot change from one source of energy to another, or can only do so by gradual steps, for technical reasons as well as economic ones.

In practice, as an example, sectors such as the iron and steel industry and motor transport offer little flexibility in demand, even in the medium term, whereas the production of electricity can be based on a number of different fuels, and the capacity to adapt is therefore greater.

Thus the room for manoeuvre when drawing up a strategy for energy supply is limited by these demand factors.

c) Rigidities in supply

Some sources of energy will have to be used whatever the circumstances, either because they are "by-products" of certain production processes (e.g. coke-oven gas or refinery gas) or because the investment to be authorized must be based on long-term prospects of profitability (e.g. North Sea oil; natural gas; possible new coal mines). Other sources have greater flexibility and make it possible to take measures e.g. to achieve greater security of supply.

d) Investment

It is clear that despite the recent considerable increase in oil prices, the future development of prices of substitute sources of energy is still very uncertain. They could compromise future investments which, while fulfilling the needs of a reinforced security of supply, could become less profitable owing to economic fluctuations.

The strategy to be developed must set out to increase the flexibility of demand, and try to develop those sources of supply having the most flexibility; however, this double approach will only be implemented over a more or less extended time-scale. As far as it is technically and economically possible, use must be made of forms of energy with a high degree of security of supply, where there exists a demand which can absorb them (either immediately or gradually by means of certain structural adaptations). The balance to be covered from more uncertain sources should correspond as far as possible with the most flexible part of the demand.

The plan should include quantified targets which would constitute a framework of action like that which the Commission had already put forward in 1968\*.

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\* Preliminary guidelines for a Community energy policy. Doc. COM(68) 1040.

In its 88th meeting on 13.11.69, the Council approved the basic principles of this communication and particularly the appropriateness of developing medium-term estimates and guidelines for various energy sources (cf. R/2206/69 (ENER 13))

## 2) Structure of the energy balance-sheet in 1985

In view of these restrictions, it appears reasonable for the Community to set the following targets for the next few years :

### - on the demand side

- (a) the implementation of a deliberate policy to obtain a more efficient use of energy, reinforced by the effects of the price rises, should make it possible to reduce by one percentage point the average rate of annual increase in requirements between 1973 and 1985 \*, without in any way reducing the economic and social product obtained by means of the energy consumed. Total internal energy consumption would then be approximately 10% lower than the figure originally envisaged. (\*\*)
- (b) as soon as it can be done without increasing dependence on oil, electricity consumption must be encouraged, so as to ensure that 35% of total energy is consumed in this form, compared to the present figure of 25%. This will establish the largest possible market for nuclear energy. This expansion must, however, be gradual and compatible with the objective of stabilising and then reducing the consumption of petroleum products in power stations.

### - on the supply side

- (c) nuclear facilities would be increased and could cover half the production of electricity from the middle of the next decade. The objective to be laid down should also take into account the possible extension of nuclear power to the production of industrial heat. It would appear possible, subject to certain prerequisite conditions, to have a total available capacity of more than 200 GW.
- (d) solid fuel consumption must increase, making use of both domestic production, which will have to be stabilized at least at the present level, and the maximum amount of coal which it will be possible to import on satisfactory terms with regard to price and security of supply.

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(\*) The estimates for 1970/1985, drawn up for the Community of Nine at the beginning of 1973, were based on an average annual increase of total needs (=internal consumption + exports + bunkers) of 4.6% between 1970 and 1985. In view of the slackening-off in recent years, an average annual rate of 5% must be obtained to achieve the consumption figure initially estimated for 1985 on the basis of 1973. The objective corresponds to an average rate of 3.8% for the period 1973/1985.

(\*\*) On the assumption that exports and bunkers are irréductible.

- (e) the high potential demand for natural gas must be met by an increased supply, both from within the Community and from outside, provided that the necessary economic conditions are fulfilled.
- (f) as the Commission pointed out in 1972 : "oil consumption would be concentrated mainly on specific uses, i.e., for motor fuel and for certain applications as a raw material. Consumption of liquid fuels would be limited roughly to the amount inevitably produced as a by-product of refining the oil used for such specific purposes" \*. Strengthened by the more efficient use of the energy available (cf. (a)), this trend to substitution would gradually halt the increase in crude oil requirements, and it is possible to aim at an objective of holding these requirements, by the middle 1980's, at a level barely higher than that of 1973, after a slackening growth rate continuing until around 1978/80. By this time, the arrival of new sources (North Sea) will tend to reduce significantly the share of the present suppliers in the overall supply of the Community.

The following table compares these objectives with, on the one hand, the actual distribution of consumption amongst the various energy sources, and, on the other hand, with the forecasts made in 1972.

Total primary energy needs in 1985 \*\* - Community

	1973 (estimates)		1985 (initial forecasts ***)		1985 (objectives)	
	Mill.toe	%	Mill.toe	%	Mill.toe	%
Solid fuels	227	22.6	175	10	250	16
Oil	617	61.4	1160	64	655	41
Natural gas	117	11.6	265	15	375	24
Hydroelectric power and others	30	3.0	40	2	35	2
Nuclear energy	14	1.4	160	9	260	17
	1005	160	1800	100	1575	100

(\*) Doc. COM(72) 1201, p. 25

(\*\*) Internal consumption + exports + bunkers

(\*\*\*) Source : "Prospects of primary energy demand in the Community (1975-1980-1985) (Doc. SEC(72) 3283 final), and an additional estimate made in January 1973 for the new Member States (Doc. SEC(73) 128).

A Summary of the objectives of an Energy Supply Policy  
for the Community in 1985

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I Energy demand

- 1) To reduce estimated consumption in 1985 by 10% in relation to the amount initially estimated for 1985) by the more efficient use of energy.
- 2) In step with the development of nuclear energy, to increase the consumption of electricity, which should in 1985 represent 35% of energy consumption 25% in 1972).

II Energy supply

- 1) To limit to 40% (63% in 1973) in 1985 the degree of Community dependence for energy on outside sources.

2) Oil

To limit to 40% (60% in 1973) the share of oil in the overall energy supply.  
To limit to 75% (98% in 1973) the degree of dependence on outside sources for oil supplies.

This implies production of 180 mtoe in the Community.

To shift the emphasis of demand as a result, in particular by reducing consumption of heavy fuel oil in power stations.

3) Solid fuels

To maintain the absolute level of current production (~~from about 205 mtoe in 1973 to 215 in 1985~~) increase imports (35 mtoe in 1985), to maintain the share of solid fuel in the overall energy supply at more than 15% (about 23% in 1973).  
for coal 180 mtoe or 255mtoe

To shift demand in power stations as often as possible towards coal, and, at the least, wherever nuclear energy cannot be used (i.e. replacing oil products and natural gas).

4) Natural gas

To make extensive use of this source of energy, the share of which in the overall supply should increase from about 2% in 1973 to 25% in 1985.

This will entail:

- (i) at least doubling Community production (115 mtoe in 1973);
- (ii) for the most part, using imports from a diversity of origins.

In respect of demand, the use of natural gas in thermal power stations - and perhaps in certain industries - should be discouraged.

5) Nuclear energy

To ensure coverage of 50% of electricity needs in 1985 by nuclear energy.  
This implies an installed capacity of at least 200 GWe for electricity production (+ 20GWe for other uses).

3) Dependence on imported energy sources

In view of its natural resources it is not possible for the Community to take independence in the energy sector as a medium-term objective. Given the change in market conditions, however, it is obliged to accept the task of increasing the security of its supplies. The objectives set out above fall into this pattern, and would make it possible to reduce the share of imported energy in total consumption from 60% to 40%.

1985 energy balance <sup>(1)</sup>

Breakdown by origin

	1973 Estimates		1985 Original projections		1985 Objectives	
	Mtoe	%	Mtoe	%	Mtoe	%
Production <sup>(2)</sup>	370	37	640	36	915	58
Imports	635	63	1160	64	660 <sup>(3)</sup>	42
	1005	100	1800	100	1575	100

<sup>(1)</sup> Total Community requirements (internal consumption + exports + bunkering)

