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Energy and Energy Research in the Community: A Five-Year Programme of Action and Its Financing

Communication from the Commission

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English edition

The need for a different approach

1. The past three years have brought dramatic changes on the world oil market as it adjusts to new and very different market conditions. The price increases of 1979/80 contributed substantially to the damaging depression of economic activity which has been witnessed throughout the industrialized world. But on the positive side they had a direct effect on the demand for oil and on the supply and use of other fuels. They also changed the perceptions and behaviour of governments in oil-consuming and oil-producing countries alike, and those of companies and individuals inside and outside the oil industry.

The combination of these factors pushed world oil demand down by a staggering 20% in three years and with this has come the fall in the price of crude itself.

These changes carry important lessons for energy policy and set a new context for future action. The new situation requires a different response in the Community from that of the past, building on the successes of the past but learning from the mistakes; capitalizing on the opportunities while minimizing the risks; and providing a solid bridge from the present to a more stable and more certain future.

The lessons of the past

2. One key lesson from the past is that energy policy brings clear rewards.

Some of the gains that have been made are due to the efforts of governments to encourage more rational energy use and a less vulnerable and more diversified pattern of energy supply.

Another lesson is that market forces are very much alive and kicking in the energy field, working during the past three years vigorously in support of our energy policy objectives.

Consumers and investors responded to the rise in oil prices in 1979/80 by cutting oil consumption and shifting to other fuels. And in the oil sector itself increased production from non-OPEC sources has added to the impact of falling oil demand in establishing a more market-based level of prices.

A third lesson however, is the importance of sustained effort and continuity of approach. The process of adjustment in the energy sector after the first oil shock of 1973-74 was not sustained as prices began to fall in real terms thereafter. Some of the results are only being felt today in the electricity sector where new oil-fired plant ordered in the mid-1970s is coming into operation. Many of the gains of the past few years will be lost if this cycle is repeated, with short-term market signals setting the process of adjustment in reverse once again and encouraging a return to the earlier uneven balance between oil-producers and oil-consumers in the market place.

The opportunities and the risks

3. The opportunities in the new situation are substantial. The Community's balance-of-payments will be USD 10 000 million better this year than last because oil prices are lower. Economic growth should be higher by 0.5% or more next year as a result and inflation will be down by 1% or more. There will be gains to the public purse as economic activity picks up and there will be gains to industry and to the consumer. The short-term economic outlook for the Community as a whole will therefore be better as a result of the new oil market situation.

4. The longer-term is clearly less secure. The present oil market situation seems most unlikely to change overnight, barring unforeseeable political developments, but some time later in this decade the position could be very different. The industrialized countries have meanwhile a breathing space to consolidate the gains of the past and to put the future on a sounder footing.

But, conversely, the slackening of the oil markets may work against their doing so. Adequate progress towards the Community's long-term energy objectives could not be taken for granted even before the new oil market situation developed. Falling oil prices and changing perceptions about their future evolution will make the realization of those objectives even more difficult.

5. The risks are of two kinds. The first is that governments will put energy policy on a back-burner as the other and more immediately pressing issues of employment and inflation continue to dominate the political debate. The

second is that consumers and investors in both the public and private sectors will see little market incentive to sustain the pace of restructuring when investments outside the energy sector begin to show substantially quicker returns as the relative price of energy falls.

Building a bridge to the future

6. The problem is where to strike the right balance in trading off the short- against the longer-term. The Commission certainly does not want to risk nipping the economic upturn in the bud by unnecessary burdens on economic operators and consumers. Neither do we wish to see the energy sector preempt unduly the investment resources which will be needed also to transform the outlook for some of those new industries on which the future industrial health of the Community will also depend. Nor would we wish to see energy developed just for its own sake. Energy is only one factor of production which, in combination with others, ensures the production of goods and services.

7. But energy is so fundamental to the successful pursuit of the Community's general economic aims that it should have special and priority treatment. If the main objective of energy policy is to prevent a rationing in the growth of goods and services in the years to come, energy investment should be made a major beneficiary rather than a potential casualty of falling oil prices.

By using in the energy sector some of the resources freed by falling oil prices, the risk of a longer-term energy constraint on growth can be reduced.

