COMMISSION OF THE EUROPEAN COMMUNITIES

COM(82) 31 final

Brussels, 10th February 1982

THE ROLE FOR COAL IN COMMUNITY ENERGY STRATEGY

(Commission communication to the Council)

COMMISSION DES COMMUNAUTES EUROPEENNES

CORRIGENDUM

(valable pour toutes
les versions linguistiques)

COM(82) 31 final/2

Bruxelles, le 18 mars 1982

ROLE DU CHARBON DANS UNE STRATEGIE ENERGETIQUE COMMUNAUTAIRE

(Communication de la Commission au Conseil)

CORRIGENDUM

Doc. COM (82) 31

Corrigendum to the Commission document (82) 31 final (The role for coal in Community energy strategy).

In annex 4 the original figures for Germany must be replaced by the following figures : 208.- DM/t, 81.48 ECU/t, 95.76 $/t.

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Korrigendum zum Kommissionsdokument Nr. (82) 31 endg. (Die Rolle der Kohle in der Energiestrategie der Gemeinschaft).

Im Anhang 4 sind die ursprünglichen Zahlen für die Bundesrepublik Deutschland durch die folgenden Zahlen zu ersetzen : 208,- DM/t, 81,48 ECU/t, 95,76 $/t.

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Corrigendum au document de la Commission no (82) 31 final (Rôle du charbon dans une stratégie énergétique communautaire).

Dans l'annexe 4 il faut remplacer les chiffres initiaux pour la République fédérale d'Allemagne par les chiffres suivants : 208,- DM/t, 81,48 ECU/t, 95,76 $/t.

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Rettelse til Kommissionsdokument (82) 31 endel. (Kuls betydning i Fællesskabets energistrategi).

I bilag 4 skal de oprindelig tal for Tyskland erstattes med følgende tal: 208,- DM/t, 81,48 ECU/t, 95,76 $/t.

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Corrigendum al documento della Commissione COM (82) 31 def. (Il carbone nella strategia energetica della Comunità).

All'allegato 4, i dati concernenti la Germania vanno così modificati nell'ordine: DM/t 208,0, ECU/t 81,48, USD/t 95,76.

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Corrigendum bij het document van de Commissie nr. (82) 31 def. (De rol van steenkool in de energiestrategie van de Gemeenschap).

In bijlage 4 moeten de oorspronkelijke cijfers voor de Duitse Bondsrepubliek vervangen worden door de volgende cijfers : 208,- DM/t, 81,48 ECU/t, 95,76 $/t.

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COM 5-1

THE ROLE FOR COAL IN COMMUNITY ENERGY STRATEGY

C O N T E N T S

THE ROLE FOR COAL IN COMMUNITY ENERGY STRATEGY

INTRODUCTION

1. In its Communication to the Council on the Development of an Energy Strategy for the Community[1] the Commission emphasized the need to reduce the Community's dependence on oil by positive measures to encourage both more rational use of energy and more diversified energy supplies.

2. Coal has a very important role to play in this context. The world's reserves are large, on some estimates four times those of oil and gas combined. Together with nuclear energy coal is the main substitute for oil in electricity-generation; and together with natural gas the principal alternative to oil in heat-raising elsewhere in industry. Moreover its price has become increasingly attractive in relation to that of its competitors, and especially oil.

3. And yet the use of coal within the Community has not expanded significantly since the first oil crisis of 1973/74. In 1980 the Community consumed 314 m tonnes compared with 310 m tonnes in 1973[2]. Some of the reasons for the lack of progress lie in the intrinsic nature of coal itself. Weight for weight its calorific value is only 50-75% of that of oil; it is more difficult to handle and transport; the coal "chain" from mining to delivery to the consumer is long; production, storage and use raise potential environmental problems. But other explanations for hesitation must be sought in the costs and risks of conversion; uncertainty about future price developments; doubts about availability and security of supplies; and a more general uncertainty about the importance effectively given to coal in the energy policies of Member States.

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[1] COM(81)540 final.

[2] Over the same period, however, world coal output rose from 2.2 bn tonnes to 2.8 bn tonnes.

4. The Commission is in no doubt about the need to overcome the hesitations. Given the uncertainties attached to the future of nuclear power in the Community (on which the Commission is transmitting a separate Communication to the Council), and the constraints on the contribution of natural gas, the Community's markets for coal must be opened up more quickly. But the hesitations will not be overcome without further positive steps by Member States and by the Community itself. This paper examines what needs to be done both to overcome the main constraints on the side of demand and to ensure secure and economic supplies to meet that demand. In its suggestions for the encouragement of investment the paper complements the Commission's separate Communication on Investment in the Rational Use of Energy.

5. Except where otherwise stated, lignite and peat are excluded from the analysis and proposals outlined below, which concentrate on hard coal and especially steam coal. The specific problems of coking coal, tied as they are to the future of the steel industry, are not considered in detail. The Commission, however, draws attention to the potentially serious shortage of coke-oven capacity in the Community during this decade. Much Community capacity is old and investment rates are low. If likely future demand is to be met (Table 1, paragraph 6 below), investment of some 180-200 MECUs a year will be required between now and 1990, compared with actual expenditure of 110 MECUs in 1981.

I - COAL DEMAND

(i) PROSPECTS IN THE ABSENCE OF POLICY CHANGES

6. In 1980 the Commission suggested as a central case that the Community's demand for coal could rise from its then level of a little over 300 mt to 370 mt[1] in 1990 and 580 mt in 2000. At that time equally optimistic forecasts were being made for the industrialised world as a whole, on the assumption of a rapid return to a sustained rate of economic growth

[1] Figures throughout the paper are given in coal tonnes, without adjustment for the calorific values of different coals making up the balance.

of 3-3.5% a year. Two years later such forecasts seem unrealistically high. In common with other forecasters the Commission has therefore revised downwards its view of likely market developments in relation to a scenario for economic growth consistent with the assumptions underlying the Community's Fifth Medium-Term Economic Policy Programme[1]. Table 1 below gives the likely upper limits to Community coal demand in 1990 and 2000 and a broad breakdown by demand sector, on the assumption of average annual economic growth of 2.5% a year 1980-2000:

TABLE 1. Forecast Coal Consumption - EUR-10

	1980		1990		2000	
	Mt	%	Mt	%	Mt	%
TOTAL : (of which)	314	100	360	100	500	100
Electricity-generation	184	58.6	220	61.1	320	64.0
Inputs to coke-ovens	88	28.0	90	25.0	95	19.0
General industry	14	4.5	25	6.95	55	11.0
Domestic and other (including coal gasification and liquefaction)	25	8.9	25	6.95	30	6.0

It must be stressed that the Commission is not presenting these figures either as desirable Community objectives or as technical or economic upper limits to Community coal use over the period up to 2000. They are simply a point of reference for the analysis of constraints that follows. The actual level of coal consumption will depend on the will and determination of the Community to overcome the constraints and to act upon the proposals outlined below.

[1] COM(81)344 final.

7. Table 1 shows that electricity-generation can be expected to continue to account for the largest share of Community coal consumption, with that share increasing to some 64% of the total by 2000. The absolute level of coal demand will therefore be very heavily influenced by overall growth in electricity demand, the rate at which Member States move out of oil and gas in electricity-generation and the pace of development of nuclear power. Electricity demand growth is expected to continue to be higher than the growth of overall energy demand and it could be even higher than assumed here (3.5% a year) to the extent that there is more rapid electricity penetration in the heat market in the industrial sector, displacing hydrocarbons. The extent of such a trend is however particularly difficult to forecast.