<sup>(2)</sup> Including nuclear energy

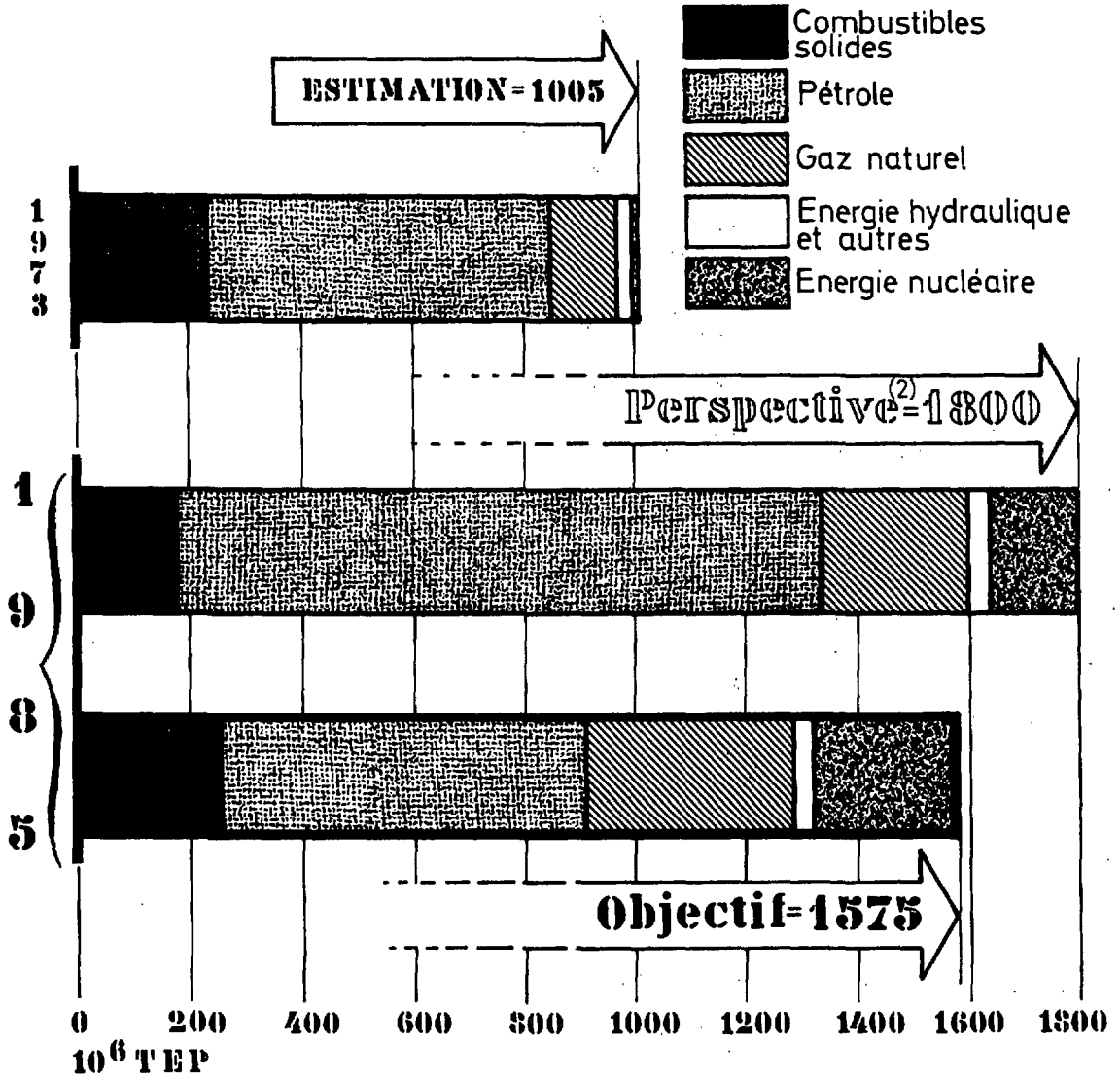
<sup>(3)</sup> Including the non-EEC North Sea (= 50 - 100 Mtoe, or 3 - 6% of the total)

The degree of dependence indicated by the foregoing overall percentages must be qualified, however. Firstly, indigenous production cannot be considered completely secure unless it combines physical availability with price stability. This is the basis on which its share in the supply of the various energy sources has been determined.

Furthermore, all nuclear energy, even that generated from imported fissile materials, has been included in indigenous energy fulfilling the foregoing criterion, owing to its inherent characteristics, which were discussed above.

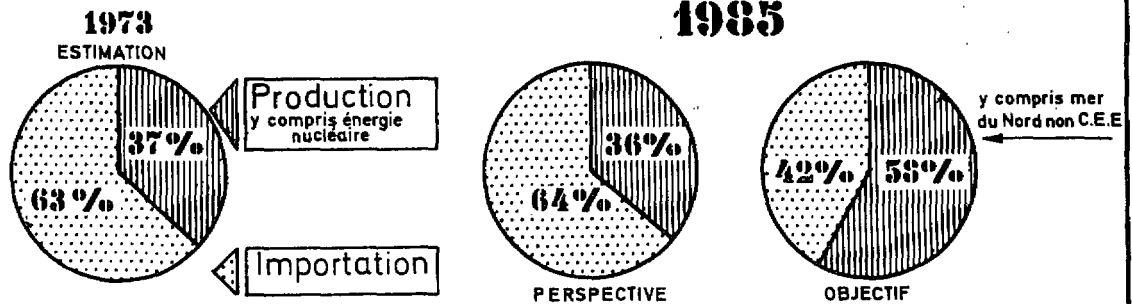
Secondly, each of the potential sources included in the 42% of energy imported has a different degree of security, from the quantity and price angles. It is therefore possible to attain a higher level of overall security than is suggested merely by the distinction between indigenous and imported energy.

# BESOINS TOTAUX D'ENERGIE DE LA COMMUNAUTE EUROPEENNE EN 1973 & 1985



(1) consommation intérieure + exportations + soutes  
 (2) sur la base des conditions du marché à fin 1972

## DÉGRE DE DEPENDANCE VIS A VIS DE L'ENERGIE IMPORTEE



The strategy required must therefore operate in several areas:

- promoting structural adjustments to demand so as to reduce its rate of increase;
- promoting adjustments to demand, as far as is possible, to match a new supply structure, in which energy sources with a low security level take as small a share as possible;
- promoting the development of new sources, i.e., those most reliable from the quantitative and price angles;
- creating conditions which will serve to enhance the security of indispensable sources which carry a higher degree of risk.

In these circumstances it seems not impossible to set at 25% at most (instead of 50%, as in the original projections) the proportion of high-risk energy sources in the total balance for 1985.

#### 4) Nature and scope of the objectives

It must be emphasised that the foregoing figures have the status of objectives, not of forecasts. As such, their purpose is to crystallise the nature and scope of a political commitment that the Community would assume with a view to shaping its supply structure in a particular way. This objective must, however, display adequate flexibility both in space and time.

In terms of space: clearly, their attainment in each of the Member States must be adjusted to match specific initial situation, and the possibilities and constraints which exist. Their pursuit at Community level requires joint responsibility on the part of the undertakings, the Member States and the Community. Depending upon their own circumstances, and subject to their competence, the protagonists may be called on to act at a different pace or according to different procedures, but their actions as a whole must converge along the guidelines agreed on at Community level.

In terms of time: the Commission has already emphasized that the need for a framework of action to ensure continuity in energy policy must not stand in the way of its being adjusted to any changes in the factors on which it is based<sup>(1)</sup>. This will be one of the tasks of the Energy Committee set up by the Council Decision of 30 January 1974, namely, to assist the Commission in the periodic reappraisal of objectives, so that the latter will be able, where necessary, to formulate proposals designed to modify those objectives.

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(1) "First Guidelines for a Community Energy Policy (doc. COM (68),1040  
Chapter A : Framework of Action



Moreover, these objectives cannot be isolated from the Community's other policies as a whole. They go some way, for example, towards determining the substance of actions that will be undertaken in such fields as the environment, external relations, scientific and technical research, industrial policy, etc.

5) Investment and budgetary costs \*

The proposed strategy is characterized by increased reliance on Community production, and in particular accelerated expansion of the nuclear sector, and it no doubt requires investments. But could the Community really spare itself this investment otherwise than at the cost of diverting even greater resources into exports? For, in overall economic terms, the energy dilemma - "invest or import" - translates into "invest more or export more", owing to the need to keep the trade balance in equilibrium in the long term. The cost in both cases is measured in terms of the possible slowdown in real consumption. The cost of the proposed policy must therefore be compared, not with the status quo ante oil crisis, but with the costs that could be attributable to a less voluntaristic evolution of energy supply, in the new conditions on the energy market.

While it is therefore appropriate to enquire what would be the cost, to the European economy, of investments in the energy sector (leaving out induced investments in the other sectors of industry) that cost must nevertheless be estimated as a differential cost relative to a hypothetical spontaneous trend.

Lastly, a third problem arises with regard to the decision to invest, for it does not suffice if investments are macro-economically feasible: the undertakings must also be in a position to invest.

a) How investments in the energy sector will weigh in the European economy

The attainment of the aforesaid objectives would, in investment terms, have the following results:

- Cumulative investments in the energy sector as a whole, in the period 1975-85 would be approximately 300 000 million 1973 dollars.

- A major proportion of this would be absorbed by electricity, with total expenditure of the order of 150 - 180 000 million 1973 dollars, including 120 000 million dollars in the nuclear sector.

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\* The Commission proposes to send a more detailed document to the Council at a later date on investment aspects of the strategy.

In the hydrocarbons sector, where the figures are subject to the greatest uncertainty, it can be assumed that the emphasis placed on Community gas and oil and some decline in investment in refineries would result in expenditure of the order of 110 000 million 1973 dollars. Lastly, maintaining the output of solid fuels should account for about 6 000 million dollars.

- Whereas investments in the energy sector accounted for some 1.5% of the Community product in the period 1965-70, the figure will probably be between 2 and 2.5% for the period 1975-85. In very general terms the additional investment would be between 0.5 and 1% of Community product. In itself this additional investment would demand no more than relatively small sacrifices of the Community GNP, but these would be additional to those which will be necessary in any event in order to increase exports.