The optimization of resource use

8. A priority role for energy can be justified only if the additional effort is achieved at least cost and at greatest benefit. Resource use in its widest sense must therefore be optimized. This cannot be achieved at national level.

9. The waste and the rigidities created by uncoordinated and duplicated action in the energy sector are visible throughout the Community. In the electricity sector, for example, there is excessive and underutilized supply capacity in some Community countries while the intercon-

nection system is in places quite inadequate; in the field of solid fuels, stocks have been rising to record levels in the producing countries, reducing the finance available for the investment required to make the Community industry more competitive against imports from outside; and in both primary energy supplies and energy-using equipment the internal market of the Community has hardly been exploited at all. Energy policies have certainly brought their rewards, but they have been far more costly to Member States than they need have been.

10. This situation must now change. The Community cannot continue wasting resources in this way. Better coordination of action at Community level would provide the basis for optimizing the use of physical and financial resources, reducing waste and increasing the flexibility of the energy supply system to everybody's benefit.

Coherence and continuity

11. Optimization cannot be taken for granted, however, as long as Community action is undertaken only in an *ad hoc* and piecemeal fashion. Effective Community action can be assured only through programmes which, where they involve budgetary expenditure, have a minimum level of credibility in terms of the financial resources allotted to them and a framework of continuity over a number of years.

This has not been the case up to now. Community expenditure programmes in the energy field have been restricted largely to technological development which, though of critical importance, is only one element in energy policy. Even some of those programmes, and notably in the demonstration field, have been financed of late on a hand-to-mouth basis.

The result is that many of the gains of Community action have been severely jeopardized.

The same mistakes must not be repeated. Capitalizing on the Community dimension requires setting a stable medium-term framework for a more comprehensive range of activities than in the past.

Guidelines for the programme

12. Four guidelines should be applied in the development of such a programme.

13. The *first* is that specific proposals for expenditure made within it should reflect the results of an assessment of programmes and actions in the fields in question within Member States themselves. The objectives of Community programmes must be to reduce waste and duplication and not risk adding to it, though the existence of high levels of expenditure in some Community countries is not in itself an argument against action at Community level.

National expenditures in the different energy sectors vary a great deal, even taking account of size and geographical factors (Annex 1). The variation in expenditure levels *per capita* and in relation to oil consumption is one further, if imperfect, piece of evidence that equivalence of effort in the pursuit of those objectives is still wanting. Provided that it is accompanied by renewed efforts at national level by those Member States whose vulnerability is the greatest, a medium-term programme of action at Community level would help to encourage greater equivalence of effort, enabling Member States where substantial energy programmes are already in force actually to replace some of their national expenditures with Community finance.

Successful assessment of programmes in Member States requires, however, effective arrangements for a pooling of information about national action at Community level, so that the Commission can perform its monitoring responsibilities with the greatest confidence. Member States have agreed on common objectives for the longer-term. It is only logical that they should facilitate the proper assessment of the adequacy of the instruments which they apply to their pursuit.

14. The *second* guideline is that the Community should not attempt to be a substitute for economic operators themselves. Community action should be directed as a rule at establishing a framework which encourages operators to take the correct long-term decisions in terms of energy supply and use. In many cases that objective can best be achieved by the further development and application of a rational approach to energy pricing, and this must continue to be a fundamental element in Community policy.

But there are cases where pricing policy in itself will clearly be insufficient, particularly at a time of continuing economic difficulty. The pro-

gramme of expenditure should be directed essentially towards them.

15. *Thirdly*, there is no reason why a programme of this kind should be of indefinite duration rolling over from one five-year period to the next; nor of gradually increasing scale or coverage. Quite the contrary. The Commission is proposing a programme intended to build a sound bridge to the medium-term and to avoid the risk of a new energy constraint later in the decade. A successful programme of activities, with expenditure tapering off in real terms towards the end of the five-year period 1984-88, should place the Community in a new situation five years hence where a continued effort through this mechanism may no longer be required.

16. *Fourthly*, while the programme should provide a framework for continuity, it too must avoid rigidity. The Commission intends that there should be regular reviews of progress to decide on the pattern of activities within and between energy sectors and the level of budgetary allocation needed in the later years of the programme. The first of these should take place two years after the programme begins.