8. The market for coking coal is dependent very largely on the future of the Community's steel industry. In present circumstances it is unreasonable to postulate any significant increase in demand above the 1980 level. Elsewhere in the industrial sector, however, the scope for substitution of oil by coal is relatively large. Table 1 assumes a four-fold increase in coal use in general industry from its current modest level, and still more is possible. Significant progress has been made already in the cement industry. In other branches of industry, especially those which are energy-intensive, improvements in traditional combustion techniques and the commercialisation of the most modern technologies such as fluidised bed combustion should help to stimulate change. But there are numerous problems, which are discussed further below. An expansion of direct coal use in the domestic sector is unlikely in the Community as a whole, but there is scope for significant growth in indirect domestic use by means of district heating schemes.

9. A particular uncertainty in the long-term forecasts relates to the potential new markets for coal as the raw material in the production of liquid or gaseous fuels. The size of these markets will depend on future trends in the price of coal itself; the price and availability of oil and gas from more conventional sources; as well as the success of research, development and demonstration (R, D & D). The best expert advice available to the Commission indicates, however, that the demand for coal as a raw material is unlikely to be a very significant element in overall demand for coal within the Community over the next 20 years.

(ii) ENHANCING THE PROSPECTS FOR COAL USE

(a) Greater price transparency

10. Over the past few years there has been a significant increase in the price of steam coal on the world market in response to increased demand world-wide[1]. The price of steam coal to consumers in the Community has however remained competitive with that of oil products

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[1] This resulted largely from increased demand for coal in electricity-generation, which rose by 25% for the IEA as a group and by 31% in the Community as a whole 1973-1980.

In contrast to the trends in steam coal prices, those of coking coal, traditionally significantly higher, have moved upwards much more slowly and differentials with steam coal prices almost eliminated. An upturn in demand for coking coal would be likely to lead to pressure to reestablish these differentials.

to a degree which at first sight would appear to be sufficient to compensate for coal's inconvenience and to provide some incentive to conversion from oil- to coal-fired installations. Uncertainty, however, about whether coal's existing price advantage can be maintaine in the longer-term is one important obstacle to the more rapid growth of Community demand. An acceleration in the growth of coal use will therefore require the encouragement of a climate of confidence in the future availability of coal at competitive prices.

11. No-one can forecast precisely how the price of coal on the markets of the Community will move in relation to that of alternatives over the coming years. A great deal will depend on the success of action to meet potential difficulties on the supply side which is outlined below (paras 33 ff) and it is for this reason that the Commission prop this action. But a precondition of greater confidence about the future better understanding of present trends with regard to prices paid with

12. A large share of coal produced within the Community is sold at prices aligned on those of imported coal. The Commission's responsibility is to ensure that this alignment is practised on a basis consistent with the ECSC Treaty and subsequent ECSC decisions. To that end the Commission has access to regular informatio about both domestic coal prices and the prices of imports. It receives regular information about pit-head prices of Community coal; the main details of contracts for both domestic and imported coking coa and quarterly information on volumes, source, calorific value and avera cost of steam coal imports for use in power stations. This informatior is used by the Commission to calculate and publish an indicative floor price for coking coal produced in the Community and a Community average

13. There are a number of shortcomings in the information available to the Commission. In particular the pit-head prices of Community coal are not prepared on a fully consistent basis, reflecting comparable treatment by all Member States of production subsidies. Nor do they always provide an accurate reflection of the prices paid by the consumer, given the incidence of transport, handling costs, alignment rebates (paragraph 12) and wholesale margins.

14. More importantly from the point of view of improving general knowledge of how the coal market operates, the detailed information available to the Commission in the context of its responsibilities under the ECSC Treaty is provided on a confidential basis. The published information is thus of only limited use in the wider context of general market transparency.

15. The Commission believes, therefore, that in order to apply these conditions most favourably to the development of coal consumption, some improvement in the quality and detail of information available to potential coal consumers about market trends should and can be made. In its Communication to the Council on Energy Prices[1] it emphasized the need for greater transparency of all energy prices as an essential element in the development of rational pricing policies and thereby in the encouragement of sensible action by investors and consumers. In its initial Conclusions of 3 December 1981[2] the Council endorsed the importance of a general improvement in transparency. Coal should clearly be included in this process. Indeed, the existing flow of information to the Commission should perhaps make it easier to identify more rapidly than in other sectors what is feasible.

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[1] COM(81)539 final

[2] 762nd meeting of the Council

The Commission intends both to seek improvements in the information available to it about coal prices and to consider how best to make greater information more widely available. Specific improvements in the quality of information will be sought:

- from Community producers by modifications to ECSC Decision 72/443 on the notification of prices applied to different categories of consumer in different regions[1];
- from Member States, by the extension of existing arrangements relating to information about prices of steam coal imports. ECSC Decision 77/707[2] applies only to steam coal for power station use and provides simply for aggregated data;
- by means of wider consumer surveys.

(b) The Stimulation of Investment

16. The obstacles to investment in coal-fired boilers in general industry were analysed in some detail in the Commission's Communication to the Council on the Substitution of Coal for Oil in Other Industries[3]. This analysis has been taken up and developed in the Commission's more recent Communication on Investment in the Rational Use of Energy.

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[1] OJ L297/45 of 30.12.72.
[2] OJ L292/11 of 16.11.77.
[3] COM(81)229 final.

Broadly the picture is that many industrial users are deterred by the long pay-back periods and appear reluctant to convert at least until their installations reach the end of their natural life-time (because of the "youth" of many oil-fired installations a large percentage have still many years to run). This reluctance varies according to the importance of energy costs in total manufacturing costs of the industry concerned and the financial situation of particular industries. In the present financial and economic climate, however, the general tendency throughout industry is to make finance available as a first priority to new investment in the manufacturing process itself rather than to more efficient ways of raising heat.

17. Some Member States (e.g. France, United Kingdom) have already taken action to help overcome the understandable reluctance of investors. The Commission intends to monitor closely the experience of this action at national level and to consider the need for complementary efforts, whether at national or at Community level, and the most appropriate form which they should take.

18. The Commission believes that in any case a clear political commitment by Member States to encourage conversion to coal would be a very helpful element in removing any remaining doubts on the part of potential investors about the importance attached by the Community and Member States to such investment. Such a commitment should apply to the encouragement of coal use not only in general industry but also in public buildings and in district heating, whether from heat sources alone or from combined heat and power installations, which offer particularly attractive possibilities.

The Commission
now seeks the agreement of the Council to two Council Recommendations (EEC) intended to encourage investment in coal-fired installations in general industry (Annex 1a) and public buildings and district heating (Annex 1b). Under the terms of the instruments proposed, Member States are recommended to take all the measures necessary to encourage investment in conversion and reconversion to coal in these sectors and to report annually to the Commission. The Commission would monitor closely what steps are taken and make any necessary proposals to the Council.

(c) Refining the technology of coal use

19. The prospects for increased coal use can be enhanced by a continuation and reinforcement of efforts already under way to improve the efficiency of existing methods of coal use and to develop and commercialise new technologies.

20. These prospects are particularly favourable in the heat sector, where substantial progress has already been made in recent years in the development of technologies such as fluidised bed combustion; in the use of mixtures of coal and oil and of coal and water; and in improvements in boiler design and control. Many of these developments should be of general application to industry and they will also be of value in improving the efficiency and flexibility of power-station operations.

21. One area to which renewed attention must now be given is the development of more effective uses for the waste produced in the coa combustion process. Annual consumption of 500 m tonnes of coal as forecast for 2000 would produce at least 75 m tonnes of waste and as For environmental reasons as well as those of efficient resource use efforts must be stepped up to turn it to more productive use (see paragraph 32 below).