The position will differ between Member States, however, owing to both the structure of their energy supplies and to their economic situations. The need to maintain their equilibrium individually, as part of an overall equilibrium, may in certain cases lead to structural changes which may warrant a call for some form of Community solidarity.

b) The cost of the proposed policy

Community

In the absence of any strategy, the higher oil prices now ruling would result in slower growth in the consumption of oil and energy than was forecast before the crisis, but that growth would be higher than is implied by the proposed policy. It is against the yardstick of this assumed market reaction that the additional cost required to attain the objectives must be assessed.

As a first approximation, and on condition that a significant fall in the price of imported oil does not come about, the proposed strategy is estimated to result in a net extra investment effort of around 10.000 million dollars during the period 1975/85, but from the balance of payments point of view, the strategy represents a net economy of around 50.000 million dollars during the same period. In both cases these are cumulative figures for the period in 1973 dollars.

In total terms, it is apparent that the additional investment made necessary by the new strategy is out of all proportion to the additional exports which the European economy would otherwise have to make in order to offset hydrocarbons imports. Furthermore, the additional investment in itself is not a prohibitive obstacle; for the emphasis on the nuclear sector affects only power stations (investment in transmission and distribution being approximately the same whatever form of production is used) and permits lower investment in refining.

In fact, on a macro-economic level, the new strategy will facilitate security of supplies and, far from increasing the cost of supplies, will make them progressively cheaper. To be sure, a large drop in the price of imported energy could alter the situation, but can one reasonably expect a reduction in the cost of imported energy if no competitive alternative (i.e. Community energy) is offered?

c) The decision to invest

If it is recognized that the new strategy is possible and desirable on the macro-economic level, every effort should be made to implement it. Entrepreneurs may hesitate in the face of a <sup>number of notably</sup> obstacles / the amount of investments entailed and the time-scale of the operation, on the one hand, and uncertainty about future energy prices, on the other. These two factors play a decisive part in calculating the profitability of investments and hence in taking the decision to invest.

If the Community is to clear the way towards implementing its policy it must state its position unequivocally as regards prices and indirect taxation in this field.

Thus one of the cornerstones to be erected appears to be a prices policy which offers conditions for the adequate long-term profitability of investments which are designed to attain the objectives set. Such a policy would have to provide, where necessary, for incentives to speed up investments which would not otherwise be made, or for measures of a fiscal nature to ensure, among other things, that energy sources with a low initial cost do not receive an undue financial benefit.

In addition, the size of the investments in question will necessarily lead firms to call on the international capital market, and it is thus important that the Community should facilitate their obtaining such finance.

d) Budgetary implications

The strategy proposed entails no additional budgetary expenditure, except in so far as the Member States or the Community might have to take steps to curb or stimulate certain spontaneous trends. Some measures of this kind are envisaged in the following chapter, but it is not yet possible to estimate their cost or to indicate with any precision their scope and detailed characteristics.

In an attempt to arrive at some idea of the order of magnitude one could consider, for example, the amount of resources that would accrue from a moderate

levy on energy consumption and compare this amount with the sums already allocated to actions in the energy sector by the Community and the Member States and with recent Commission proposals.

By way of an example, a charge of 0.01 u.a. per barrel of oil equivalent on all energy consumed in the Community in 1973 would have yielded a total of 70 m u.a.

The following sums can be taken as the basis for a comparison with these figures:

- Provision has been made for an annual budget of 25 m u.a. in support of Community projects in the hydrocarbons sector<sup>(\*)</sup> in the financial years 1974-76.
  
  
  
  
  
  
  
  
  
  
- The total amount of direct and indirect aid granted in 1973 by the Member States pursuant to Commission Decisions Nos 3/71 and 73/287 was of the order of 1.5 thousand million u.a.

As regards revenue, the new situation concerning prices will increase the amount of revenue accruing to the Member States as a result of indirect ad valorem charges. In addition, the amount of expenditure incurred in supporting the coal industry will diminish to some extent.

Thus, it would be possible to keep the budgetary expenditure entailed in adopting the strategy proposed to a reasonable level. As for investments, guarantees of market stability are an important factor governing the choice to be made. They must be given in order to encourage long-term budget commitments. The provision for periodic revision of the objectives would, however, make it possible, where necessary, to avoid expenditure for which there is no further use.

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In order to attain these objectives as fully as possible by 1985, a real supply policy will have to be implemented for each source of energy by means of appropriate incentives or curbs in the administrative and financial fields, at Community level and in the Member States.

The following chapters trace the broad lines of this policy.

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(\*) Regulation (EEC) No 3056/73 of the Council of 9 November 1973 - OJ L312, 13 November 1973, p.1.

CHAPTER II - ELECTRICITY AND NUCLEAR ENERGY

In the new breakdown of the total demand for energy among the different energy sources, efforts should be made to assign the largest possible share to electricity for reasons of price and security of supply.

The cost of fuel for conventional power stations represents approximately one-third of the final cost of electricity to the consumer. With the growth of the share of nuclear energy, for which the fuel cost is still lower, the effect of the cost of fossil fuels on the price of electricity will decrease.

Electricity is also a reliable form of energy as it can be produced from a wide variety of sources.

A. Demand for electricity

Over the last ten years, the average annual rate of increase in demand for electricity has been 7.2% in the nine Community countries, which represents a doubling of demand every ten years.

The economic advantages of electricity and the security of supply which it affords should result in wider use being made of it more quickly, especially in heating and transport.

This increase in demand must not, however, upset the overall energy balance by increasing dependence on petroleum products; it must, therefore, be geared to the contribution of nuclear energy to overall electricity production.

It is difficult at present to contemplate a higher rate of increase than that of the past few years. Only from 1980 onwards will the full effects of the substitution of electricity for petroleum products be felt. The annual rate of increase in the production of electricity could then be 8% and reach 9% during the period 1985-90. The share of electricity in total primary energy consumption would then be 35% in 1985 instead of 25% as at present.

Boosting the use of electrical energy in this way depends largely on rational use of the available power stations, which will call for a better return on the capital invested. Constancy of demand during the day, the week and the year will be of primary importance if nuclear power stations are to be operated economically. Appropriate pricing measures should, therefore, be taken to encourage consumption outside peak periods.

To provide producers with the necessary income to finance nuclear power stations, tariff readjustments reflecting the real costs of production, transport and distribution should be decided without delay.

B. Electricity production

Electricity generation for conventional energy sources will remain important until the end of the next decade.

1. Apart from pumped storage, hydroelectric production will only increase slightly, since there are now practically no more sites in the Community countries with a head of water which could be economically exploited solely for the production of electricity.
2. Brown coal will continue to enjoy mainly regional importance. It can be extracted at a reasonable cost from the deposits currently being worked in West Germany. Once nuclear energy can meet the increased demand for electricity, it will be preferable to endeavour to make more profitable use of part of the brown coal extracted from these new deposits than that afforded by its application as a fuel in thermal power stations (e.g. gasification).
3. The production of electricity from manufactured gas and other by-products or waste will expand at approximately the same rate as the industry producing these fuels.
4. In view of the limited quantities of natural gas in the known deposits of the Community, this fuel should as a general rule be reserved for more economic uses than fuelling power stations. It should be available for electricity generation only on condition that supplies are interruptible, and only when more profitable use is temporarily impossible, or the use of gas is essential for economic, technical or environmental reasons.
5. For power stations burning petroleum products, the long-term aim must be to restrict their consumption entirely to heavy residues from refineries, which cannot be used for other purposes. To achieve this aim, permission to build new oil-fired base-load plants must henceforth be refused unless exceptional reasons exist.

- Low-output power stations designed for the production of energy to cover demand peaks
- Use of fuel oil to ensure the ignition of other products
- Use of a residue which cannot be put to a better use
- Impossibility of using other fuels for economic or technical reasons.

Existing oil-fired power stations and those under construction should as far as possible be gradually used as medium- and peak-load plants. These measures should make it possible to reduce oil-based electricity production from the present 30% to less than 20% in 1985.

6. Coal will have to play an increasing stop-gap role in electricity production because, between now and 1985, the production of coal-fired power stations could be increased by 30 to 50%, if corresponding quantities of coal are available. However, the fact that coal is now reaching the threshold of competitiveness with petroleum products for electricity generation is not in itself enough, in the present circumstances, to influence the supply of coal. If the available quantities of steam coal are to be substantially increased, long-term contracts must be concluded between the coal producers and the electricity producers. In a situation marked by rapid and unforeseeable changes in the prices of petroleum products, the electricity producers cannot enter into such commitments unless the authorities offer them adequate guarantees.

7. a) Nuclear energy having now become economically competitive with all other sources of primary energy, production of electricity in nuclear power stations must be increased as quickly as possible for security reasons. In the long term - by the year 2000 - nuclear energy will become the privileged source of energy by reason, firstly, of the use of breeder reactors, and, secondly, of fusion devices. It will be able to satisfy a large proportion of our energy needs: electricity generation, process heat, gasification of coal and brown coal, production of synthetic gas and hydrogen, and the propulsion of ships.

Between 1985 and the end of the century, the importance of these applications will nonetheless remain relatively limited. In the short and medium term, the fundamental role of nuclear energy will be to provide an alternative form of energy for producing electricity. Its sphere will encompass all electricity production which:

- cannot be obtained from "inevitable" or privileged fuels (industrial gases, hydro-electric energy, geothermal sources of power, brown coal), and
- requires a high load factor.

