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Working Documents

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DOCUMENT 1-303/82

Report

drawn up on behalf of the Committee on Energy
and Research

on the communication from the Commission of the
European Communities to the Council (Doc. 1-1065/81 -
COM(82) 36 final) on an energy strategy for the
Community: the nuclear aspects

Rapporteur: Mr J. F. PINTAT

PE 78.118/fin.



By letter of 23 February 1982 the President of the Council of the European Communities requested the European Parliament to deliver an opinion on the communication from the Commission of the European Communities to the Council on an energy strategy for the Community: the nuclear aspects.

The President of the European Parliament referred this communication to the Committee on Energy and Research as the committee responsible and to the Committee on Economic and Monetary Affairs and the Committee on the Environment, Public Health and Consumer Protection for their opinions.

On 17 March 1982 the Committee on Energy and Research appointed Mr J. F. PINTAT rapporteur.

The committee considered the communication from the Commission and the draft report at its meetings of 25 February 1982, 29 April 1982 and 26 May 1982.

At this last meeting, the committee decided by 14 votes to 9 to recommend that Parliament adopt the communication from the Commission without amendment and adopted the motion for a resolution as a whole.

The following took part in the vote: Mrs Walz, chairman; Mr Gallagher, first vice-chairman; Mr Normanton, second vice-chairman; Mr Pintat, rapporteur; Mr Calvez (deputizing for Mr Galland), Mr Flanagan, Mr K. Fuchs, Mr Lalor (deputizing for Mr Méo), Mr Linkohr, Mr Pattison, Mr Pearce (deputizing for Mr Beazley), Mr Peters (deputizing for Mr Percheron), Mr Petersen, Mr Petronio, Mr Price (deputizing for Mr Moreland), Mr Purvis (deputizing for Sir Peter Vanneck), Mr Rogalla, Mr Rogers (deputizing for Mr Adam), Mr Saby (deputizing for Mrs Lizin), Mr Sälzer, Mr Seligman, Mr Veronesi and Mrs Viehoff (deputizing for Mr Schmid).

The opinions of the Committee on Economic and Monetary Affairs and the Committee on the Environment, Public Health and Consumer Protection are attached.

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The Committee on Energy and Research hereby submits to the European Parliament the following motion for a resolution, together with explanatory statement:

MOTION FOR A RESOLUTION

closing the procedure for consultation of the European Parliament on the communication from the Commission to the Council on an energy strategy for the Community: the nuclear aspects

The European Parliament,

- having regard to the communication from the Commission of the European Communities to the Council (COM(82) 36 fin.),
- having been consulted by the Council (Doc. 1-1065/81),
- having regard to the report of the Committee on Energy and Research and the opinions of the Committee on Economic and Monetary Affairs and the Committee on the Environment, Public Health and Consumer Protection (Doc.1-303 /82),
- having regard to the result of the votes on the communication from the Commission,
- having regard to its earlier resolutions,

A whereas for countries with high energy consumption levels and no hydrocarbon resources, the significant development of a nuclear programme is a vital necessity,

B whereas a greater contribution by nuclear energy to the energy situation in Europe is bound to relieve the demand for hydrocarbons, thereby facilitating the task of the developing countries for whom oil and gas are still the main sources of energy supplies,

C whereas the current fall in the price of oil is merely a cyclical factor linked to the worldwide economic crisis and whereas this respite seems set to last long enough to enable the industrialized countries to introduce the

alternative energy sources needed to cope with the shortages which will inevitably result from the needs of the Third World and the recovery of worldwide economic activities, so that we must not let ourselves be deceived by the apparent ease of the situation but should begin active preparations for this new phase,

1. Welcomes the contents of the communication from the Commission to the Council on the nuclear aspects of the Community's energy strategy;
2. Hopes that estimates of energy consumption will give greater attention to the probability that private and industrial consumers will switch from fuel oil to electricity;
3. Notes with regret the 50% shortfall on the objectives for nuclear installations established by the Community in 1974;
4. Calls on the Commission to make every effort to ensure that fresh impetus is given to European nuclear programmes and that these installation programmes are the subject of a publication to be updated every two years beginning in 1983;
5. Recommends the Commission to give special consideration to the lower cost of generating electricity from nuclear plants in the context of satisfying new electricity requirements, arising either from the growth of energy demand or from the replacement of higher cost or less efficient generating plants;
6. Recommends that the Commission should investigate and report on the desirability and economic viability of setting up an electricity grid throughout the European Community, with particular attention to the following factors:
 - (a) the reduction in European capital investment from basing supply on the most efficient production methods and by optimizing supply utilization, by exploiting the troughs and peaks in demand between one Member State and another;