22. R, D and D on the process of conversion of solid fuels to liquids and gases is in a separate category. As noted above (paragraph 9), it offers the prospect eventually of opening up new markets for coal. The processes involved are already well understoo but they need to be considerably refined before their large-scale technical and commercial viability can be determined. In the presen state of knowledge gasification appears the more promising of the two, both from a technical as well as an economic point of view, offering the prospect of a range of gases of different calorific values that can be used for heat-raising in general industry, as a raw material in the chemical industry, in efficient combined cycle operations in power stations, and for combined heat and power. Liquefaction, on the other hand, faces more difficult technical problems and its potential is restricted largely to the transport, heat and chemicals sectors. But a more definitive judgment about the prospects for either gasification or liquefaction will not be possible without a great deal of further work.

23. It is important that the Community as such should play an active role in encouraging the necessary technological developments to enhance the prospects for coal use. Member States already accept the logic of Community involvement generally in support of energy R & D; and support for R & D on improved coal production and coke oven techniques, and mining safety has been given by the ECSC Budget. In theory the ECSC Budget could be used also to finance R & D on new and improved methods of coal use. In practice, however, the level of obligatory expenditure from it; the need to maintain, and if possible increase expenditure on R & D to enhance productivity in the Community's mining industry (paragraph 40); and the impossibility in present circumstances of increasing the revenue side of the Budget by raising the levy on coal and steel produced in the Community rules this out for the foreseeable future. The Commission therefore believes that Community involvement in this field will of necessity imply recourse to the Community's general budget. It will make specific proposals accordingly.

24. Going beyond R & D, the Commission reemphasises the importance which it attaches to the demonstration of the technical and commercial viability of new processes. Some Member States have shown by their own actions the degree to which they share the Commission's analysis on this point: the German government, for example, has embarked on a 5-year programme on coal gasification and liquefaction, involving a total projected commitment of 1 bn DM (400 m ECUs). The Council has recognised the importance of Community involvement in this process by agreement to a 4-year programme of support for demonstration projects in the same field, subject to a financial ceiling of 50 mECUs. The Commission in 1980 proposed a doubling of this ceiling. As to the longer term future of this programme the Commission will be making proposals later this year. At the same time it will propose similar programmes in the fields of new combustion technologies and use of coal waste.

R, D and D has a vital rôle to play in enhancing the prospects for coal use. Support from the ECSC budget for R & D to enhance coal production and coke-oven techniques and to improve mining safety should be complemented by recourse to the Community's general budget to develop new and improved methods of using solid fuels (including lignite and peat).

Moreover, Council decisions must soon be taken about the future of the Community's existing programmes for demonstration projects in coal gasification and liquefaction, and about upcoming proposals for similar programmes covering new combustion technologies and the use of coal waste.

(d) The Treatment of Environmental Problems

25. The impact on public health and on the environment of the production and use of all forms of energy demands careful attention.

Coal production and utilization do not form an exception to this rule and, moreover, pose certain specific problems. Recognizing these problems, the Commission caused a special study on this topic to be carried out[1] which has supplemented other studies and reports prepared both in the Member States and by various international organizations.

[1] The Environmental Impact of Future Coal Production and Use in the EEC ERL, London, October 1981

The conclusion to be drawn from such studies is that the likely effects on public health and on the environment of increased coal use within the Community are not such as to lead the public authorities to slow down efforts aimed at conversion to coal, provided that a certain number of measures are taken to prevent or limit the pollution phenomena that an increased recourse to coal cannot but engender.

26. The main form of pollution resulting from coal combustion is the associated emission of oxides of sulphur, oxides of nitrogen and suspended particulate matter. The effects of this pollution are felt, in the first place on the ground in the neighbourhood of the centres of consumption. It also has effects in other regions through long-distance transport of the pollutants which, under certain combinations of atmospheric conditions, may contribute to the formation of acid rain. The latter deserve close attention in the future.

27. Various measures have been taken and applied to limit these emissions to acceptable levels on grounds of both public health and environmental protection. At Community level this involves, in particular, the application of a Directive[1] setting quality norms for SO_2 and suspended particulates that must not be exceeded.

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[1] Council Directive 80/779/EEC of 15 July 1980, OJ L 229 of 30.8.1980

28. It is the responsibility of the Member States to put this Directive into operation by taking the appropriate steps to observe the norms either by facilitating the dispersion of the pollutants or by limiting the amount of sulphur and dust released by the combustion of coal (through, for example, the use of low sulphur coals, application of desulphurisation techniques or the installation of flue gas scrubbers).

In applying the Directive the Member States should also identify the areas most affected by the emissions in question, prepare plans for the progressive reduction of pollution in those zones and submit their schemes to the Commission.

Being aware of the large investments necessary for desulphurisation, the Commission has sought, and will continue to seek by means of R, D & D programmes, to encourage the development and utilisation of new combustion techniques and, in particular, the use of the technique of fluidised bed combustion (see paragraph 20 above).

29. At the international level, the Community and its Member States are party to the international convention, set up within the framework of the Economic Commission for Europe (Geneva), on long-range trans-boundary air pollution from sulphur emissions which was signed in November 1979.

30. The emission of CO_2 resulting from the combustion of all solid fuels, constitutes another form of pollution. The concentration of CO_2 in the atmosphere and its possible effects on temperature are not well understood and form the subject of research at international level. The latter must be pursued. The Community finances some of this work under the research programme on climatology which began in 1980.

31. As noted earlier (paragraph 21), further research and development is desirable on a more productive use for the ash and other waste produced in the coal combustion process. Ash is already used as a component in cement and concrete and, together with other residues of coal-burn, could be used as material for construction, road-building, quarry infill and land restoration after opencast mining. The Commission will shortly take the initiative in bringing together the industries concerned to examine with them ways of making the best possible use of these residues.

32. As far as coal production is concerned, the impact of deep mines on "green field" sites can be reduced if certain precautions are taken from the beginning and the installations are appropriately designed. The preliminary impact studies advocated by the Commission should play a decisive rôle in this respect, as well as in the search for the most suitable ways of improving the transport, conversion and utilization of growing amounts of colliery spoil.

For opencast mining, the initial impact is substantial but temporary. In relation to this type of mining operation techniques for land reclamation have made significant progress over the past few years and should be systematically applied.

The utilisation of coal causes certain problems from the point of view of protecting public health and the environment. They are, however, not of such an order of magnitude which would prejudice a Community policy aiming at higher coal use. But this necessitates the systematic implementation of appropriate, preferably preventive measures, the application of available modern technologies, and the development of new technologies.

The Commission will ensure that Member States respect Community legislation concerning the emission of SO_2 and particulates and will, if need be, develop further the Community's legislative instruments.

The Community must continue, particularly through its R&D programmes, to promote the development and demonstration of less-polluting combustion techniques and to play an active rôle in international cooperation on the control of transboundary pollution.

Greater efforts must be made by the Community and its Member States:

- in the field of research aimed at improving the understanding of the possible climatological effects of CO_2 emissions;
- to make use of coal combustion residues, and particularly of fly ash;
- to investigate, before the opening of new mines, the most appropriate means of minimising the effects of mining operations on the surroundings.

II. - COAL SUPPLY

33. As noted earlier, the prospects for increased coal consumption in the Community over the coming years are inextricably bound up with those for additional secure supplies at competitive prices. The willingness of investors to install new systems of combustion presupposes confidence about the longer-term availability of such supplies. Equally, however, the development of production capacity, whether at home or abroad, and of the associated handling and treatment installations and infrastructure (ports, railways, shipping, slurry pipelines and so on) will require investment on a very large scale which cannot be justified in the absence of reasonable prospects for future demand.