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17. The Commission's proposal reflects its desire to see a both more coherent and more professional approach to energy policy at Community level. It means a qualitative change of approach. Without a bold advance of this kind energy policy at Community level will be out of step with the underlying requirements for action.

The content of the programme

18. The medium-term programme will not be based simply on new action. It will be a mixture of measures already approved at Community level, amplified where necessary; measures already proposed and under discussion; and entirely new actions.

The following paragraphs briefly summarize the Commission's suggestions as to the programme's content, under three headings: more rational energy use, prospection, and more balanced development of supplies.

More rational energy use

19. The period following the second oil shock has been marked by a significant improvement in rational energy use, both in the shift from oil to other fuels and in the efficiency of energy use. Some of this improvement reflects the immediate response to the 1979/80 price increases; some the lagged impact of investments made even earlier.

The easy improvements have now largely been made. The outlook for sustained progress in the coming years will depend heavily on the pace of further investment both in immediately applicable technologies and in the development and application of new and more efficient technologies. Such investments are of vital interest to the long-term energy security of the Community. But an acceleration of activity in this wide field would have a more immediate spin-off in terms of employment, economic growth and trade.

20. The scope for such investments is large but there are three main reasons why it may not be adequately exploited. The first is that in difficult economic conditions, where cash is short and profits low, investments in RUE will tend to be displaced by others yielding quicker and higher returns, a problem aggravated by falling oil prices. The second problem is insufficient development and use of new technologies. The third is the low rate of investment in the electricity sector which will reduce the headroom available for solid fuels and nuclear to replace oil and gas.

The Commission believes that Community action should be directed essentially at those three problem areas.

21. In the first (the financial constraints on investment) the Community role should be first of all to identify those investments that should be made in the Community interest but which will not go ahead without support; secondly to identify the most effective and least costly mode of intervention.

The Commission has already begun to perform this role. It made a detailed survey in February 1982 of the barriers to more rational energy use; it encouraged the adoption in July of a Recommendation by the Council to Member States on ways to accelerate the pace of investment; and it subsequently made a highly selective proposal for Community action in the form of interest-rate

subsidies on Community loans for investments in coal conversion, coal preparation, district heating and energy production from waste where there were evidently major problems. Discussions in the Council have demonstrated that the problem sectors are wider than the Commission judged initially. In particular, it is clear that the present approach could usefully be expanded to cover energy saving investment itself and may need further extension later to provide for direct grants as well as interest-reliefs. The Commission believes that the proposed medium-term programme could provide a clearer framework for the early adoption of this proposal, with its necessary changes.

22. As far as technology is concerned, matters are already further advanced. Research and development in this sector (and especially in the fields of energy saving and the use of solid fuels) is already an essential element in the Framework Programme for Science and Technology;¹ it will figure large in the 3rd Energy R & D Programme which the Commission is proposing separately; and it is a key element in the programme for Community demonstration projects which covers energy saving and technologies to increase the outlets for solid fuels in the longer-term (coal gasification and liquefaction), as well as geothermal energy, solar, hydropower and biomass.

Although R, D & D is an area where the importance of the Community dimension has been recognized for some time, in the demonstration field the Council has so far failed to agree on financing for the medium-term despite lengthy discussions since the Commission's proposals² were put forward early last autumn. As in the case of the proposal on interest-rate reliefs discussed above, the Commission considers that consideration by the Council of a pluriannual programme of energy and energy research as a whole should help to provide a better framework for early agreement on a credible level of medium-term financial commitment in the demonstration projects field.

23. Thirdly, the pluriannual programme should provide a framework for elaboration and adoption of measures (e.g. in the technological field) to

¹ Bull. EC 12-1982, point 2.1.173; Bull. EC 5-1983, points 1.3.1 to 1.3.6; OJ C 169, 29.6.1983.

² OJ C 285, 30.10.1982; Bull. EC 9-1982, point 2.1.91.

help expand the markets for solid fuels and nuclear power through greater penetration of electricity from those sources where it is economic and efficient to use it. As a corollary, rational energy use demands the greater integration of the electricity networks in the Community so as to profit from the existence of different patterns of supply and demand in Member States and to minimize the consequences of accidental disruption to supplies. The programme should include measures to that end.