The aim is to ensure that by the mid-1980s, 50% of electricity production is nuclear-based.

This figure represents an installed capacity of at least 200 GWe in 1985, to which could be added the production of process steam, which in 1985 could be equivalent to an annual oil consumption of about 25 million metric tons.

- b) In order to attain this nuclear production objective three main problems must be solved:
- i - that of the capacity of the Community industries to build the required power stations in the time required. One advantage is that it takes less time to develop this capacity than to construct the power stations;
  - ii - that of ensuring that the development of nuclear energy does not harm either public health or the environment. With this aim the Commission has already sent the Council of Ministers in February 1974 a document on the promotion of the use of nuclear energy<sup>(\*)</sup>, which lists, with a precise timetable, all the measures which the Commission intends to take or pursue in this field, including the following:
    - . the forward analysis of the potential radiological implications of nuclear construction programmes over a period of 25 years, together with the adaptation of basic standards of health protection to the advance of knowledge in this field;
    - . the transport of radioactive materials;
    - . the recording and storage of radioactive wastes;
    - . the safety of nuclear installations;
  - iii - that of the supply of nuclear fuels to power plants which is due to, on the one hand, the small amount of the Community's own resources of natural uranium, and, on the other hand, the Community's position as a net importer of enrichment services at least until the middle of the next decade.

For natural uranium, it is necessary to have sufficient and secure resources. For this purpose, it will be useful to study what support the Community could give to industry, the ability of that industry to make the supply available, and the contract policy the users must eventually follow. Security of supply requires that stable, balanced relations should be established with the producing countries and that a stock policy should be defined. These questions are in the process of being examined with the Consultative Committee of the Euratom Supply Agency. Proposals for action will be submitted to the Council at a later date.

For enriched uranium, the Commission has already submitted to the Council a proposal about the creation of European uranium enrichment capacities (\*\*), which it is necessary for the Council to deal with without delay.

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(\*) Doc. COM(74) 10

(\*\*) Doc. COM(73) 4065 Final



- c) It is moreover, in the Community's interest to encourage the development of new reactor types to contribute to security of supply, both by the development of the breeder reactor and by preparing the way for more rational utilization of nuclear energy as a source of heat by the use of high-temperature reactors, and even by combining the advantage of these two lines of approach.

CHAPTER III - COAL

A. The increase in oil prices which has taken place since October 1973 has made a large part of Community coal production competitive with other fossil fuels. However, the coal industry is unable to adapt rapidly to this new situation on account of the time required to develop new productive capacities and to recruit and train the requisite manpower, of the need for a guaranteed return on the heavy investment required, and of the fact that for technical reasons mines once closed cannot be reopened.

Power stations and the steel industry account for 80% of Community coal consumption in about equal proportions, nine-tenths of which are produced in the Community.

In view of the characteristics of the steel industry in respect of the quality of coal required and its relative inflexibility as regards the use of other fuels, it can be expected that its coal consumption will remain relatively stable and that Community coal will continue to remain in competition with imported coal.

In electricity generation conventional power stations will continue to play an important role despite accelerated programmes of nuclear construction, and the Commission believes that a substantial proportion of this conventional electricity production should be coal-fired. Coal consumption in this sector could, therefore, increase dynamically, thereby offering the best prospect for reducing the Community dependence on oil imports.

B. World energy supply prospects and the objectives of Community energy policy imply that action should be taken in the following three principal fields:

1) Community Coal Production

The Commission considers that between now and 1985, Community coal production be maintained at least at its present level of approximately 250 metric tons. The following measures are required to secure this objective and thus to enable the coal industry to continue to play a significant role in covering the Community's energy requirements:

- Rationalization of the coal industry by concentrating production in regions with high or potentially high productivity. Where production is maintained on a temporary basis for reasons of regional or social policy, the additional costs arising therefrom should be borne by the appropriate Community, national or regional authorities;
- Community action to support rationalization measures in existing mines and to open up new production capacities, (e.g. through EIB loans; low-interest loans from Community resources).
- A manpower policy which encourages recruitment and training of labour of high calibre through attractive remuneration and secure career prospects, with financial inducements towards mobility of labour;
- A price policy directed towards the attainment of a free market situation;
- A financial contribution from the Community designed to intensify research and development work towards the improvement of working conditions and the reduction of the impact of labour costs on production.

In view of the inflexibility of the coal industry, these measures to maintain Community coal production at least at its present level must be supported by the following measures to secure outlets for the coal so produced:

- financial intervention, should the need arise, to guarantee the competitiveness of consumers using Community coal under long-term contracts;
- administrative and financial action to promote the construction of coal-fired power stations and the consumption of coal in the electricity sector; the proposed measures concerning the consumption of oil in power stations will operate in the same direction;
- intensification of research and technological development work on coal upgrading (e.g. gasification) to ensure the availability of the appropriate technologies in the Community at the appropriate time;

The Commission might, moreover, state clearly that long-term contracts would be guaranteed even in the event of requisitioning and distribution of coal supplies under Article 59 of the ECSC Treaty.

2) Imports from non-Member countries

Since the potential market for coal in the Community exceeds the production potential - taking account of the qualities in demand - an increase in imports is to be expected insofar as the Community coal industry could not or would not supply the quantities in question under comparable conditions and insofar as these new imports meet the long-term safety criteria. With these aims in view, the conclusion of long-term contracts and the participation by Community industry in joint-venture mining operations in non-Member countries, for example, should be encouraged.

The Community market should therefore be opened to imports where they are necessary and desirable without, however, permitting such an opening to compromise the result of measures taken to maintain internal production. The Commission considers that a true joint trade policy for coal should gradually be implemented under which imports from non-Member countries should be able to develop freely, while being subject to a certain degree of monitoring.

3) Stockpiling

Furthermore, the Commission proposes a policy of coal stockpiling, the aims of which would be to stabilise Community production in the face of cyclical variations in demand and the creation of substantial stocks in producers' and major consumers' hands, to be available in the event of an interruption of coal supplies or, to some extent, of supplies of other forms of energy.

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The Commission will shortly forward to the Council a more detailed communication on coal problems and the ways and means by which it proposes to solve them.

CHAPTER IV - OIL

Several factors must be taken into account in giving the oil policy of the Community its new orientation:

- (i) Oil will for a long time yet continue to be a basic element in the supply pattern. Even if all the prerequisite conditions existed to make it possible to achieve in 1985 the aim of holding consumption at a level barely above that of 1973 (655 MT against 617 MT), demand will continue to grow appreciably during the period of time required to develop the replacement energy sources, and before the effect of such substitution measures has come to play a decisive role. In any case, with a share in the Community total energy supplies of 41% by 1985 (against 61% in 1973), oil will still constitute the main source of energy for the Community.
- (ii) The producing countries will progressively increase their control over production. An increasing proportion of world supplies now comes under the control of governments or public bodies, whose behaviour is primarily dictated by the requirements of economic development or by political choices.
- (iii) New deposits of oil will come into production, in particular in the Community or in contiguous regions (e.g. the North Sea), thus reducing the relative share of the traditional suppliers.
- (iv) The part played by the multinational oil companies is tending to undergo change, and is subject to a number of uncertainties. These undertakings will have to adapt to the new market structures which are beginning to develop. The companies will continue to have important specific functions, within a framework of equitable competition, side by side with other kinds of operator - independent operators, national undertakings set up by oil-producing countries or by consumer countries - whose influence may increase.
- (v) The oil requirements of other consumer countries will exert a growing effect on the world market; this is true both of the industrialized countries and those for whom energy is an indispensable factor for their development.

The Community must therefore arm itself with a supply policy which combines these various elements, with the aim of achieving stability and security of supplies, in the most favourable economic conditions possible.

This policy must be based on the following principles:

- (a) the Community market is a component of the world oil market; relations with the producing countries and with the other consumer countries is therefore an essential aspect of its oil policy;
- (b) by reason of the unity conferred upon it by the free circulation provided for in the Treaty, the Community market must continue to be an attractive field of activity for the operators;
- (c) the market must be characterized by a spirit of equitable competition which will allow the consumers to enjoy the most favourable long-term supply conditions, and permit the operators to develop their activities on the market with the maximum degree of flexibility compatible with the general interest;
- (d) the market must exhibit the requisite transparency to enable the national and Community authorities to satisfy themselves that it functions in accordance with the foregoing principles and with the more general aims of the energy policy.

To put such a policy into practice, the Community must have at its disposal information permitting them to discern market trends; it must, where necessary, be able to negotiate on the terms of these trends with the producing countries, to work together with other consumer countries and to hold a dialogue with the oil industry; finally, it must have available to it the necessary means for action.

The totality of these instruments will need to be applied in as pragmatic and flexible a manner as is possible and, as need may dictate, at the Community level or by the co-ordination of national actions. Some of these instruments have already been adopted. Other proposals are on the Council's table, or are attached to this present document; and others again will be submitted at a later date by the Commission.

In more precise terms, a policy of oil supply for the Community must rest on four pillars:

- (a) a joint attitude towards oil-importing and -exporting countries;
- (b) the development of secure resources;
- (c) a Community system making it possible to take appropriate measures to deal with supply difficulties;
- (d) the organization of the proper functioning of the market at Community level.