34. Since 1973 Community coal output has never returned to its 1973 level (270 m tonnes) despite the objectives agreed by the Council in 1974[1] which presupposed the return to and maintenance of this level of output under economically satisfactory conditions through to 1985. Consequently the contribution of indigenous coal to the Community's total coal requirements has declined and that of imported coal has experienced a steady rise:

TABLE 2 STRUCTURE OF COMMUNITY COAL SUPPLY
1973 and 1980

	1973		1980	
	Mt	%	Mt	%
Community production	270	90	247[2]	77
Coal imports:	30	10	74	23
(of which)				
Industrialised World	(14)	4.7	(57)	17.7
Centrally planned economics (CPEs)[3]	(16)	5.3	(17)	5.3
Developing countries (LDCs)	(0)	-	(0)	-
Total available supply	300	100	321	100
Stock variation[4]	+10	-	-7	-
Gross inland consumption	310	-	314	-

[1] Council Resolution of 17.12.1974, OJ C153, 9 July 1975.

[2] Provisional figure for 1981 = 245 m tonnes.

[3] Principally Poland. Polish imports rose to 16 m tonnes in 1976 but declined to 13.7 m tonnes in 1980 and 4.8 in 1981.

[4] + = withdrawals from stocks
- = addition to stocks.

35. On present trends the figure of 270 m tonnes is unlikely to be met, if at all, until close to the end of the century. This judgment, which is in line with that of the Association of the Coal Producers of the European Community[1], calls into question the usefulness of the present objective and indicates the need to take a new look at the problems and prospects for the Community industry in the light of developments since 1974.

36. Such a judgment also means that over the coming years, the bulk of the Community's additional requirements for coal will have to come from imports. On the assumptions made in paragraph 6 above, coal import requirements in the year 2000 could be three or four times the present level. The availability of supplies on this scale cannot be taken for granted and specific potential problems need now to be addressed by the Community, including the implications for security of supply. These issues are considered in paragraphs 43 to 58.

(i) THE PROBLEMS AND PROSPECTS OF THE COMMUNITY'S COAL INDUSTRY

37. The bulk of Community coal is deep-mined and most of it, largely for geological reasons, more costly to exploit than coal from overseas suppliers. The current Community production can be divided into three broad categories in terms of its economic viability and its competitivity with imports:

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[1] Western Europe's New Coal Economy, CEPCEO, November 1981.

(a) 50-60 m tonnes (20-25%) which is profitable on any calculation, and fully competitive with imported coal;

(b) 140-150 m tonnes (60-65%) which is currently unprofitable, though in many cases only marginally so. Its competitivity with imported coal depends on both trends in production costs (which can be improved by productivity improvements) and movements in the cost of imported coal (these can be heavily influenced simply by changes in the value of the US dollar against Community currencies);

(c) 40 m tonnes (15%) which is very unprofitable and uncompetitive, with production costs more than 100% above the delivered cost of imports.

38. The maintenance of unprofitable capacity would not be possible without the systems of support which have been developed in all the Community's coal-producing countries (see Annex 5). In the past seven years, despite sharp rises in the price of imported coal, the cost of this support has tripled in nominal terms and doubled in real terms, moving from 1350 MECUs in 1975 to 3844 MECUs in 1981. This is equivalent to 5 ECUs per tonne in 1975 (or 15% of total sales revenues) and 16 ECUs per tonne in 1981 (or 23% of total sales revenues). The Member States concerned have found it increasingly difficult to finance this support, especially at a time of growing pressure on government budgets.

39. The involvement of Member States serves a twin objective. First, there is the social objective of maintaining employment, often in regions where coal production is, alongside the depressed steel industry, the only main economic activity and the scope for redeployment of the labour force therefore extremely limited[1]. Second, there is an energy policy objective related to the maintenance of at least existing levels of production capacity : the cost of maintaining this capacity can be seen as a kind of premium paid by society as a whole in each of the countries concerned for the greater security of supply which domestic production should bring and insurance against seriously adverse price developments on the world markets.

40. There are four main ways in which the general situation of the industry can be improved and the growing cost of this premium reduced. Inevitably, however, the increased modernisation of the industry to which they will contribute, will have implications for total employment[2]. These will require particular attention by Member States and by the Community under the ECSC Treaty:

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[1] Some 500 000 people are currently employed directly in coal mining in the Community. Together with ancillary and related industries (trading, transport, mining equipment, processing, etc) the coal sector employs at least 1 m.

[2] In this context it should be remembered that the wages bill of the coal industry accounts on average for 60% of total costs. Since 1973 miners' wages have risen on average by 3-4% a year in real terms, much the same as total costs in the industry. The future cost structure of the industry will depend on the interaction between improvements in productivity and the evolution of the total wages bill.

(i) the more widespread application of modern technology to parts of the industry where this seems likely to produce positive results(the capacity described in paragraph 37 b). The scope for substantial improvements is limited, however, by the high degree of mechanisation that already exists at the coal face, though there is certainly potential for continuing modernisation of some of the processes away from the face itself;

(ii) increasing the rate of equipment use. At present the average rate of equipment use, especially at the coal face, is about 20-30% of the theoretical potential[1]. This is a very low rate and substantially reduces the return on capital employed. There are many reasons for it: notably, unreliability of the equipment itself, difficulties in the control and command of operations at the face, technical or organisational problems away from the face itself which impact indirectly on face-work. Where these problems can be overcome experience has shown that utilisation rates of over 40% are already possible;

(iii) improvements in available technology. In the longer-term productivity can be improved by the fruits of R & D on key elements in the coal production process, especially R & D into some of the causes of the problem of low rates of equipment use. Special attention must be given to ways of improving the strength and reliability of coal-face equipment and applying new systems of effective remote-control and computerisation of operations.

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[1] Assuming round-the-clock use every day of the year.

The ECSC Budget has financed direct Community involvement in support for research and development on the means to more efficient coal production. This support must be continued. But in view of the constraints discussed in paragraph 23, it is important that the funds available should be concentrated on applied research, on the promotion of new and promising technologies and on techniques which seem designed to have general application. Only in that way are they likely to make an early contribution to improved productivity[1];

(iv) <u>further rationalisation of the structure of the industry</u>. The Community has to face the uncomfortable fact that a large number of its mines will never reach a level of productivity sufficient to make them even marginally profitable or competitive with operations abroad, no matter how modern the technology invested in them or how efficiently that technology is used. The rate at which new productive mines can be opened, and the health of the Community mining industry improved, will be linked to the rate at which uneconomic capacity is phased out.

This process of rationalisation has been underway for some time. On present plans by the Community industry some 10-20 m tonnes of profitable new capacity will come into operation over the next 10 years.

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[1] A similar approach should be adopted to Community support for R & D into better coke-oven techniques and into improved health and safety in mines.

41. Increased mechanisation at existing pits, the development of new mining technology and the opening up of new productive mines are very costly. Investment in the Community mining industry amounted to 1.8 bn ECU in 1981 and this figure will have to grow in real terms over the coming years if there is to be substantial progress in improving the structure and viability of the industry as a whole. The necessary finance can be found only to a limited extent from the industry's own resources of cash; at the same time the ability of the industry to sustain an increased burden of interest charges and capital repayments of loan finance is also severely constrained by its existing financial situation.

42. There is therefore a real risk that the industry will be unable to break out of the vicious circle in which a low average level of productivity caused by the maintenance of an uneconomic capacity reduces the industry's financial capacity to effect the necessary improvements required to put itself on a sounder general financial footing. It is therefore of great importance that measures of support by Member States should be concentrated as far as possible on the process of modernisation and rationalisation. In this context it should be recalled that the 1974 objectives[1] referred to the maintenance of Community coal production at a steady level only "under economically satisfactory conditions". This same qualification is repeated in the Commission Decision (ECSC 528/76) relating to coal industry aids. For its part, the Commission intends to follow its past practice, limiting such Community support as is available (notably ECSC loans, to a small extent at subsidised rates of interest - see Annex 5) to investment in economic or at present marginally unprofitable capacities.

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[1] Council Resolution of 17 December 1974, OJ C153, 9.7.75, p.4.