Prospection

24. The Community is now consuming 3 million barrels per day (mbd) less oil than in 1973 and it is importing 5 mbd less, thanks largely to the development of the North Sea. But dependence on imported energy remains high and its economic burden (measured by the net cost of imports in relation to GDP) is the same now (3.8%) as it was in 1974.

It is in the interest of the whole Community to ensure an adequate level of effort in identifying resources at Community level which will help to reduce dependence in the longer-term on more vulnerable and less secure supplies from outside.

25. The companies must clearly be in the lead. They have the expertise and the physical and financial resources. But it is not clear that in the present market conditions they have the motivation to do all that is required.

26. Here too there are three roles for the Community.

The first is a role of analysis and monitoring. The Community's task must be to examine the adequacy of effort and to draw attention to those areas where more should be done.

The second must be to ensure that the gaps are filled in the most economic and effective way. The third is to ensure that the companies have the technology they need.

27. In the hydrocarbons field, exploration by the private sector continues, but is almost wholly confined to areas of established potential such as particular North Sea basins. Because of the current oil market surplus and weakening oil

prices the private sector is not giving priority to investigating new areas of possible future potential within the Community. In the current market climate, they are unwilling and in some cases unable to spend money on higher risk exploration projects; and fiscal changes by Member States would be unlikely of themselves to rectify this. It is however important for the Community's long-term supplies that such areas should be evaluated.

The Commission therefore proposes that a new Community hydrocarbon prospection activity covering both oil and gas (including deep gas) should be included in the pluriannual programme. This would provide both for seismic surveys and for drilling to obtain geological data on a new areas and to identify the presence of hydrocarbon-bearing strata. Its cost, even at its peak, would be modest compared with total oil industry exploration activity in Western Europe (about 7 000 million ECU in 1980).

The Community has been running a programme of assistance to the development of hydrocarbon technology since 1973. The latter has already proved to be of particular value in assisting the exploitation of Community oil and gas reserves in Continental Shelf areas and should clearly continue. New technologies will need to be developed in line with the trend towards smaller discoveries in deeper and hostile waters. Many of the projects financed have been commercially successful and led to substantial reimbursements of Community funds. But there is an increasing number of projects which cannot be assisted or are having to be delayed because of inadequate funds available. The Commission's proposed budget for 1984 therefore includes an expanded allocation of 40 million ECU for this programme.

28. Uranium prospection is another important field where intensified action at Community level could bring large rewards.

Nuclear power will account for over 35% of the Community's electricity supplies by 1990 and that share is likely to grow further. Yet the Community is dependent on the outside world for 80% of its uranium supplies.

The uranium market has shown itself to be highly volatile in the past. At present there is an excess of production capacity world-wide. But this could change quite rapidly as a result of economic factors (closure of high-cost mines) or political factors (notably a change of government in a

major producing country). Community resources must therefore be kept under permanent scrutiny and, when and where justified, developed by *prospecting* efforts. The Commission will therefore continue its review of Member States' proven reserves and estimated resources and extend this action towards more specific targets, making recommendations in addition and as guidance to its direct financial support for specific uranium prospecting campaigns.

At the same time action must be taken to increase the level of exploration activity itself which has fallen to low levels during the last few years. The Commission is proposing 10 million ECU in the 1984 budget to investigate areas already identified as having potential, as a trigger to foster other national and private efforts.

29. The Commission is also considering the possible role for the Community in furthering both hydrocarbon and uranium exploration in areas outside the Community itself, and particularly developing countries. This would have the aim of diversifying the Community's future supply sources and reducing the potential for cartel action by external suppliers.

More balanced development of supplies

30. Action here has to be directed at solid fuels and nuclear as the main alternatives to oil in the medium-term; at gas, where particular questions of flexibility and security arise; and at alternative energy resources as a major contributor to Community supplies in the longer-term.