1. Relations with the producer and consumer countries

The necessity of cooperation with the consumer and the producer countries flows from the world approach to the oil problem, as sketched out above.

- (a) As far as the producer countries are concerned, the Commission's ideas on the development of these relations were submitted to the Council in January 1974: the Commission considers that these proposals should be thoroughly studied by the Council as expeditiously as possible.

Until the Council has handed down a decision, the agreements which might be concluded by certain Member States with the oil-producing countries should at the least be subject to previous consultation at Community level, as the Commission has suggested. This would allow it to be determined how these agreements could contribute to achieving a common trade policy in the oil sector as well, and to achieving stability and security of supply.

- (b) As regards co-operation with the consuming countries, especially within such international organisations as the OECD, it is equally necessary to apply fully the provisions of the Treaty, whether concerning the negotiation and adoption of eventual agreements, or the implementation of common actions by member states, duly co-ordinated on the basis of propositions which the Commission will submit to the Council to this effect. Similarly if the Community were to speak with a single voice as a rule in these bodies, all this would ensure that an indispensable European identity would be provided for.

2. The development of secure resources

A special effort must be made to encourage prospecting for and production of oil in new areas. The brunt of the financial effort will have to be borne by the oil industry; however, in certain cases the active participation

of, or an information operation by, the Community will be necessary, either as an encouragement, or to coordinate activities which, if uncoordinated, would be likely to lose their effectiveness.

(a) The "Community projects"

Twenty-five million u.a. have been allotted annually under this head in the Community budget between 1974 and 1976. In view of the interest shown in this kind of backing - an interest which has found expression in the forwarding of many projects to the Commission - this allocation may well need to be increased in future.

(b) Extension of the "Community projects" concept

Community support is at present limited to technological development in the hydrocarbons sector, but could be extended to prospecting, storage and transport operations in this sector.

While not necessarily calling for substantial funding, this extension would give a "Community incentive" to the forging of links between companies contributing to the Community's supplies.

(c) Information regarding prospecting for and production of hydrocarbons.

The Member States and the Commission should consult regularly on the situation in respect of prospecting for and exploitation of secure sources of hydrocarbons. To this end, there should be an exchange of information (the detailed machinery for this to be settled later) regarding the efforts made and results obtained in prospecting for hydrocarbons, and on the potential for prospecting and production on Community territory.

3. Measures to be taken to deal with supply difficulties

The measures required to deal with supply difficulties have a twofold purpose of maintaining free circulation within the Community and of moderating the effects of a shortfall in supplies.



Certain Community provisions in this field exist already:

Council Directives Nos 68/414/EEC of 20 January 1968<sup>1</sup> and 74/425/EEC of 19 January 1972<sup>2</sup> impose on the Member States the obligation to maintain a minimum level of stocks; Directive No 73/238/EEC<sup>3</sup> covers the measures intended to cushion the effects of supply difficulties. Recent events have demonstrated the necessity of these provisions, as well as the need to supplement them by other measures suited to the particular circumstances.

It is consequently necessary to create a framework which will make it possible to establish, in the event of supply difficulties:

- (i) an information and monitoring system covering movements of crude oil and petroleum products within the Community;
- (ii) a rapid information system, within the framework of existing or proposed machinery (Regulations 1025, 2603, 1055 and their supplements, on imports and exports; this system would, if required, allow of taking such rapid commercial-policy measures as might become necessary;
- (iii) a range of measures to reduce consumption, harmonized and balanced in accordance with the structures specific to each Member States, and not of a nature to prejudice free circulation;
- (iv) a Community system for the allocation of available supplies;
- (v) coordinated action in respect of prices.

The national or Community measures required would in essence be administered at Member State level, but with the closest concertation possible, and conforming to overall policy guidelines established at the Community level on the basis of Commission proposals. They must be capable of rapid implementation with a maximum of flexibility, taking account of decisions taken at the level of the OECD.

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<sup>1</sup>OJ No L 308, 23 December 1968.

<sup>2</sup>OJ No L 291, 28 December 1972.

<sup>3</sup>OJ No L 228, 16 August 1973.

4. The organization at Community level of the proper functioning of the market

Being - like the free circulation of goods - the indispensable prerequisite for a Community oil supply policy, the organization at Community level of a smoothly-functioning market must be based on an adequate, joint supply of information, on a wide-ranging and flexible system of concertation, and - where necessary - on the possession of means of action.

A. An adequate, joint supply of information

The supply of information is essential to achieve transparency. Moreover, it must be acquired in a manner such as to ensure a sufficient degree of standardization. On the other hand, the collecting of the information must be kept flexible: according to circumstances, national or overall figures may be sufficient, or it may happen that data coming directly from the undertakings are passed on via the Member States, being handled with appropriate confidentiality.

As a first step at least, it would appear to be adequate if this joint, homogeneous information covers imports and exports, investments, and the cost and price of petroleum products.

(1) Imports and exports of hydrocarbons

Council Regulation 1055 adopted in May 1972 allows of a sound quantitative picture of both the actual and estimated imports of crude oil into the Community.

However, Regulation 1055 must be extended to cover petroleum products, to obtain an idea of the trends on the oil market and in particular of the creation of major refining capacities outside the consumer countries. The Commission submitted an appropriate proposal to the Council on 5 August 1973: the Commission's view is that this proposal should be adopted as early as possible.

Similarly, for reasons of homogeneity and particularly in view of the prospects of production on Community territory, it is necessary to know the actual and estimated exports from the Community to non-member countries. A proposal in this sense, additionally covering natural gas, was put to the Council in August 1973; a reminder was given in January 1974. Here again, the Commission considers that the Council should approve this text as soon as possible.

(2) Investments

It is equally indispensable to have a good knowledge of the circumstances governing the execution and planning of investment projects in the oil sector within the Community. This the Council recognized by its approval of Regulation 1056 in May 1972. The Commission does not consider that the present situation calls for the provisions of that Regulation to be strengthened.

(3) Cost and price of oil products

This is a vital problem, which has increased in importance in recent months; it arises, in respect of price and cost formation, both before the products enter the Community and within the Community itself.

Consequently, the Commission holds the view that the Community should have available detailed, regular information to a standardized pattern, showing the various price and cost elements (fob and cif) for crude oil and oil products imported into the Community. It might then be possible to envisage that, starting from this basic information, there would be fixed - quarterly, for the Community and/or for each Member State - an indicator expressing the average level of the cost of supplies.

Similarly, the Commission considers that the Community should have a detailed analysis of the costs of refining and distribution operations in each Member State.

All this would improve the transparency of the costs and prices for petroleum products. The Commission has already carried out studies in this field. Before placing a formal proposal before the Council, the Commission wishes to examine the matter in greater detail in the Energy Committee, possibly with the assistance of independent experts or representatives of the industry, to determine the technical means of obtaining the desired cost and price transparency.

B. A wide-ranging and flexible system of concertation

The Community must obtain its oil supplies under conditions which are in the interest of the consumer and which respect the rules for the free circulation of goods and services laid down in the Treaty of Rome.

This is the fundamental responsibility of the Community and national authorities; this responsibility is, it is true, carried out by means of the decisions taken by the Council of the Communities and by the Member

States, but also by means of continuous concertation, as exemplified by the Committee of Energy.

It is also the responsibility of the companies which supply the Community. As the Commission has repeatedly declared, it is consequently appropriate to associate the directors of these companies with the deliberations of the public authorities, by means of concertation. The purpose is, by initiating a dialogue which will provide the conditions for the smooth evolution of the views of all parties concerned, to preserve - and to bring into play gradually - a pattern of behaviour which, while respecting the Treaty rules, takes due account of the public interest and the legitimate aims of the industry.

It would seem that, to ensure that this concertation fully meets expectations, the fields covered should not be restricted initially, and that the system should be kept extremely flexible.

The Commission does not therefore propose to surround the system of concertation with a rigid legal framework - at least in the first stage - since this system must be characterized by a state of mind such that a genuine Community oil policy can develop, gradually and in a pragmatic manner. The only remark the Commission wishes to add - and this does not exclude other, complementary arrangements - is that the concertation in view should take place in the Energy Committee.

This concertation procedure could cover the following main points:

(1) In respect of supplies

- the annual forecasts of imports (Regulation 1055) and their progressive fulfilment;
- the five-year importing plans (own resources - long-term supply contracts), or the supply prospects in general;
- the financial terms of supply;
- the manner in which undertakings propose to deal with possible reductions in or interruptions of supplies;
- all means of increasing the security of supplies.

(2) In respect of activities in the Community market

- the investment forecasts and their progressive fulfilment (Regulation 1056);
- the pattern of distribution over the various undertakings of the available quantities of crude oil and oil products;

- the technical and financial potential of the undertakings and the essential elements of their administration;
- all methods capable of improving equitable competition.

C. The means of action

In respect of oil, the Commission has no intention of creating an unnecessary proliferation of means of action. To do so might carry the risk of making what is essentially a mobile situation much too rigid, of depriving the economic operators of the Community of part of their initiative and capacity for adaptation, and of establishing centralized machinery which would perhaps be irreconcilable with the aims of modern economic management.

Nevertheless, a Community oil policy will require the support of a certain number of means of action.

(1) As regards compliance with the rules of the Treaty and Community provisions in all matters relating to competition and, in particular, the problems entailed by industrial concentration.