Community coal production offers distinct advantages over imported coal in terms of security of supply and insurance against the risk of adverse price developments on the world market. A healthy Community industry is in the interests of both consumers and of its own workers. The prospects can be improved by further modernisation and rationalisation, with gradual closure of those pits that are economically unviable and the opening up of efficient new productive capacity.

The Commission intends to continue to direct such Community aid as is available in support of the objectives of modernisation and rationalisation. It will also continue to meet its responsibilities in the fields of re-adaptation of workers in the industry and to pay full attention to any new social problems that arise using to the full the provision of Article 56 of the ECSC Treaty. The long-term position of the industry would be enhanced by a concentration of national measures of support on the promotion of structural change and improvements in productivity.

Support for R&D from the ECSC budget will continue to be an important element in helping to improve coal production technology in the longer-term. It must be maintained and if possible increased.

(ii) THE IMPLICATIONS OF INCREASED COAL IMPORTS

Developing Relations with Suppliers

43. Table 2 (paragraph 34) shows that the bulk of Community coal imports come from Industrialised World sources (principally USA, S. Africa, Australia, Canada), some 23% from Poland and the USSR combined, and a negligible share so far from developing countries. The Industrialised World suppliers are likely to remain the main sources of world coal exports and the principal suppliers of the Community for the foreseeable future[1].

These countries' recoverable reserves are large enough to cope with foreseeable export needs; in most cases it will be possible to create additional coal production capacity and the necessary infrastructure relatively fast and at reasonable cost. In the longer term, more suppliers should enter the world market.

Nevertheless, special attention needs to be paid to the resolution of potential problems likely to impact on the smooth evolution of coal trade (paragraphs 44-45). Whether Poland and the USSR can maintain their share of the Community market is subject to particular uncertainty at the present time. The scope for an expanded role by developing countries is considered further below (paragraphs 46-47).

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[1] Relative distances between individual main suppliers and Europe will, of course, play a rôle in determining the balance between them:

USA:	7 500 km (12 ship-days)
South Africa:	11 500 km (19 ship-days)
Canada:	15 000 km (25 ship-days)
Australia:	22 000 km (35 ship-days)

(a) The Main Coal Exporters

44. The main coal exporters of the Industrialised World together exported some 165 m tonnes of coal in 1980, or 80% of total world exports[1]; while the Community for its part is the largest single importer of coal in the world. With the prospect that the bulk of the Community's increased demand for imports will fall upon these countries, three main questions deserve consideration:

(i) will the necessary investment in new production capacity and associated transport and handling facilities be forthcoming in the producing countries?

The main exporting countries have substantial plans for investment in both coal production capacity and in the necessary ancillary infrastructure. But increases in capacity will not occur overnight: the opening up of a new mine, even if it is open-cast, takes several years and the time factor is of particular importance where new mining operations are started on 'green field' sites.

[1] Excluding intra-Community and intra-CMEA trade and trade between the USA and Canada

The potential role for non-indigenous and particularly Community capital in financing the necessary investment is uncertain for the moment: both Canada and Australia have taken measures to control investment by foreign companies and, where the participation of foreign capital requires special authorisation, this may produce delay in investment programmes. The involvement of Community enterprises in helping to finance the exploitation of overseas coal supplies (joint venture operations) would however, help to cement trading relations and ensure that production continues to be made available for export to the Community. The Commission therefore underlines its desirability, together with the need for more widespread conclusion of long-term import contracts so as to give suppliers greater confidence about their future markets. As far as joint venture operations are concerned, Community loans may be used to support certain categories of investment under specific conditions.

(ii) is there a risk of price and supply manipulation by coal-exporting companies?

It has been argued that a growing concentration of reserves and production capacity in the hands of a small number of multinational companies, many of them oil companies, could lead eventually to the creation of an international cartel of coal exporters. The Commission believes that this risk is limited by the natural forces of competition, the flexible and diversified structure of the world coal market (with its large number of supplying countries and companies), and by existing anti-trust legislation in the main coal exporting countries. But possible developments must be kept under review and should be an element in discussions between the Community and the Governments of the supplying countries (paragraph 45).

(iii) the policies of exporting countries themselves in relation to the international coal trade

Both prices and supplies are currently subject to different forms of control by the governments of exporting countries. Some (e.g. Australia) impose export taxes; others (Canada, Australia, South Africa) apply measures which effectively limit volumes available for export or control foreign investment. Thus far these policies have had no significant effect. But the extension of such measures could have more serious consequences, particularly as world coal demand increases.

As the largest trading entity in the world and the largest importer of coal, the Community has a vital interest in the promotion of free trade in that commodity. The Commission emphasizes the importance of the international commitments already made in this respect within the IEA and by the main industrialised countries meeting in the framework of the Western Economic Summits. At their Ministerial meeting of 21-22 May 1979 the Governing Board of the IEA adopted a set of Principles for Action on Coal, including action with respect to international trade, notably in the following terms:

> IEA countries both as producers and consumers will facilitate the expansion of international trade in coal and will do so on a basis which encourages the development of stable relations between consumers and producers, on fair, reasonable and competitive terms, especially by means of long term contracts. They will ensure that an economic, fiscal and investment climate prevails which is conducive to development of coal production, trade and utilization as envisaged in these Principles for IEA Action on Coal.[1]

[1] IEA/ Press (79) 15, 22 May 1979, paragraph 22

And at their Summit meeting in Venice in June 1980 the representatives of the Seven, together with the Community, undertook to expand coal production and use, to encourage long-term contracts between exporters and importers, and to improve facilities for handling an increased international trade in coal[1].

Such commitments expressly apply as much to the importing countries, including those of the Community, as to the exporters. The Commission believes that Member States should take them fully into account in determining their own policies.

45. All these questions require further examination in appropriate international meetings and bilaterally with the countries concerned. With many of them the Community already has relations of confidence and institutional machinery for regular consultation on issues of particular concern. It is important that coal trading issues should now become an important feature of those consultations.

The major Industrialised World producers will continue to be the main source of Community coal imports. Discussions of problems likely to constrain the development of the international coal trade should become an important feature in regular consultations between them and the Community.

The Community has a vital interest in the promotion of a free international coal trade. The Commission draws attention in this context to the commitments to the promotion of the international coal trade to which the main exporting and importing countries have all subscribed.

[1] Declaration on Economic Subjects by participants in the Western Economic Summit, Venice, 22-23 June 1980

(b) Developing Countries

46. In the present state of knowledge, the following countries have reserves sufficient to support, in theory at least, the development of sizeable exports for the world market:

TABLE 3 COAL RESERVES AND PRODUCTION IN DEVELOPING COUNTRIES

Country	Estimated Recoverable Reserves m tonnes	1980 Production m tonnes
Asia:		
China	99.000	606.0
India	12.600	107.8
Indonesia	1.430	0.3
Africa:		
Botswana	3.500	0.4
Mozambique	240	0.5
Swaziland	1.820	0.2
Zambia	40	0.6
Zimbabwe	755	3.1
America:		
Columbia	1.010	4.5
Mexico	1.200	7.1

Some of them, notably Columbia and Zimbabwe, have projects under way to develop their reserves and have shown real interest in the possibility of exporting for the world market. But the pace of development of the coal industry in the developing countries depends heavily on the availability of investment finance both for the mining operations themselves and for improvements in infrastructure (especially ports and railways).

47. The likelihood of only limited export availabilities from the developing countries in the foreseeable future means that their total contribution to Community supplies will continue to remain limited, though they will make a contribution to diversification. The Community, however, has an important role to play in providing financial and technical help in the development of their coal industries. Within the framework of the Lomé Convention, a number of actions have already been taken in the coal sector in ACP countries, notably in Zimbabwe and Botswana which each expect to export 5-10 mt a year in the longer-term. Further agreements with Botswana are in prospect.