31. In the field of solid fuels, the present situation is wasteful and incoherent. The penetration by solid fuels has been much weaker than expected in the past, most notably in the industrial sector. Stocks of coal in the coal-producing countries are at record levels (+ / - 60 million tonnes) aggravating the difficult financial circumstances of the industry. At the same time, Member States are importing 70 million tonnes from outside the Community.

32. The right Community approach is outlined in the Commission's separate communication containing proposals for a balanced policy for

solid fuels.¹ Essentially, Community action should be focused on four main areas:

(i) improving technology, especially in developing new, more efficient and cleaner ways of burning solid fuels; in the conversion of solid fuels (gasification and liquefaction) so as to widen the potential market in the longer-term; as well as continuing efforts to improve production technology. Research and development in this sector is an important element in the 3rd Energy R & D Programme; and coal gasification and liquefaction is part of the programme for Community demonstration projects;

(ii) action to deal with environmental problems, notably those arising from solid fuel combustion, which are of a transnational as well as national nature. Specific proposals have recently been submitted to the Council.²

(iii) rationalizing the pattern of supply and demand within the Community by action to encourage the commercialization of stocks and to develop intra-Community trade;

(iv) increasing the economic security of the Community by measures to reduce the costs of Community production and encourage the development of a healthy and more vigorous Community industry. This in itself should help to change attitudes towards the use of coal and other solid fuels.

33. In the nuclear field, there are large expenditures which can only be organized and managed by the operators themselves. But the Community has a role to play in helping to ensure the availability of technology and in addressing some of the major public concerns about this source of energy, notably on the safety side and in the field of nuclear waste.

The Commission believes that pilot schemes should now be undertaken at Community level on storage of radioactive wastes.

This is a good example of a case where expenditure on projects within particular Member States, not likely to be justified by national considerations alone, would provide vital experience and information for the long-term needs of other countries and for the Community as a

¹ Bull. EC 6-1983, points 1.2.16 and 1.2.17.

² OJ C 139, 27.5.1983; Bull. EC 4-1983, point 2.1.85.

whole. In doing so, it will help to clear the way for the increased use of nuclear power.

Similar considerations apply to further efforts in the field of nuclear safety, where Community action is already important, covering such areas as the safety of proven and advanced reactors (fast breeders), health protection, R & D nuclear waste management and storage, and nuclear safeguards.

A further element in Community activity should be some pooling of resources on projects to investigate the problems associated with the decommissioning of nuclear plant. The field of decommissioning is of relevance to the whole Community and not just to Member States with nuclear programmes, because of its implications for electricity tariffs.

34. As far as gas is concerned the role for the Community is to develop a more flexible supply system. Greater flexibility within and between Member States would provide both long-term benefits in reducing the overall cost of deliveries to the consumer and greater protection against disruption. Increased flexibility requires action to encourage greater integration of the delivery systems and stand-by supplies in the form of stocks or surplus production capacity.

The importance of such measures has already been demonstrated in the discussions within the Community about the security of gas supplies (these are summarized in the separate Communication on Community Energy Strategy).¹

This is not at present an area of expenditure in which the Community budget is involved, apart from assistance to some gas storage projects in the UK under line 707 of the 1983 budget (though the Community's loan instruments have of course been heavily involved in financing improvements in infrastructure in the energy sector). But it is one where action coordinated and assisted at Community level through judicious use of budgetary expenditure could bring benefit to the whole of the Community while saving costs incurred by Member States in financing less effective and partial national solutions. The Commission therefore proposes that the pluriannual programme should include measures to promote the greater integration of the Community's gas systems. The Commission is also considering the case for providing assistance for the creation of strategic natural gas stocks which could be used for the benefit of several countries, through a more

flexible and interconnected supply system, but which would not be financially justifiable in the case of a particular Member State looking at national needs alone. Similar considerations may apply to the creation of strategic oil stocks.

35. In the field of *alternative energy resources* the primary Community role is in the fields of R, D & D. But assistance to the financing of investment in large projects involving the application of new technologies in this sector within the Community could be considered where there is a risk that development may be held back by the heavy investment costs in early years and the fact that the economic return would be spread over a very long period of time. One case in point might be tidal energy.