(2) As regards commercial policy

A common commercial policy is an obligation laid down in the Treaty of Rome. The Commission proposes that imports and exports of hydrocarbons be covered by permanent surveillance arrangements (all licences granted), based on regulations 1025 and 2603, to ensure rapid information flow. Moreover this system would permit, in periods of tension or crisis, the implementation of safeguarding measures decided upon by Community procedures.

(3) As regards the price of petroleum products

One of the major difficulties affecting the proper functioning of the market and, in particular, the free movement of goods is not so much the differences between the price structures applied by each Member State as the differences between the levels of these prices.

For this reason the Commission believes that the objective to be pursued in this connection is a greater degree of uniformity (which does not imply standard prices) in these price levels rather than in the price structures. This objective can only be attained by successive stages and to a reasonable timetable. Consequently, the first step would be to encourage consultations between the Member States and the Commission before any fresh decision is taken to alter prices; the second step would be to attempt to harmonize progressively the criteria underlying the price structures applied to determine the level of prices; the final step would be to set up a Community system based on transparency and publication of prices.

The Commission holds that the undertakings should be allowed to fix their prices freely under these arrangements. The national and Community authorities would be empowered to intervene only in the event of market pressures which might result in movements of a speculative nature or if the policy pursued is likely to compromise certain of the Community's energy policy objectives.

This Community price system based on a detailed knowledge of the cost and price elements provided by the information network suggested by the Commission (see 4 A.3) would oblige the undertakings to publish schedules of selling prices for each of the major petroleum products and for the major centres of consumption.

In this respect too, the Commission believes that the technical details of such a system will require a considerable amount of reflection to make it equitable, simple and practicable. As for the cost and price elements in respect of petroleum products, the Commission is waiting for the opinion of the Committee on Energy and that of qualified experts, before making any proposals to the Council.

Chapter V. Natural gas

Natural gas accounted for 13% of the Community's energy supplies in 1973 and could be covering almost a quarter of its energy requirements in 1985.

This doubling of the share taken by natural gas in relative terms, should itself be based on the approximate doubling of present Community output and on recourse to sources of imports compatible with the aims of security of supplies. Such an objective is ambitious but not unreasonable. Generally speaking, it assumes that the problems on natural gas - whatever may be its specific nature - should be approached with the same thinking as the oil problem.

In the immediate future three aspects require a Community policy:

- the growth in available supplies of natural gas;
- the strengthening and increased integration of the transport and storage systems;
- the optimum economic use of natural gas.

A. To increase the available supplies of natural gas it will be necessary:

a) to intensify natural-gas prospecting in the Community.

This implies:

- the provision of precise information presented in a standard pattern to the public authorities regarding reserves of gas existing in the Community and the prospects of working and developing them;
- the possibility of taking measures (administrative and/or fiscal) to encourage prospecting for new deposits, and of granting financial aid e.g. by means of the "Community projects" system, to overcome the essentially technical problems arising in connection with production and transport or to assist the execution of major projects in the field of international or intercontinental transport;

b) to encourage the conclusion of new contracts or the extension of existing contracts for the import of natural gas with Third Countries, eventually through the conclusion of Community agreements for trade cooperation.

Even if such imports entail a degree of dependence on outside sources of supply, they may nevertheless be more secure than oil imports, in that they further diversify the origin of supplies and their conditions of supply offer particular safeguards.

- B. The enlargement and integration of the transport and storage system will make it possible to increase safety in transport natural gas, to achieve a better coverage of the seasonal variations in the increasing demand in the various regions supplied and to increase the security of supply as a protection against the interruption of deliveries for technical or political reasons. To this end, a Community regulation governing the gas pipelines could improve the economic conditions of the transport system, but the need to increase considerably investment in transport and storage facilities will require special attention.
- C. The optimum economic use of natural gas calls for a certain degree of regulation to its use; the mechanism of the normal market forces is not, by itself, adequate for the purpose.

To this end, the use of natural gas in new thermal power stations should be made subject to arrangements requiring prior authorization in order to keep fuel for applications where it is used to better advantage. Likewise its consumption in existing stations should be progressively reduced. Finally it will be necessary to promote the general introduction of contracts which can be interrupted in respect of large industrial consumers wishing to run on natural gas.

Finally, a harmonized policy of prices and price scales at Community level, of a sufficient degree of "transparency", should serve to ensure that natural gas is utilized in conformity with the aims of the Community energy policy.

Such a policy, necessary in the medium and the long term, would moreover prepare for the long-term energy supply structure: the creation of an appropriate infrastructure which, by making the best of gas resources, encourages the eventual introduction of synthetic "natural" gas and hydrogen into the Community's energy balance.



Chapter VI - Conclusions

Two fundamental problems are posed when following the guidelines now established for each energy source, under the umbrella of the supply objectives set out in Chapter I: that of having available appropriate policy instruments, and that of establishing relationships between prices in conformity with these guidelines.

A. Implementing the objectives

1. To fix ambitious objectives for the energy supply of the Community such as have been outlined above for the period up to 1985 and beyond, requires that the action be taken, as was set out in detail for each energy source above. Generally speaking, moreover, the Community cannot seriously expect to achieve such objectives if it does not possess instruments of persuasion or support operating at a Community level, and following an overall strategy.

The development of the existing energy sources and the introduction of new sources, to the extent that they reinforce the security of supply, will require considerable efforts. In certain fields, in which the whole of the Community has an interest, the scale of the operation or the risks involved could require Community intervention which following a consistent policy, would thus be much more effective than scattered individual interventions.

2. This approach to a strategy implies a necessity for action throughout the energy sector. Such action could for example involve, the prospecting for, the exploitation of and marketing of new resources located inside or outside the Community, the participation of Community firms in joint ventures, the development of the necessary infrastructure (transport, stocking facilities), and research and development, either into new ways of producing energy or the more effective use of energy, in the context of the need to protect the environment. There must be no overlapping with action arising either from Community law, or the implementation of other common policies.

3. The requisite support towards achieving all these tasks could be assigned to a Community agency having a legal personality and financial autonomy. This organisation would operate within the framework of the policies defined by the Community institutions, with the necessary financial means. It would be under the control of the Commission and would be assisted by a consultative committee composed of the representatives of the Member States and the interested parties (industry, workers, users and consumers).

#### B. Prices

Even if the risk is minimal, reoccurrence of divergent, disorganised price movements arising from instability of the market, cannot be tolerated. They could hinder the implementation of the objectives of the energy policy or compromise economic viability of considerable investments made to achieve the objectives; they might even exert these two effects simultaneously. Another possible consequence, which the Community cannot allow would be the appearance of more or less rigid barriers between the markets of the different Member States.

It is therefore necessary to initiate a searching and systematic Community study to find joint approaches to the question of energy prices in general, on the relationships between the prices for different types of energy, and, of course, on the role and the use of taxation policy in the energy field. This problem is fundamental: it represents one of the pivotal issues for a Community plan for energy supply.

PROPOSAL FOR A COUNCIL DIRECTIVE  
on limiting the use of naturel gas in  
power stations

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(presented by the Commission to the Council)

EXPLANATORY MEMORANDUM

1. The use of natural gas in power stations in the Community began when large deposits of natural gas were discovered in Europe.
2. The consumption of natural gas by power stations is only justified when for economic and technical reasons it cannot be used more profitably elsewhere, or when there is a grave supply crisis in other fuels which requires it.
3. A ramified network for the transport and distribution of natural gas has now been constructed in the Member States of the Community and will be further developed in the future.
4. The technical and economic advantages and the cleanness of natural gas have resulted over recent years in a constant increase in demand. The buyers' market has become a sellers' market, and demand now exceeds supply capacity.
5. In the short and medium term, limitation of the consumption of natural gas in power stations can make additional gas available to satisfy the excess demand elsewhere.
6. The natural gas thus made available can be used in technically and economically better ways in industry and in the home ("premium market" \*)

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(\*) The "premium market" is that which provides for the optimum use of natural gas for certain consumers, either because it is virtually irreplaceable by other fuels (for example, in the glass industry) or because it is more convenient than other fuels (domestic uses).

7. Frequently and in particular in multi-fuel power stations, natural gas can be replaced by other fuels without any large-scale changes being needed.
8. For these reasons, new contracts for the supply of natural gas to power stations must receive prior authorization by the Member States, which can then influence the award of contracts in such a way as to ensure that this source of energy is put to the most profitable use.
9. As regards contracts for the supply of natural gas which have already been concluded with power stations, the Member States should encourage the power station operators to replace natural gas, where possible, by other sources of energy so that natural gas can be put to better uses elsewhere. This does not exclude that these power stations should remain at least bivalent, so that natural gas can be used if there should be a grave supply crisis in other fuels.
10. The Member States shall supply the Commission with the necessary information on the application of this Directive so that the Commission can, if necessary, take steps to harmonize the authorization procedure in all the Member states.