- (b) the benefits to Member States with no nuclear electricity generating capacity of electricity supplies from other Member States based on the lowest possible production costs;
7. Hopes that the Commission will be able to make effective approaches to the Member States to encourage them to continue their work on uranium prospecting, particularly outside the Community, despite the current slump in the prices of the concentrated ore, in order to maintain long-term supplies under the best possible conditions;
 8. Approves of the reprocessing of irradiated fuel advocated in the communication, as a means of recycling unused energy materials and also of ensuring the best possible treatment of waste and its storage in complete safety;
 9. Believes it necessary in this context to:
 - (a) increase European capacity for the reprocessing of irradiated fuel,
 - (b) establish an international system for the storage of unused plutonium,
 - (c) encourage the construction or reopening of specialized fuel reprocessing plants capable of processing less common or more specialized types of fuel, such as the Eurochemical Centre at Mol, in Belgium;
 10. Regards the continuation of development programmes for fast breeder reactors as an efficient means of using the plutonium produced in all electricity generating reactors whilst still producing energy and of increasing the energy potential of natural uranium at least fiftyfold;

11. Believes it vital, both to ensure the development of nuclear power for peaceful purposes and to coordinate European activity at top level, for the action undertaken by the Community in the field of nuclear reactor safety to be increasingly stepped up, with programmes of greater use and value; in particular, considers it necessary to call on the institutions responsible to proceed rapidly with the SUPER-SARA project, which is unique in its field and of international interest;
12. Approves of the initiative taken by the Commission to attempt to bring about a revision of Chapter VI of the EURATOM Treaty by reconciling its desire to reinforce genuine security of supplies with essential adjustments to industrial structures and practices;
13. Welcomes the interest shown by the Commission in the management and storage of radioactive waste and, given the duration and cost of storage to be considered, feels that the problem is of international interest requiring the Community to organize cooperation in this field, particularly as regards siting problems;
14. Hopes, therefore, that the Commission will concentrate its efforts on this field and will be able to support the build-up of demonstration stocks, bearing in mind the techniques available;
15. Welcomes the decision taken by the Council on the basis of the Commission proposal to double the amount of EURATOM loans from 1,000 to 2,000 m ECU, but considers that this is still inadequate if account is taken of the potential for nuclear development in the Community;
16. Reaffirms its resolution of 19 February 1982 on the financing of nuclear power stations based on the Walz report (Doc. 1-709/81), which calls on the Commission and Council to amend without delay Decision 77/270/Euratom of 29 March 1977 to the effect that the Commission shall only be empowered to issue loans to finance nuclear power stations if such projects, when sited in frontier regions, have been subjected to the Community consultation

procedure in respect of power stations as proposed by the Commission as long ago as 1977;

17. Hopes that the Community will contribute not only to information on matters concerning nuclear energy and safety but also to the comparison of the risks involved with those of other energy sources;
18. Instructs its President to forward to the Commission and the Council the communication from the Commission as voted by Parliament and the corresponding resolution as Parliament's opinion.

EXPLANATORY STATEMENTI - INTRODUCTION

1. In its communication to the Council on the Community's energy strategy, the Commission has provided a sound synthesis of the problems and the Community measures introduced to deal with them.
2. The section of this study entitled 'the nuclear aspects' is particularly important since it deals with an alternative to oil for electricity generation which is immediately accessible and has been tried and proven in industry.
3. Given the setback experienced on European programmes in this field in relation to forecasts - 50% vis-à-vis the objectives established in 1974 - the external consequences in terms of the cost of energy produced, the balance of payments and employment are now being reassessed.
4. We must therefore take advantage of this brief respite on oil supplies to revive European programmes, which will enable us to cope with the next oil crisis under the best possible conditions.