Costs of the programme

36. Taking account of the new activities put forward in the previous section, and possible later proposals, it is likely that the programme would require an expenditure of 1.5-2 000 million ECU a year at its peak in 1986 or 1987, with the higher figure being more likely. The Commission's proposed Chapter 70 energy budget for 1984 of 769 million ECU, together with the proposed energy research budget (excluding fusion) of 177 million ECU, is designed to be a realistic step forward for the first year of the pluriannual programme. A programme on this scale, as already pointed out would help to reduce expenditure by national governments where the activities concerned could be more efficiently carried out at Community level. It would also help to achieve a better overall balance of receipts from the Community budget.

Financing

37. The Commission considers that the achievement of the Community's energy aims requires the introduction of the programme described above. It has examined how such a programme could be financed, taking into account its special characteristics and the difficulties which could

¹ Bull. EC 6-1983, points 1.2.1 to 1.2.4.

arise through recourse to the normal budgetary resources. Given the limited duration of the programme and other possible demands on own resources an alternative – and one which specifically reinforces the Community's policy – would be a tax on energy consumption.

The Commission indicated in paragraph 15 of its proposals on future financing¹ that it was considering the idea of introducing such a tax into the own resources system. Whilst at this stage not wishing to put forward formal proposals to this end, the Commission thinks it appropriate to set out for consideration the outlines of such a tax.

A tax on energy consumption

38. The fundamental objectives of the programme outlined above are improvements in our use of energy and greater security of energy supply. As the achievement of these objectives will benefit all energy consumers, the Commission thinks it appropriate that, if the programme were to be financed by a tax, it should be as broadly based as possible, falling on all energy sources. In addition, in order to reinforce the energy policy objectives, such a tax should ideally fall on all energy consumers (but see the following paragraphs). The Commission would also envisage that the revenue accruing from an energy tax would be hypothecated to the programme, and that its rate would be a function of the expenditures agreed each year by the budgetary authority.

39. Annex 2 attached sets out the estimated value of consumption of the major energy sources – about 230 000 million ECU per year. Clearly, the overall incidence of a tax yielding revenue of between 1.5 and 2 000 million ECU per year on this level of consumption would be very low – well under 1%.

The low incidence of the tax would impose an important constraint on the tax mechanism. If collection costs were to be kept in proportion to the modest revenue targets, the tax should be kept as simple as possible, with the minimum of collection points. The ECSC levy system, applied to less than 500 levy-payers, and which has operated with a minimum of difficulty and cost for 30 years, offers a model of what is possible in this direction. Such a model would imply an energy tax levied on production and on imports.

40. In the interests of simplicity of application, minor energy sources, such as wood, peat, and solar energy would not fall within the scope of the tax, and its coverage would be confined to oil products used as fuels, hard coal and lignite, gas and electricity. Similarly, as electricity is predominantly a secondary energy source, and in order to avoid double taxation, energy sources supplied for the generation of electricity would be exempt from the tax. It is anticipated that exemption for energy sources supplied for electricity generation and for oil products used for non-energy purposes (e.g. naphta, lubricants) could be readily accorded at the point of production, without complicating the tax system.

41. There is, however, a consideration of some importance which seems likely to conflict with the objective of a simple tax. The Commission is conscious of the possible effects of such a tax on the competitiveness of Community industry, particularly in the absence of comparable tax measures amongst our major trading partners. The possible adverse effects should not be overstated. In certain sectors which are particularly heavy consumers of energy (e.g. steel, non-ferrous metals, chemicals) energy costs may in some cases exceed 10% of total costs; but for industry as a whole, energy costs tend to fall between 3-5% of total costs. The impact of a tax of 1% on (say) 5% of total costs is clearly marginal. It could even be argued that, to the limited extent that such a tax did make an adverse impact on industrial costs, it would offer a certain incentive to our industry, over time, to use energy relatively more efficiently than our competitors.

42. Nevertheless, the Commission acknowledges a conflict of objectives between, on the one hand, incentives to more efficient energy use and, in particular, simple and low-cost collection of the tax, and, on the other hand, possible adverse effects on the competitiveness of Community industry and on some sectors in particular.