PROPOSAL FOR A COUNCIL DIRECTIVE  
ON LIMITING THE USE OF NATURAL GAS IN POWER STATIONS

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THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 103 (4) thereof;

Having regard to the proposal from the Commission;

Having regard to the Opinion of the European Parliament;

Having regard to the Opinion of the Economic and Social Committee;

Whereas the establishment of a Community energy policy is one of the objectives which the Communities have set themselves;

Whereas the Community's security of energy supplies requires the development of all its sources of energy;

Whereas natural gas is one of these Community sources of energy; whereas its quantity is limited

Whereas natural gas should be reserved in the first instance for those applications for which it can be most profitably used;

Whereas natural gas has great advantages for certain specific uses;

Whereas, consequently, natural gas should be transformed into electrical energy only where it cannot be used for other purposes, where there is a technical or economic necessity;

Whereas the main economic and technical reasons for the use of natural gas in power stations are the following :

- the quantities of natural gas available cannot for the moment be disposed of in any other way owing to the absence of a suitable transport and distribution network;
- the quantities of natural gas available cannot be disposed of on the "premium market" with the necessary regularity on account of seasonal variations in sales which necessitate the conclusion of interruptible contracts;
- the available means of transport cannot be exclusively used for supplying the "premium market" while a natural gas distribution network is being constructed;
- as no other fuels are available.

Whereas special problems concerning the protection of the environment can likewise necessitate, in certain cases, the use of natural gas in power stations;

Whereas it is advisable to this end to make the conclusion of contracts for the supply of natural gas to power stations subject to government authorisation;

Whereas it is necessary, in the interests of the best allocation of resources and the security of supplies to prevent the use of natural gas becoming the subject of differing provisions in the various Member States;

HAS ADOPTED THIS DIRECTIVE :

Article 1

The conclusion of new contracts and the extension of existing contracts for the supply of natural gas to power stations must be made subject to prior authorization by the authorities of the Member States responsible for these power stations.

This authorization may only be given for contracts which are interruptible and where the following conditions apply :

- the use of natural gas in power stations is necessary for economic technical reasons;
- the natural gas cannot be put to a more profitable use;
- special reasons for the protection of the environment require its use.

Article 2

Where existing contracts for the supply of natural gas do not fulfil the conditions of Article 1 (2), Member States shall encourage the cancellation of such contracts by mutual agreement between the contracting parties.

Article 3

Any authorization granted by a Member State pursuant to Article 1 and any measure taken pursuant to Article 2 shall be notified to the Commission accompanied by a detailed statement of the reasons justifying the action taken.

Article 4

Member States shall put into force, not later than 31 December 1974, the laws, regulations and administrative provisions needed in order to comply with this Directive.

Article 5

This Directive is addressed to the Member States.



PROPOSAL FOR A COUNCIL DIRECTIVE  
CONCERNING THE RESTRICTION OF THE USE OF PETROLEUM  
PRODUCTS IN POWER STATIONS

(presented by the Commission to the Council)

EXPLANATORY MEMORANDUM

The part of electrical energy produced in the Community countries from petroleum products rose from near 10% in 1962 to about 32% in 1972. In this same year several countries depended on liquid fuels for more than half of their electricity production. The supply of electricity for most of the Member countries depends, therefore, for an increasing part on the availability of petroleum products.

As the increase in the security of supply is a priority objective of the Community energy policy, appropriate measures must be taken to arrest and to reverse this development.

Nuclear energy can now ensure in base load and mid-merit power stations the production of electricity under favourable economic conditions as well as the security of supply. For power stations with a lower annual utilization factor, hard coal could provide an important contribution. For many of the new power stations it will therefore be possible, by the use of nuclear energy and hard coal, to avoid the use of petroleum products. In order to strengthen the security of supply the maximum use of these two sources of energy should be made.

Thus, the attached proposal for a directive provides for consent by the authorities of the Member States prior to the construction of new power stations which are intended to burn liquid fuels. As a rule, such authorization can only be given if the use of other fuels cannot be considered for economic or technical reasons.

Thus, the construction of new peak energy power stations burning petroleum products (e.g. gas turbine power stations) may in some cases be appropriate. The fuel consumption of this type of power station is, because of its low annual utilization factor, relatively restricted.

Some solid fuels, which are not easily inflammable and have a low heating value need the addition of liquid (or gaseous) fuels to ignite and maintain the combustion. In so far as the energy contribution of the oil fuels remains small, this type of power station may also be authorized.

Lastly, certain refining residues that may not receive a better valorization in other applications, may continue to be used as fuel in the power stations.

In cases where the construction of an oil-fired power station is indicated for technical and economic reasons, it is often possible to improve the security of fuel supply to the power station by equipping it with dual-firing boilers, using coal as the substitute fuel. The authorities of member countries will verify in each case if the power station can be made dual-firing (oil/coal) and they could possibly make dual-firing a condition of authorization.

The Member States will furnish to the Commission the necessary information concerning the implementing of this directive so that the Commission can possibly act in the direction of a harmonization of the authorization procedure in the Member States.

PROPOSAL FOR A COUNCIL DIRECTIVE  
CONCERNING THE RESTRICTION OF THE USE OF PETROLEUM  
PRODUCTS IN POWER STATIONS

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty instituting the European Economic Community, and in particular Article 103, paragraph 4 thereof.

Having regard to the proposal from the Commission,

Having regard to the Opinion of the European Parliament,

Having regard to the Opinion of the Economic and Social Committee,

Whereas the implementation of a Community energy policy is one of the objectives that the Communities have set themselves, and whereas it is the responsibility of the Commission to propose the measures to this end,

Whereas the security of supply is a priority objective for the Community energy policy,

Whereas electricity is a form of energy vital to modern society, and whereas its contribution plays an increasing part in covering the Community's total energy requirements,

Whereas the security of supply of electricity in the Member countries of the Community can be improved by limiting the use of petroleum products in the power stations,

Whereas electricity can be produced under economic conditions from different sources of primary energy,

Whereas conventional power stations can be equipped with multi-firing boilers, using two or more fuels, among them coal,

HAS ADOPTED THE PRESENT DIRECTIVE:

Article 1

The construction of new power stations using oil fuels as well as the conversion of existing power stations for burning such fuels must be submitted for prior consent by the authorities of the Member States in which the power stations are located.

Authorization can be granted only in the following cases:

- if the power station has a small capacity and is intended exclusively for the production of peak energy;
- if the petroleum products serve only to ignite and maintain the combustion of other products and if their total energy contribution remains small;
- if the fuel is a residual product that may not receive a better valorization in other applications;
- if the use of other fuels cannot be considered for economic or technical reasons.

Before granting an authorization in the above cases, the member countries will confirm whether it is necessary or not, for reasons of security of fuel supply, to equip the power station for dual-firing, allowing the use of coal as the substitute fuel. The authorities of member countries could possibly make authorization conditional upon the installation of such equipment.

Article 2

Any authorization granted by a Member State implementing Article 1 shall be communicated to the Commission, accompanied by a full report of the reasons justifying it.

Article 3

The Member States shall take appropriate measures, by the latest 31 December 1974, by way of law, regulation or administrative action, in order to comply with this directive and shall inform the Commission thereof.

Article 4

The present Directive is addressed to Member States.

Done at Brussels,

By the Council

The President

PROPOSAL FOR A REGULATION (EEC) OF THE COUNCIL  
CONCERNING THE COMMON RULES FOR IMPORTS AND EXPORTS OF HYDROCARBONS

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(presented by the Commission to the Council)

EXPLANATORY MEMORANDUM

1. The supply policy as outlined in the document "Towards a new strategy of energy policy" provides that forecasts communicated by the undertakings one year in advance will be used as a basis for preparing a supply plan for the whole of the Community in accordance with the objectives of energy policy.
2. In order to ensure that this supply plan is implemented, the Commission proposes that crude oil and refined products be brought under the existing common rules for imports and exports within the framework of the common commercial policy <sup>(1)</sup>, subject to a supervisory system, i.e. the automatic award of an import or export certificate.
3. Information concerning imports and exports carried out is centralized at Community level pursuant to Regulation (EEC) No. 1055/72 concerning energy policy already adopted and its proposed extension to cover exports according to which undertakings must communicate the quantities actually imported and exported over each period of six months. If the Commission considers that this information suffices, it may forgo the information provided for in the Regulations governing commercial policy.
4. The consultations provided for in these Regulations will take place in the Energy Committee which can assess them in the light of the objectives of the energy policy with the assistance of experts in the field of commercial policy.

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(1) - Regulation (EEC) No. 1025/70 of the Council of 25 May, 1970  
establishing common rules for imports from non-member countries  
- Regulation (EEC) No. 109/70 of the Council of 19 December 1969  
establishing common rules for imports from state-trading countries  
- Regulation (EEC) No. 2603/69 of the Council of 20 December 1969  
establishing common rules for exports



5. The safeguard measures provided for in the abovementioned regulations could be applied, where necessary, if the security of supplies to the Community were threatened by conditions affecting the development of trade with the non-member countries.