II - CONTENTS OF THE COMMISSION PROPOSALS

5. The document under consideration by our committee falls into two main sections:
 - the first is entitled 'The general background'
 - and the second 'Community action to tackle the problems'.
6. As regards the general background, the main points raised are as follows:

- (a) Nuclear energy must not be considered in isolation but must be seen in the context of the overall energy situation within the Community;
 - (b) Its contribution must be compared with that of other energy sources without, of course, forgetting the specific problems of this particular energy source.
7. The document also examines the contribution of nuclear energy to the diversification and security of Community supplies.
8. There are other considerations of a general nature concerning the main economic aspects of nuclear energy, i.e. the impact of the development of nuclear energy on the major economic indicators such as the balance of payments, the balance of technology, the competitiveness of the total cost per kWh of nuclear power and the cost of the fuel which, in comparison with other sources of energy, represents a much smaller proportion of the overall cost per kWh produced.
9. The document then examines briefly the prospects for nuclear energy following the latest technological developments. It refers in particular to reprocessing and fast breeder reactors. In this context, it outlines the main conclusions of the INFCE Conference and the Council's resolutions of February 1980.
10. The document stresses that the development of nuclear energy calls for greater Community or international cooperation for reasons connected with supplies of materials and services and with non-proliferation checks.
11. To conclude the first section, reference is made to the determining role of national public authorities in the field of nuclear energy. National public authorities have overriding responsibility for the implementation and completion of nuclear programmes but there is general recognition of the

usefulness of the Community framework in the light of the need for cooperation both at Community and international levels.

12. The second section is devoted to a number of Community measures to solve the problems arising in this sector in as satisfactory a way as possible.

13. The first chapter of the second section is taken up with an investigation of the economic aspects of the development of nuclear power. In this context, the Commission proposes to resume publication of illustrative programmes, on the basis of Article 40 of the EURATOM Treaty, and in particular to launch a series of economic studies at Community level which are referred to in paragraph 25 of the Commission document.

14. The Commission intends to include among its economic studies a special investigation of the following aspects:

- (a) the impact of nuclear energy on the balance of payments, inflation, growth and employment;
- (b) the security of supplies and an analysis of the prospects for the Community's nuclear industry, including the complexities of opening up export markets.

15. As regards the economic issues relating to nuclear energy, the Commission rightly proposes to use the incentives at its disposal, in particular EURATOM loans, the ceiling for which has just been doubled by the Council at the Commission's request.

16. The second chapter concerns the very difficult problem of supplies, touching as it does Chapter VI of the EURATOM Treaty.

17. Three attempts at amending this chapter were made in 1964, 1970 and 1979, but without success. However, it is also clear from the provisions of the Treaty that the founding fathers felt it appropriate to allow for a revision of the situation in the light of developments in nuclear energy on expiry of a seven-year period dating from its entry into effect.

18. The other important factor is that the Commission genuinely believes that the philosophy which inspired Chapter VI in 1958 no longer corresponds to the developments which have taken place in the nuclear industry in the meantime.

19. In paragraph 35, the Commission sets out the basic considerations which led it to reconsider the problem of Chapter VI:

- the principle of non-discrimination to replace the principle of equal access;
- the role of the Euratom Supply Agency and abolition of its monopoly on purchasing and sales;
- problems of external relations in the field of supplies;
- the principle of Community solidarity by means of a specific stock policy;
- the possibility of extending Community participation in the field of uranium prospecting, not only in the Member States but also in non-member countries.

20. The community presence in Vienna should be strengthened as recent international developments have created a situation of tension in the field of safeguards. Three IAEA verification agreements in respect of controls carried out by EURATOM are currently in force.

21. The first agreement was concluded between the IAEA, EURATOM and the eight Member States not equipped with nuclear weapons.

The second agreement was concluded between the IAEA, EURATOM and the United Kingdom.

The third agreement was concluded between the IAEA, EURATOM and France.

22. The management of these agreements is not an easy matter as safeguards are a technically complex and politically sensitive subject.

23. The Commission intends to carry out a very detailed examination of the implementation procedures in the context of these agreements, and is preparing a report which will be ready by the end of 1982.

III - COMMENTS ON THE COMMISSION DOCUMENT

24. It should be pointed out first of all that insufficient attention has perhaps been given to possible switching from one energy source to another and consequently, where price problems are involved for example, to the risk that private and industrial consumers will switch from fuel oil to electricity with all the consequences that could have on energy consumption forecasts. It would doubtless be desirable for greater consideration to be given to this risk and for its consequences to be evaluated.

25. We are well aware of the role which the anti-nuclear groups have played but the delaying and cancellation of many nuclear projects must also be attributed to a lack of political determination and the absence of any clearly enunciated and sustained policy.

26. We must take advantage of the current period of calm in the oil situation to inject new life into these programmes and thereby gain control over the future of European energy supplies.