43. All these considerations are valid, and the Commission feels that it would be unwise to discard from the outset any one in favour or the others. Were it possibly readily to reconcile certain of them – for example to establish a simple

¹ OJ C 145, 3.6.1983; Bull. EC 5-1983, points 1.1.1 to 1.1.6.

tax whilst exempting industrial use – this would be the Commission's preferred solution.

Unfortunately, examination of the possibilities has not so far established any easy means for exempting industrial consumption of energy. Any system dividing consumption into industrial and non-industrial categories, if simple, would be arbitrary, and if equitable, would almost certainly prove complex and difficult to administer.

44. As an alternative, the Commission has considered using the Member States' VAT systems as a means of repaying to VAT tax-payers the energy tax charged to them by producers. One drawback to such a system is that it would extend exemption from the energy tax considerably beyond industrial users – to for example, services and the professions, with a consequential increase in the tax rate (see Annex 3). This effect could of course be limited by refusing the right to claim energy tax against VAT to such categories of VAT taxpayers.

However, such a system would itself be more or less arbitrary. In any case, although the VAT machinery is already to hand, its adaptation to the refunding of energy tax would entail certain costs, both for the national tax administrations and for VAT taxpayers.

Considerable progress has been made in diversifying the Community's energy supplies and in rationalizing energy use. But it would be wrong to suppose that the Community has freed itself from the energy constraint and that the risk of further oil shocks has been averted, with all the damage they would bring to the pursuit of the Community's general economic objectives (growth, employment and balance-of-payments).

The present situation – which is in part at least the result of the efforts of the past – gives us a breathing space in which to consolidate the gains of the past and to protect ourselves for the future. The sensible way to exploit that breathing space is to ensure that energy is a prime beneficiary of the resources freed by the fall in crude oil prices. But an increased effort in the energy sector should be encouraged in such a way as to optimize its results.

A greater role for the Community action would bring this about, enabling an equitable distribution over time between consumer and producers of different energy sources in the Community of the economic rent that has been released by the

fall in oil prices. But this will demand inevitably greater solidarity than in the past.

The proposed programme is focused on areas where the benefits of a transfer of action to the Community are the clearest in present circumstances. But inherent in it is the notion of a *flexible response* to inevitably changing circumstances.

The pluriannual programme has specific aims justifying sizeable expenditure for a limited period of time, with the profile of expenditure rising to a peak and then falling away.

This gives the programme characteristics which have led the Commission to envisage a means of financing that would avoid the difficulties that might be created by recourse to the normal budgetary resources. Those characteristics suggest a means of financing that is flexible but assured for the period in question, such as a special hypothecated tax based on non-industrial energy consumption.

The Commission agrees with the European Parliament in its Resolution¹ of 18 May on the future development of the Community and its financing, that such a tax should not be regarded as a budgetary policy measure. The Commission recognizes that such a tax would constitute an exception to the budgetary principles of the EEC.

The exemption of industrial consumption from a tax of this kind would be possible by recourse to Member States' VAT systems for repayments. But it would be complicated. The simpler alternative of a levy on energy consumption would mean extending the tax-base to industrial consumption, with possible implications for the competitiveness of European industry which need careful consideration.

The concept and method of appropriation of such a receipt would therefore constitute an important innovation in relation to the budgetary techniques at present in force in the Community. The Commission considers that it is important above all to propose the introduction of the pluriannual energy programme. These reasons lead the Commission not to present a formal proposal on the modalities of financing the programme and to continue its work on the concept and mechanics of a tax. The Commission will make appropriate contacts to that end.

¹ OJ C 161, 20.6.1983; Bull. EC 5-1983, point 2.4.11.