Action under Lomé II to help finance the development of the mining industries in ACP countries should be expanded and complemented by appropriate action with regard to non-associated developing countries. Ways must also be found to intensify relations with both associated and non-associated countries in training, the promotion of technology transfer and supply of equipment, so as to enable them to benefit more fully from the substantial technical experience and knowledge about mining operations available within the Community.

The Need for Consultation within the Community

48. As the world coal market expands it will become much more complex, with more and more companies, countries and organisations involved in providing a growing diversity of production, transport and trading activities. With the prospect of growing Community dependence on this market the need within the Community for the widespread availability of accurate information about market developments will grow. Such information is essential if Community importers are to be able to provide the most economic and secure service to their customers and if the risk of unnecessary market pressure is to be avoided when supply difficulties occur or are threatened.

49. The Community has already had a bitter foretaste, in the developments on the world coal market in 1980-81, of the difficulties that can occur in the absence of adequate and widespread information about real market trends. Following the fall in Polish exports and an expected miners' strike in the United States, sudden additional demand was concentrated on US suppliers. The latter were able to supply but the consequence was an overloading of the East Coast US ports. As a result of the loading arrangements in force Community importers were obliged to meet large demurrage (waiting) charges which significantly increased the delivered cost of coal. Other suppliers took advantage of this situation to raise their own prices by an equivalent amount. The rise in world coal prices, the direct cost of which to the Community was of the order of $US 500m in 1981, could have been largely avoided by a better understanding on all sides of what was happening.

50. Other main importing countries (e.g. Japan) have already put in place arrangements for consultation procedures involving importing enterprises. The Commission believes that the Community should follow suit so as to ensure an appropriate exchange of information about short- and long-term market trends and joint consideration of any necessary action. Such a procedure would parallel the flexible arrangements that already exist, for example, in respect of oil. It would need to be so structured as to avoid any risk of a restriction of competition, but in practice such a risk is slight.

In order to help improve the general perception of market trends and to reduce the risk of unnecessary market tension at times of real or threatened shortages of supply, the Commission therefore considers it desirable for European companies involved in coal supply to make appropriate arrangements (for example, through the establishment of a professional assocation) for the regular exchange of information about short-term market developments and longer-term prospects, likely problems and possible solutions. Such arrangements should be of such a form as to facilitate the undertaking of specific action to meet the problems that are identified, taking full account of competition rules, and to provide for the submission of suggestions to the Commission[1] for action, if appropriate, at Community level.

[1] Article 46, ECSC Treaty

The Handling and Transport of Imports

51. The handling and transport within the Community of substantially increased coal imports will require some improvements in the existing Community infrastructure:

- some port facilities will have to be expanded and new ones constructed to cope with larger ships, to provide much bigger coal storage areas, and to allow for an increasing number of coal preparation plants[1];

- the existing railway systems of the Community should, on the whole, be able to absorb the likely increase in traffic. But new investments will be needed in areas where consumption is expected to be concentrated; there will be an increase in the need for special rolling stock designed for coal transport; and complete trains designed to carry up to 3.000 tonnes rather than the current norm of 1.650 tonnes should be put into service in order to maximise the efficiency of railway operations;

- inland waterways, on the other hand, should have sufficient capacity to cope with the share of traffic expected to fall to them, assuming continuing modernisation of coal handling facilities and shipping.

52. Substantial investments will be required in those countries which have no coal production of their own. Some may experience particular difficulty in financing the public sector investments in port facilities and in their inland transport network. Such investments can benefit from loans under

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[1] The final stages of treatment of coal imports (e.g. screening, grinding, blending) can take place either at the port of loading or the port of unloading. In practice a sizeable share of imported coal is likely to undergo treatment at the point of entry into the Community.

NIC, EIB and ECSC. In the less prosperous members of the Community which participate fully and effectively in EMS, interest-rate subsidies available under NIC and EIB can also be used. Investment to increase the capacity and flexibility of the coal transport system could also benefit from the Community assistance for transport infrastructure proposed under a Draft Regulation already before the Council[1].

The handling and transport within the Community of an increased level of imports will not require a radical change in the existing Community infrastructure, but substantial investment will be required in certain countries. Infrastructural investments in this sector must continue to benefit from Community loan facilities and, where countries are eligible, from interest-rebates under EMS.

[1] COM(76)336 final.

Strategic Security

53. The prospect of a substantial increase in the share of Community coal consumption (from 23% in 1980 to 45% or more raises inevitably the question of security of supply. One c best guarantees of security is diversification of source in country and of company. Security can be further enhanced by of long-term contracts, as discussed above (para. 44 i). Bu is to be seriously addressed, attention must be paid at a Com both to coal stocking policy and to the adequacy of the exis crisis management procedures in the event of persistent shor supply. In examining further both these issues, the Communi adopting a position consistent with that already adopted in and natural gas where similar issues arise. In this context, a better exploration of coal deposits in the Community could

(a) Stocks

54. At the end of 1981, Community coal stocks (strategic, c and working stocks) amounted to about 110 m tonnes, equivale to 120 days of 1981 consumption but varying significantly be States (from 25 to 310 days according to the country). The stocks are commercial stocks managed and financed by the ent concerned, with 40 m tonnes held at power stations and 45 m coal producers themselves. The only strategic stocks as suc of the German national coal reserve (10 m tonnes) which are and managed on behalf of the German government.

55. The only provision in Community legislation relevant to coal stocks is the requirement that electricity producers hold stocks of fossil fuels equivalent to 30 days' consumption [1].

56. The higher the stock levels, and the closer they are to consumers, the greater the security of supply and the lower the risk of disruption to economic activity. But there are technical considerations relating to rates of degradation. And there is also a price to pay and a question as to who (taxpayer or consumer) should finance the security premium which stocks provide. The time is ripe for consideration of all these matters at Community level.

The Commission invites Member States to endorse the desirability of a study at Community level of the adequacy of existing stock levels, the need for strategic stocks and the financing and management of coal stocks. If it is to be effective, such a study will require close consultation between the Commission and Member States.

[1] Directive No. 75/339/EEC of 20 May 1975, OJ L 153, 13.6.75

(b) Crisis Management

57. As long as the Community's stock levels are adequate supply shortfalls of limited duration are unlikely to create serious difficulties as far as quantities are concerned. The development of the process of consultation described above (para. 50) should also reduce the risk of repercussions on prices of limited supply shortfalls.

58. A persistent shortfall leading to a supply crisis is most unlikely, given the diversity of sources of potential supply. The risk can be further reduced if stocks are kept at levels which take this possibility into account. But in view of the difficulties which such shortfalls could create it is only prudent to examine the adequacy of existing crisis management machinery.

Article 59 of the ECSC Treaty gives the Commission certain powers in a serious supply shortfall to allocate Community coal among Member States. This article has never yet been invoked and its application raises a number of practical difficulties. It did not, for example, envisage a substantial dependence by the Community on coal imports. Moreover, there is a lack of clear criteria for the operation of the allocation system.

A serious and persistent shortfall in coal supplies, though unlikely to occur, could cause great difficulty if it did. The Commission proposes therefore to examine in detail whether the present crisis management arrangements provided for by Art. 59 of the ECSC Treaty are appropriate in present circumstances and whether new arrangements need to be considered.