27. Determination on the part of the competent authorities and series construction based on standardized phases can also make a significant contribution to reducing construction schedules. In France, for example, construction time is of the order of five years per reactor and this has an immediate effect on costs, making nuclear-generated electricity even more competitive.

28. This is all the more advantageous since nuclear energy reduces the cost of imports to Community countries with insufficient fossil fuel resources whilst offering equal kWh output capacity thereby contributing to the stability of Europe's balance of payments for energy.

29. This revival of European nuclear programmes will have to be followed closely and the Commission's announcement that it will step up the publication of illustrative programmes in this field is a good sign.

We propose updated publication every two years.

30. The initial stage in giving fresh impetus to nuclear-generated electricity is to secure fuel supplies. Uranium has the considerable advantage of being easy to store and requiring little space. It is therefore possible for each country to keep stocks equivalent to several years' supply without creating excessive financial burdens. It thus offers a far higher degree of security than oil for which the Member States' stocks are of the order of only three months' supply.

31. This in itself will not result in an end to mineral prospecting outside the Community despite the current slump in the price of concentrated uranium ore. On the contrary, we must pursue Community measures enabling the best possible supply conditions to be maintained in the long term.

32. The revival of nuclear programmes also implies reprocessing of irradiated fuel, an essential stage in the nuclear fuel cycle. Industry has demonstrated its ability to reprocess fuel from light water reactors. More than 400 tonnes of this fuel have been reprocessed at the la Hague plant in France.

33. The extension of Europe's reprocessing capacity should be carried out in relation to the scheduled programme of power stations. Reprocessing is both a way of recuperating fuel for recycling - 97% of the energy matter contained in the used fuel - and also the perfect means of treating waste

material to enable it to be stored in complete safety. It also provides plutonium for use as fuel in fast breeder reactors.

34. This type of reactor is an effective means of using the plutonium produced during the generation of energy in all electricity reactors. This process also makes it possible to multiply by a factor of at least 50 the energy potential of natural uranium.

35. The revision of Chapter VI of the EURATOM Treaty corresponds to a need which has become quite apparent to all those who have had to deal with the problems of supplies. The texts must be adapted to today's reality, i.e. they must take account of essential industrial requirements and guarantee genuine security of supplies.

36. The reprocessing of irradiated fuel enables the storage of nuclear waste to be organized under good conditions. Techniques offering complete safety are already available, particularly as regards the storage of processed fission products in solid form in geological formations (as elements in a type of glass).

The time-scale involved in this type of storage and its cost make it an issue on which international cooperation is desirable. The Community definitely has a research and development role in this field, particularly as regards demonstration stocks.

37. The different international agreements signed by the Commission in the field of safeguards against proliferation are highly satisfactory, particularly the agreements with the International Atomic Energy Agency of the UN.

38. Similarly, the measures taken by the Member States in a national and Community context and by other countries in the field of nuclear safety have been very effective since more than 200 power reactors have been operating for more than ten years with no major radiation accidents. We also have reason to be satisfied with the results obtained in the field of radio-protection and environmental protection and control.

IV - CONCLUSIONS

39. It is good to have a document which summarizes European efforts to develop nuclear energy. It provides an opportunity for countries such as ours to reflect on the vital need for the revival of a major programme for nuclear-generated electricity. The oil market has given us a short breathing space resulting from a temporary period of excess production and we must take advantage of it.

OPINION OF THE COMMITTEE ON ECONOMIC AND MONETARY AFFAIRS

Letter from the committee chairman to Mrs Hanna WALZ, chairman of the Committee on Energy and Research

Brussels, 31 March 1982

Madam Chairman,

At its meeting of 30 and 31 March 1982, the Committee on Economic and Monetary Affairs considered the communication from the Commission to the Council on an energy strategy for the Community : the nuclear aspects (Doc. 1-1065/81)¹.

Within the framework of an energy strategy for the Community and, in particular, of a greater diversification of supplies, the communication from the Commission considers the conditions for a more widespread recourse to nuclear power and outlines the action to be taken at Community level in order to tackle the problems connected with the supply of fuels, the safeguarding of nuclear materials, the protection of workers, the general public and the environment, and information to the public.

The committee, having regard to the economic conditions foreseeable at present, considers that the choice of future investment in large power stations is henceforth reduced to the alternative between nuclear fuel and coal.

According to estimates by the International Union of Producers and Distributors of Electrical Energy, electricity produced from coal is 30-90% more expensive than electricity of nuclear origin.