National governments' expenditure on energy (25 May 1983)

(million ECU)¹

	B	DK	D	GR	F	IRL	IT	L	NL	UK	EUR-8
1982 :											
Oil	3.6	8.0	77.7			14.4	53.4		1.1	38.9	399.1
Natural gas			32.7		56.4	63.2	49.7				
Solid fuels	192.7	2.0	754.8 ²		934.0	21.0			27.1	718.4 ²	2 650.0
Nuclear	57.6	0.7	732.3		865.5		559.3		35.5	629.8	2 880.7
Electricity, district heating & other	6.2		69.6			..			13.1		88.9
Conservation	56.4	98.0	194.3	17.9 ³	168.2	1.8	430.1	0.01 ³	25.0	256.5	1 230.3
Renewables	7.1	17.0	208.7		62.0	0.4			19.8	42.5	357.5
among which: R & D	52.3 ⁴	30.4 ⁴	1 264.9 ⁴	..	579.5 ⁴	4.0 ⁴	414.6 ⁴	..	60.9 ⁴	392.5 ⁴	2 799.1
Total	323.6	125.7 ⁵	2 070.1		2 086.1 ⁸	100.8 ⁷	1 092.5 ⁶		121.6	1 686.1	7 606.5
id. per toe consumed	7.82	7.48	8.46		12.03	12.71	8.65		2.18	8.99	8.91
per capita	32.8	24.5	33.6		38.6	29.8	19.1		8.6	30.1	29.1
1983 :											
Oil	5.9	0.6	61.0		-	-	-		1.0	27.9	294.0
Natural gas			52.2			31.8	113.6				
Solid fuels	192.7	2.0	(750.0)		1 000.0	53.6			31.1	(700.0)	2 729.4
Nuclear	43.0	0.5	653.1		950.9		416.4		30.8	617.7	2 712.4
Electricity & other	12.8		95.8			..			12.4		121.0
Conservation	126.2	54.0	296.1		174.7	1.0	673.8		23.2	166.3	1 515.3
Renewables	10.9	29.0	222.1			0.4			19.7	27.9	310.0
among which: R & D	89.6										
Total	391.5	86.1 ⁵	2 130.3		2 125.6 ⁸	86.8 ⁷	1 203.8 ⁶		118.2	1 539.8	7 682.1
id. per toe consumed	9.40	5.10	8.7		12.2	10.8	9.5		2.1	8.2	8.9
per capita	39.7	16.8	34.5		39.4	25.2	21.0		8.3	27.5	29.4

Sources: national data, if not otherwise stated.

¹ National currencies converted at January exchange rates.² Memorandum on financial support ... the coal industry in 1982 (COM (82) 817 final).³ Dir. XVII-E: 'National demonstration schemes 1982'.⁴ Statistics published by 'CREST'.⁵ Without investment in exploration and development by concessionaires (1982: 1 853 million ECU; 1983: 1 739 million ECU).⁶ Without 'dotazione' ENEL (1982: 2 475 million ECU; 1983: 2 154 million ECU).⁷ Without investment in the electricity sector (1982: 332 million ECU; 1983: 355 million ECU).⁸ Without investment in the nuclear sector (1982: 3 285 million ECU; 1983: 3 426 million ECU).

Annex 2

Energy consumption (Prices at 1 January 1982)

(Consumption data 1981)

Product	Total value ¹ of consumption (ex tax) '000 million ECU (A)	Value of household consumption (ex tax) '000 million ECU (B)	Value of industrial consumption (ex tax) '000 million ECU (C)	B/A	C/A
1. Gas	40.3	18.2	16.3	45.2%	40.4%
2. Electricity	80.7	27.7	32.2	34.3%	39.9%
3. Coal	11.4	3.9	6.3	34.2%	55.3%
4. Oil	97.3	45.8	27.0	47.1%	27.7%
Total (1 + 2 + 3 + 4)	229.7	95.6	81.8	41.6%	35.6%

¹ Deliveries into consumption for all industrial and non-industrial uses. Non-energy uses are also included except for oil. All deliveries of fuels for transformation into other fuels are excluded.

Annex 3

Incidence of energy consumption tax

	Tax base ³		Assumed tax revenue '000 million ECU	Tax ⁴ incidence
	%	'000 million ECU		
All consumption ¹ of coal, gas, electricity and oil products ²	100	230	1.5	0.65
Industrial consumption exempt	64	147	1.5	1.02
All VAT taxpayers exempt	42	96	1.5	1.56

¹ All deliveries of fuels for transformation into other fuels are excluded.

² Oil products used for non-energy purposes are excluded.

³ Based on prices at 1.1.1982 and on consumption data for 1981.

⁴ On value exclusive of national taxes.