CONCLUSIONS

In the light of the foregoing, the Commission hopes that the Council will, besides considering sympathetically the coal-related proposals in its Communication on investment in the rational use of energy, adopt the following conclusions:

(a) re-affirm strongly the need to accelerate the substitution of oil by coal;

(b) endorse the aim of improving coal price transparency as a means to that end;

(c) approve Council Recommendations to Member States aimed at encouraging investment in the conversion or reconversion of oil-fired installations to coal in general industry, in district heating schemes (particularly combined heat and power) and in public buildings;

(d) approve the principle of a Community programme of research and development in new and improved methods for the use of coal, to be financed by the Community's general budget;

(e) note that the Commission will submit proposals concerning the future of the Community's existing technology, and will also submit similar programmes covering new technology, and to propose similar programmes covering new coal combustion technologies and the use of coal waste;

(f) agree that there is no reason on environmental grounds to qualify the commitment of the Community to greater coal use, though efforts at Community and at national level must continue on effective control of emissions and of waste, including the necessary further research;

(g) agree that the use of Community financial instruments in support of the Community's coal mining industry should continue to be concentrated on investment in economic or at present marginally unprofitable capacities;

(h) re-affirm its commitment to active promotion of the international coal trade and, concomitantly, both to developing a continuing dialogue with governments of the main exporting countries and to encouraging the development of coal mining industries in developing countries;

(i) encourage the establishment, at Community level, of arrangements for consultation between European companies involved in the coal trade, with the aim of promoting exchanges of views on market prospects, problems and possible solutions;

(j) recognize the useful role that Community financial instruments can play in support of investments in the infrastructure required for handling a growing trade in coal;

(k) agree, in the light of the Community's growing dependence on external supplies of coal, on the need for a study by the Commission, in consultation with Member States, of existing stock policy and of procedures for handling any serious coal shortage.

ANNEX 1 a

DRAFT

Council Recommendation of .....

to the Member States concerning measures to be taken to encourage investment in coal-fired combustion equipment in "general industry"

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community;

Having regard to the draft of the Commission;

Having regard to the Opinion of the European Parliament;

Having regard to the Communication from the Commission on coal in the context of the Community's energy strategy;

Whereas economic activity in the Community is being hampered by particular constraints imposed by substantial oil imports and by the concomitant uncertainty concerning supplies and prices;

Whereas even a slight revival in economic activity in the industrialized countries, in conjunction with the foreseeable increase in oil demand in the rest of the world, is bound to accentuate those constraints;

Whereas energy policies should help bring about, as soon as possible, the structural changes needed in order inter alia to get a tighter grip on energy supply; whereas those changes can be accomplished only by increasing the contribution made by alternative sources of energy and, in particular, by coal;

Whereas the "general industry" sector requires heat both for industrial processes and for heating and therefore offers particularly wide scope for substituting coal for oil;

Whereas, despite coal's current price advantage over fuel oil, the process of substitution has got off to a slow start for economic and environmental reasons; whereas the main factors involved are:

- the generally very high costs of investment in conversion, and high, unstable interest rates;

- the lack of experience of using coal, in particular in those countries without a coal industry;

- the uncertainty as regards the effect of environmental protection measures;

Whereas the Member States should encourage investment in conversion in view of the importance of this investment for economic activity and the specific character of some of the investment;

Whereas the Member States should make a concerted effort to implement a consistent series of measures to overcome these difficulties and obstacles;

MAKES THE FOLLOWING RECOMMENDATION TO THE MEMBER STATES:

1. to take all possible measures to encourage the undertakings of all branches of industry, except the steel industry and the energy sector, including private electricity generation, to invest in conversion or reconversion of existing oil-fired combustion equipment to coal.

2. to notify the Commission, at the end of each year, of the measures which they have taken to implement this recommendation.

DRAFT

Council Recommendation of .....

to the Member States concerning the encouragement of investment in the conversion or reconversion to coal or coke of oil-fired boilers in public buildings and in district heating systems

THE COUNCIL OF THE EUROPEAN COMMUNITIES

Having regard to the Treaty establishing the European Economic Community;

Having regard to the draft of the Commission;

Having regard to the Opinion of the European Parliament;

Having regard to the Communication from the Commission on coal in the context of the Community's energy strategy;

Whereas economic activity in the Community is being hampered by particular constraints imposed by substantial oil imports and by the concomitant uncertainty concerning supplies and prices;

Whereas even a slight revival in economic activity in the industrialized countries, in conjunction with the foreseeable increase in oil demand in the rest of the world, is bound to accentuate those constraints;

Whereas energy policies should help bring about, as soon as possible, the structural changes needed in order inter alia to get a tighter grip on energy supply; whereas those changes can be accomplished only by increasing the contribution made by alternative sources of energy and, in particular, by coal and coke;

Whereas public buildings and district heating systems offer particularly wide scope for substituting coal and coke for oil;

Annex II

Whereas despite coal's current price advantage over fuel oil, the process of substitution has got off to a slow start for economic and environmental reasons; whereas the main factors involved are:

- the generally very high costs of investment in conversion and high, unstable interest rates;

- the lack of experience of using coal, in particular in those countries without a coal industry;

- the uncertainty as regards the effect of environmental protection measures;

Whereas the Member States should encourage investment in conversion in view of the importance of this investment for economic activity and the specific character of some of the investment;

Whereas the Member States should make a concerted effort to implement a consistent series of measures to overcome these difficulties and obstacles;

MAKES THE FOLLOWING RECOMMENDATION TO THE MEMBER STATES:

1. to take all possible measures to encourage the conversion or reconversion of coal or coke of existing oil-fired combustion equipment in public buildings (administrative buildings, barracks, schools, etc.) and in district heating systems.

2. to notify the Commission, at the end of each year, of the measures which they have taken to implement this recommendation.

ANNEX 2

Major features of the coal market

1. Coal as a solid mineral fuel

Coal used as a fuel is not so convenient as natural gas or industrial fuel-oil. Weight for weight its calorific value is about 50 to 75 % of that of oil ; being solid, it is more difficult to handle and transport. As the raw coal comes from the pit it contains impurities (shale) which have to be separated out and generally represent a big volume to be disposed of near the colliery (tip heap). After the combustion of the coal, ash residues have to be collected ; they represent in weight up to 15 - 20 % of input.

As for every raw material the physical and chemical characteristics of coal vary according to the origin and may prevent the use of raw coal ; different techniques (mechanical preparation, blending, additives, carbonisation and so on) make it possible to get products which have optimal characteristics as regards efficiency and price for a given use in a given appliance. One is therefore led to consider not only "coal" but "coals".

The coal producer generally carries out the cleaning and preparation of the coal at least partially. A complementary stage can take place, especially for sea-borne coal, in plants located either at the port of loading or unloading, or near inland consumption centres.

Such operations are all the more interesting in view of the expanding demand and also of the possible necessity of involving coal resources of lower grade or very different characteristics to ensure a larger world market supply ; increasing volumes of such coals should undergo adequate preparation in order to be burnt in thermal appliances which require relatively stable products. (See para. 52)

2. Coking coal and steam coal

Coal is used in two main ways : it can be transformed into coke or burnt as received for heat or steam raising.

Annex 2

For these two categories of use the world market trend between 1979 and 1982 can be summarized as follows (1) :

		(million metric tons) 1982 (estimation)
	1979	
Coking coal	127	140 (+ 10 %)
Steam coal	102	131 (+ 28 %)

These data show the intense development of the thermal use of coal worldwide.

Corresponding data for Community imports are (1) :

Coking coal	30	30 (+ 0 %)
Steam coal	48	58 (+ 21 %)

The share of Community coal in each of both sectors was about 70 - 75 % of their coal use.

Coking coals are generally of a higher grade than steam coal. They consequently require preparation and loading equipment which is more complex and also a tightly scheduled supply, because they can lose their essential qualities especially due to oxidation if they are stockpiled for too long a time. Thermal coal is generally able to bear a larger and longer stockpiling - subject to certain precautions - which permits a less regular supply.

When supplies of both coal types happen to come from the same group of suppliers or of loading ports, it would be wise that the importers concerned make some arrangements in order to avoid unfavourable conditions and notably price shocks for both consumer categories (see para. 50).

3. Operators and commitments

As regards these points there is no essential difference between coking coal and thermal coal.

a) Opérators

The large producers and the large users generally feel able to handle their business direct, on both the Community market and the world market.

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(1) In both cases, intracommunity sales are included. They are most important in coking coal.