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PROPOSAL FOR A REGULATION (EEC) OF THE  
COUNCIL CONCERNING THE COMMON RULES FOR  
IMPORTS AND EXPORTS OF HYDROCARBONS

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THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community and, in particular, Article 113 thereof;

Having regard to Regulation (EEC) No. 1025/70 <sup>(1)</sup> of the Council of 25 May, 1970 establishing common rules for imports from non-member countries and, in particular, Articles 2 and 7 <sup>(2)</sup> thereof;

Having regard to Regulation (EEC) no. 109/70 <sup>(2)</sup> of the Council of 19 December, 1969, establishing common rules for imports from state-trading countries and, in particular Article 2 thereof;

Having regard to Regulation (EEC) No. 2603/69 <sup>(3)</sup> of the Council of 20th December 1969 establishing common rules for exports and, in particular, Article 10 thereof;

Having regard to the proposal from the Commission;

Having regard to the Opinion of the European Parliament;

Whereas the introduction of a common energy policy is one of the objectives of the Communities,

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(1) O.J. No. L 124, 8.6.1970, p.6

(2) O.J. No. L 19, 26.1.1970, p.1

(3) O.J. No. L 324, 27.12.1969, p.25

Whereas the system of imports and exports of hydrocarbons must be harmonized in order to implement the common commercial policy and the common energy policy;

Whereas it is appropriate that the Energy Committee set up by the Council Decision of 30 January, 1974, should carry out the duties of the Advisory Committees provided for in the abovementioned Regulations, as regards hydrocarbons;

Whereas it is appropriate to subject imports and exports of hydrocarbons, because of their importance in terms of the Community's energy supplies, to the Community supervision in the form of the automatic award of import or export certificates;

Whereas Regulation (EEC) No. 1055/72 of the Council normally ensures the centralization of information concerning imports of hydrocarbons in each six-month period and forecasts of imports for the following year;

Whereas it is essential to extend the field of application of the supervisory and safeguard measures provided for by Regulations (EEC) Nos. 1025/70 , 109/70 and 2603/69 if the security of supplies to the Community are threatened by conditons affecting the development of trade with the non-member countries;

HAS ADOPTED THIS REGULATION:

Article 1

The common rules for imports and exports shall be applied to hydrocarbons in accordance with the following procedures.

Article 2

1. The products listed in the Annex to this Regulation shall be included in the lists in Annex I to Regulation (EEC) No. 1025/70 and in the Annex to Regulation (EEC) No. 109/70.
2. The products falling under sub-headings 27.09 and 27.10 of the CCT shall be deleted from the list annexed to Regulation (EEC) No. 2603/69.

Article 3

The Energy Committee set up by the Council Decision of 30 January 1974 shall carry out the duties of the Committees provided for in the Regulations referred to in Article 2, as regards the products listed in the Annex to this Regulation.

Article 4

1. Imports and exports of the products listed in the Annex shall be subject to the Community supervision provided for in the Regulations referred to in Article 2.
2. The Commission may forgo the information that the Member States must furnish for the purposes of Community supervision in so far as the Commission considers that the information received from the Member States pursuant to Regulation (EEC) No. 1055/72<sup>(1)</sup>.....and No. .... suffices.

Article 5

The safeguard measures provided for by the Regulations referred to in Article 2 may also be taken in respect of the products listed in the Annex to this Regulation if they are justified on the grounds of ensuring the security of energy supplies to the Community.

Article 6

This Regulation shall enter into force on .....

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels,...

For the Council

The President

ANNEX

- 27.09 Petroleum oils and oils obtained from bituminous minerals, crude
  
- 27.10 Petroleum oils and oils obtained from bituminous minerals, other than crude; preparations not elsewhere specified or included, containing not less than 70% by weight of petroleum oils or of oils obtained from bituminous minerals, these oils being the basic constituents of the preparations;
  
- 27.11 Petroleum gases and other gaseous hydrocarbons.

Communication from the Commission to the Council  
regarding

RATIONAL UTILISATION OF ENERGY

1. Nature of the Problem

Awareness of the shortage of raw materials, including certain energy resources, and the often-abused utilisation thereof, has led the Commission to examine the problem of the Rational Utilisation of Energy during the past two years (see CEC "Necessary Progress in Community Energy Policy of 13th October, 1972).

By the term "more rational utilisation of energy", the Commission understands the reduction of the energy input for the same level of output of useful energy. Thus the reduction of the utilisation of useful energy is not intended; this energy being necessary for economic and social development. On the contrary, our concern is with the better use of available energy.

The problem should be treated in a pragmatic fashion and by a dual approach. On the one hand, it concerns the increase in the specific efficiency of energy in the known technologies; improvement of the procedures in use; and modification of the consumption structure. On the other hand, the wasteful consumption of energy should be limited: by a better control of the procedures of utilisation.

New procedures or structures reducing energy losses inherent in technologies applied at the present time (Carnot cycle; Motors Otto/Diesel) should be developed: this is the field of Research and Development, which is dealt with by the appropriate body (CREST).

The problem of the Rational Utilisation of Energy insofar as it is defined does not aim at a more adequate allotment of energy resources or their valorisation on the spot, these being outside the economic-technological framework of the increase of energy efficiency in the consumption of fuels.

2. Aims of a policy on the Rational Utilisation of Energy

Although energy resources of mineral origin are limited, in their different ways, their rational use is necessary, in a general manner, by virtue of our responsibility with regard to the supply of raw materials for future generations and especially from the point of view of world solidarity, and the protection of the environment.

On the other hand, the price mechanism, which is of particular importance in the short term, and the economic and political conditions in this field, are clearly insufficient, and even opposed to the realisation of such a policy. During a period of low priced energy, as in the 1960's, energy consumption may be stimulated to the detriment of its rational use, in spite of the limitation of resources. It is not always obvious in a period of high-priced energy that all consumers are able to adapt to new market conditions ( for example, lack of sufficient information, rigidity of structures etc.)

The public authorities of Member States should therefore elaborate and implement measures with a view to attaining a more rational utilisation of energy, whether by creating a framework of rules, or even by imposing technical norms. If each Member State ( in certain cases even regions having autonomous power in the matter) took disparate measures, their existence would inevitably create separate markets and distortions which are contrary in principle to the proper functioning of the Common Market and are even prejudiced against it. Moreover, such disparities also risk becoming an obstacle to the realisation of joint action in the different fields such as transport, research, environment, or regional policies.

For these reasons, it is imperative for the public authorities of the Member States to join in their efforts to reach a harmonisation at Community level whenever projected measures could prejudice the free movement of goods or the competition between enterprises in the Common Market. Only in this way will an effort to make the best use of energy resources, which are at the disposal of the Community, really bear fruit.



3. Objectives of a Rational Utilisation of Energy Policy

The long term objective to be pursued by a Rational Utilisation of Energy policy is the slowing down of the rate of growth of demand for energy resources and through that the rate of importations of these resources, which would enable an improvement in the security of supply of the Community.

This objective, expressed in figures and related to a determined period, would mean a minimum reduction of 10% of the expected gross demand in 1985, other things being equal. Thus, using an hypothesis of a Community consumption of 2,500 million tce, a policy for the more rational utilisation of energy would enable us to satisfy, to the same degree, energy demand, while saving 250 million tce approximately.

This saving would be the result of joint action at Community and national levels in respect of the rational utilisation of energy field and the price mechanism. For example in 1985, the saving would be almost equal to the contribution of nuclear electricity or of coal. If the fact that the results would be obtained almost exclusively in the final consumption of energy were taken into account, the energy efficiency of transformation being hardly capable of improvement in such a short period for the reasons indicated in paragraph 1, this objective is expressed by an economy of 18% to 19% of final energy consumption.

The savings by the year 1985 will, however, represent only a phase, because the rational utilisation process, once in operation, will show results on an increasing scale, and in the last 15 years of the century the savings should be doubled.

4. Instruments of a Community Policy

One may distinguish two types of action :

- information, with a view to interesting the large mass of energy consumers as well as the producers and distributors and to prepare and develop the measures of the public authorities; exchange of information between the interested parties, notably between the services concerned of the public authorities of the Member States;
- direct actions of the public authorities, covering the forms of aid or of constraint (promotion of the application of voluntary measures notably for existing buildings, special loans; tax facilities, creation of obligatory norms etc.

In other respects, R.& D. is a particularly important means of action. Being covered in a specific manner by an appropriate body (CREST) will not be taken into consideration in this document.

The choice between different measures depends on the following criteria.

- the importance of the attainable economy (reduction of losses) relation to its cost (investments to be undertaken);
- the speed of the implementation of the measures;
- the degree of certainty as to the result;
- the nature of the method to be used (flexibility, possibility control etc.)

The fields which a Community programme should cover first should be:

- domestic, commercial and administration sectors: equipment of existing buildings, and construction of new buildings to minimise heat losses, notably by better insulation; better efficiency of appliances (including burners); heat recovery;
- industrial sector: combustion control, heat recovery; recycling materials; steady-state processes; life of products; energy content of products.
- transport sector: existing means of transport (cubic capacity energy performance, vaporisation control etc. ); transport structure (among others, electric traction, town planning);
- energy sector: recovery of residual heat, combined production powers;

5. The achievement of Community Policy

A first stage for establishing a policy for the rational use of energy consists of :

- defining priorities in each sector so as to permit an action programme to be started;
- indicating exactly the methods and means of action and the time scale within which they should be developed and put into effect;
- calculating estimated economic balances showing the effects of the proposed actions.

The Energy Committee, at the Commission's insistence, has set up a group of national experts responsible for helping the Commission with this first stage.

Based on the conclusions of this group of experts, which should be ready for presentation by the end of July, the Commission will subsequently formulate its proposals for transmission to the Council.