The result of the nuclear option for undertakings is the possibility of developing in the long run a greater self-financing capacity to the extent that the cost advantage is not entirely reflected in the selling price and, for the Community. A smaller balance of payments deficit and a greater added value within the EEC, which is favourable for employment.

¹ Present:

Mr J. MOREAU, chairman, Mr DELEAU, vice-chairman, Mr ALBERS (deputizing for Mr CABORN), Mr BERSANI (deputizing for Mr COLLOMB), Mr BEUMER, Mr DELOROZOY, Mr I. FRIEDRICH, Mr HERMAN, Mr LEONARDI, Mrs LIZIN (deputizing for Mrs DESOUCHES), Mrs NIELSEN (deputizing for Mr COMBE), Mr NOTENBOOM (deputizing for Mr SCHNITKER), Mr PURVIS, Mr van ROMPUY, Mr TURNER (deputizing for Mr HOPPER) and Mr von WOGAU

Accordingly, the committee approves the Commission's objectives designed to :

1. extract the plutonium as an energy source and recycle it in breeder (or fast neutron) reactors;
2. separate out the highly-radioactive fission products and provide for their treatment with a view to their final storage;
3. seek solutions through multinational cooperation in order to minimize the risks of an increase in the flow of sensitive materials and industrial capacities, in line with the objectives of the Non-Proliferation Treaty.

Please consider this letter as the committee's favourable opinion.

Yours sincerely,

(sgd) Jacques MOREAU
Chairman

OPINION OF THE COMMITTEE ON THE ENVIRONMENT,
PUBLIC HEALTH AND CONSUMER PROTECTION

Draftsman: Dr SHERLOCK

On 1 April 1982 the Committee on the Environment, Public Health and Consumer Protection appointed Dr SHERLOCK draftsman.

It considered the draft opinion at its meetings of 18 and 26 May 1982 and adopted it unanimously with 1 abstention at the latter meeting.

The following took part in the vote: Mr Collins, chairman; Mr McCartin, vice-chairman; Dr Sherlock, draftsman; Mr Balfe (deputizing for Mrs Weber), Mr Bombard, Mr Eisma, Mr Ghergo, Mrs Krouwel-Vlam, Mr Muntingh, Mr Protopapadakis, Mrs Seibel-Emmerling and Mrs Squarcialupi.

1. The aim of this communication is to encourage the Council of Ministers to hold an in-depth political discussion on the prospects for the use of nuclear energy in the Community. The Commission sets out by analysing the context in which nuclear energy should be considered. The second part of the communication is taken up with the proposed approach with regard to the Community's role in this field.
2. However, this committee is concerned with the environmental and public health aspects of the communication. We must, then, consider the problem of nuclear energy from the safety angle paying particular attention to the problem of disposal of radioactive waste.
3. The Commission's approach envisages a greater recourse to reprocessing of irradiated fuels in order to extract plutonium which would then be recycled in fast breeder reactors and to separate out the highly-radioactive fission products which would then be conditioned with a view to final storage.
4. The Commission readily admits that the reprocessing sector gives grounds for concern and is calling on the Council to hold a discussion on the best solutions to be applied to the problems of reprocessing. A greater recourse to reprocessing has a two-pronged effect. On the one hand it reduces the volume of radioactive waste for final disposal thus allowing a greater degree of flexibility in the planning of a strategy for the long-term management of such waste. On the other hand the production of highly enriched uranium and plutonium involves a system of safeguards which in turn give rise to problems of safety of nuclear installations.

As far as the disposal of radioactive waste is concerned the Commission considers that priority must be given to the continuation of this essential research. The European Parliament has already given a favourable opinion on a 5-year programme on radioactive waste management and storage.¹

5. The committee agrees with the Commission's view that safety must remain an essential pre-occupation, but would prefer to reserve its comments in this area until the communication on nuclear safety presently being compiled is made available.

¹ OJ No. C 59, 10.3.1980, p. 16

6. The committee particularly welcomes the extra effort being made by the Commission in the domain of information to the public. Information and consultation are of particular importance when decisions have to be taken on siting of nuclear plants or radioactive waste storage facilities.

CONCLUSIONS

7. The committee looks forward with concern to receiving the communication on nuclear safety which will be drawn up following an internal review of all the Commission's activities in the nuclear safety field. It calls on the Commission, therefore, to ensure that this document is made available to the European Parliament at the earliest possible moment.