Annex 2

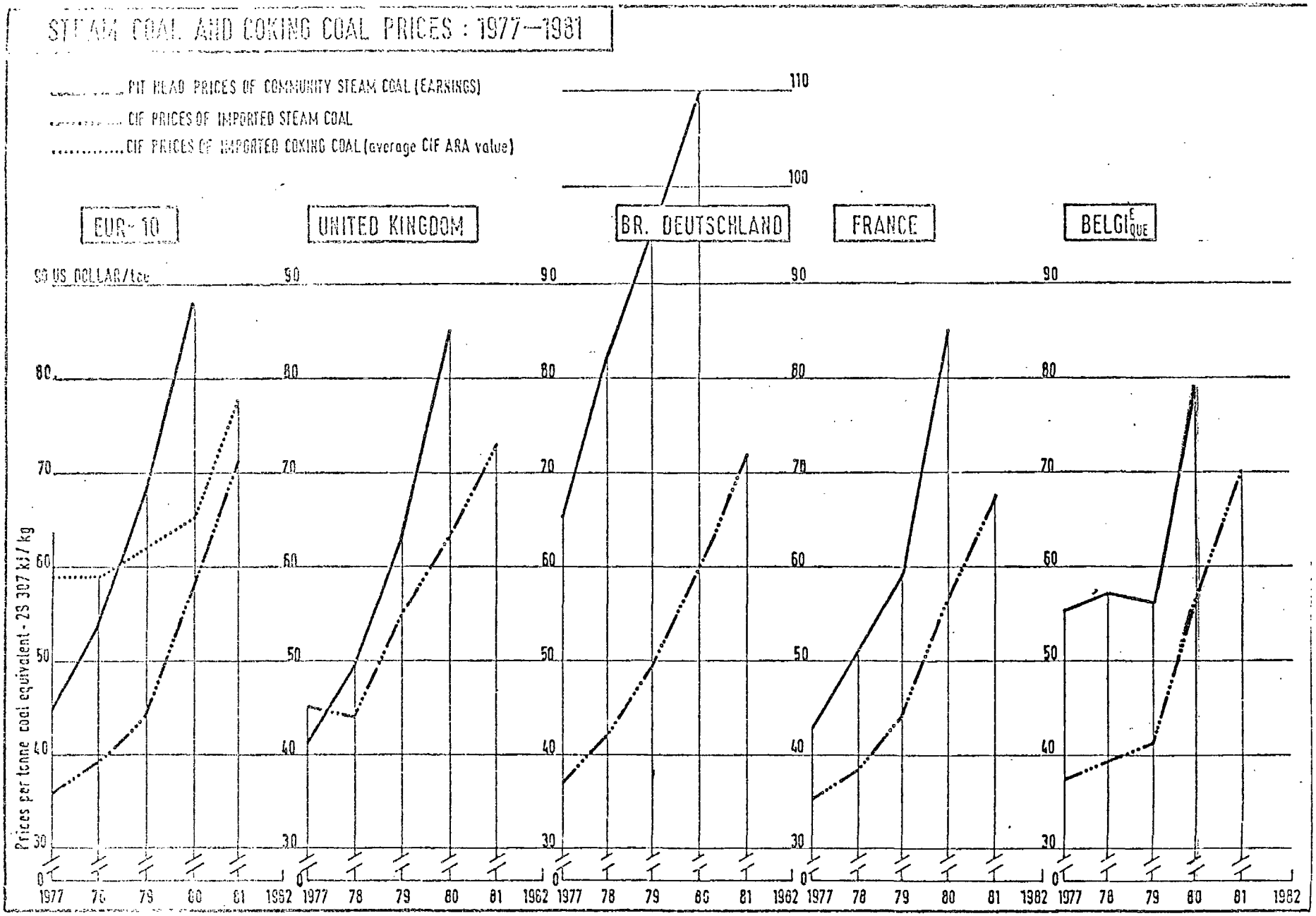
Small and medium size coal users (general industry, services, etc.) have no direct access either to the Community production or to imported coal. They rely on distributive firms, often equally small or medium size businesses, who have a vital role to play as regards coal penetration in the above-mentioned sectors. They should therefore be encouraged to deliver to their customers coals and related services at competitive prices.

b) Commitments

With a view to balancing concerns about diversification, mobility and security, a given purchaser generally combines commitments of different duration - short, medium and long term - negotiated with different purchasers. Many commitments are renewed when they have run their course. These commitments provide for a certain tonnage flexibility which, in principle, make it possible to adapt to varying conditions. The purchaser may also cover his very short-term requirements by "spot" commitments ; the latter represent a relatively small part of the market.

Third country producers are more and more inclined to subordinate the development of new production capacity to the prior conclusion of a sufficient volume of long-term supply commitments. The extension of European interests in the production of coal in third countries should lead to an increase in the proportion of long-term engagements in the provision of the Community's requirements while, at the same time, safeguarding the necessary commercial flexibility.

STEAM COAL AND COKING COAL PRICES : 1977—1981



Average costs of the coal production in the Community

First Half 1981

Country	National currency/t	Ecu/t	$/t
Germany	DM 217.-	85.09	100.00
Belgium	FB 4,238.-	102.07	119.97
France	FF 468.-	77.89	91.55
United Kingdom	£ 41.6	77.70	91.40

Annex 5

Outline of existing measures

1. Measures in favour of Community coal

The existing coal policy measures concern essentially the coal producing Member States. This observation applies as much to national measures as to the Community's main interventions.

The Community measures concern investment loans (Art. 54 of the ECSC Treaty), research aid (Art. 55), social problems (Art. 56) and aid for coking coal for the steel industry.

The objectives of the national measures are, in principle, the same in all the Member States: to stabilise production and to guarantee disposal and employment[1].

The Community's expenditure related to coal is fairly modest in relation to the financial charges that the Member States concerned have to bear as a result of their coal production. As a consequence of the limits on the Community's budgetary credits, solution of the problem of subsidies remains, for the most part, a national task. By virtue of the dispositions of Decision No. 528/76, the role of the Commission is to ensure the avoidance of excessive aid or perturbations in competition among the coal producers.

Financial aid in favour of current coal production in 1981

	Total sums (MioECU)	Amount per ton of production (ECU)
Belgium	281.6	46.16
F.R. of Germany	1 162.3[2]	12.42[2]
France	404.2	23.10
United Kingdom	845.7	6.77

A special system for Community coal and coke for the Community steel industry has been in existence since 1967. Based on Art. 95, it comprises three parts concerning respectively :

1) In 1979 the Commission reported to the Council on the measures taken by the different Member States in the domain of coal utilization for production and importation (Document COM (79) 322 final of 21.6.1979)

2) Excluding aids on basis of "3rd Verstromungsgesetz"

Annex 5

- the monitoring of national aids granted by the Member States for the production of coking coal;
- the financing of Community aid for disposal in the context of Community trade;
- alignment rules based on a guide price

The system is applicable up to 31 December 1983[1].

Consideration should be given as of now to the value of maintaining the system after the above-mentioned date and to the form that such maintenance might take.

2. Measures taken with regard to imports

The rules in force with regard to imports may be summarised as follows:

Belgium : Imports are subject to licence and quotas can be fixed by ministerial decision.

Germany : A federal law having effect for 15 years from 1980 has considerably modified the previous quota system. The quota, which was about 16 million tonnes for 1981, could reach and exceed 39 million tonnes by 1987.

France : The administration fixes quotas matched to licences. A public body (ATIC) is responsible for purchase and transport.

United Kingdom : The system of general licencing for open imports is furnished with a set of rules that tend to limit imports to the absolute minimum necessary (special qualities).

The non-producing countries do not apply any restrictions to imports from third countries.

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1) cf. Decision 73/287/ECSC, OJ No C 36/2 of 13.2.1980