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REPORT

drawn up on behalf of the Committee on Energy, Research and Technology

on the proposals from the Commission of the European Communities to the Council (doc. C2-1/85 - COM(85) 29 final) for

- I. a Regulation on the promotion, by the granting of financial support, of demonstration projects relating to the exploitation of alternative energy sources and to energy saving and the substitution of hydrocarbons

- II.a Regulation on the promotion, by the granting of financial support, of pilot industrial projects and demonstration projects relating to the liquefaction and gasification of solid fuels

Rapporteur: Giovanni STARITA

By letter of 7 March 1985 the President of the Council of the European Communities requested the European Parliament to deliver an opinion, pursuant to Article 235 of the EEC Treaty, on the proposals from the Commission of the European Communities to the Council for a Regulation on the promotion, by the granting of financial support, of demonstration projects relating to the exploitation of alternative energy sources and to energy saving and the substitution of hydrocarbons, and regulation on the promotion, by the granting of financial support, of pilot industrial projects and demonstration projects relating to the liquefaction and gasification of solid fuels.

On 15 March 1985 the President of the European Parliament referred this proposal to the Committee on Energy, Research and Technology as the committee responsible and to the Committee on Budgets and the Committee on Economic and Monetary Affairs and Industrial Policy for an opinion.

At its meeting of 22 March, the Committee on Energy, Research and Technology appointed Mr STARITA rapporteur.

The committee considered the Commission's proposals and the draft report at its meetings of 23 May and 16 July 1985.

At the last meeting, the committee adopted the motion for a resolution as a whole unanimously.

The following took part in the vote:

PONIATOWSKI (Chairman), SÄLZER (Vice-chairman), ADAM (Vice-chairman), SELIGMAN (Vice-chairman), STARITA (Rapporteur), BLOCH von BLOTTNITZ (replacing Molinari), BONACCINI (replacing Ippolito), CIANCAGLINI, CROUX (replacing Estgen), KILBY, LIGIOS (replacing Rinsche), LINKOHR, MALLET, METTEN (replacing Lizin), SPAETH, STAES, TOKSVIG, VIEHOFF.

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The opinions of the Committee on Budgets and the Committee on Economic and Monetary Affairs and Industrial Policy are attached.

The report was tabled on 19 July 1985.

The deadline for tabling amendments to this report will be indicated in the draft agenda for the part session at which it will be debated.

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PE 97.962/rev./fin.

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

A

MOTION FOR A RESOLUTION

embodying the opinion of the European Parliament on the proposals from the Commission of the European Communities to the Council for a regulation on the promotion, by the granting of financial support, of demonstration projects relating to the exploitation of alternative energy sources and to energy saving and the substitution of hydrocarbons and for a regulation on the promotion, by the granting of financial support, of pilot industrial projects and demonstration projects relating to the liquefaction and gasification of solid fuels

The European Parliament,

- having regard to the proposals from the Commission to the Council and the evaluation reports on the energy demonstration programme attached thereto
- having regard to its Resolution of 29 October 1982²,
- having regard to its Resolution of 23 April 1982³,
- having regard to its Resolution of 16 December 1983 on the outcome of the conciliation procedure⁴
- having been consulted by the Council pursuant to Article 235 of the EEC Treaty (Doc. C2-1/85)
- having regard to the report of the Committee on Energy, Research and Technology and the opinion of the Committee on Budgets and the Committee on Economic and Monetary Affairs and Industrial Policy, (Doc. A2-82/85)
- having regard to the result of the vote on the Commission's proposal,

¹ OJ No. C 109 of 3.5.1985, p. 3 + 11

² OJ No. C 304 of 22.11.1982, p263

³ OJ No. C125 of 17.5.1982, p175

⁴ OJ No. C 10 of 16.1.1984, p. 313

- (a) whereas the energy demonstration projects programme is an essential instrument of the European Community's energy strategy,
 - (b) whereas short-term fluctuations in market conditions should not be allowed to deflect the Community from the pursuit of that strategy,
 - (c) whereas the European Parliament has repeatedly insisted that the energy demonstration projects programme be established on a multiannual basis,
1. Approves the two proposals from the Commission of the European Communities;
 2. Emphasizes the importance the European Parliament attaches to the continuity of the Community energy demonstration scheme, not only as a tangible expression of Community energy policy, but also as an essential element in the process of launching new technologies;
 3. Approves the multiannual character of the programmes and, without prejudice to the rights and responsibilities of the budgetary authority, the estimated level of finance proposed;
 4. Welcomes the proposal to simplify the procedure whereby decisions are taken on the selection of projects for Community support;
 5. Welcomes, in particular, the proposal to abolish the right of appeal by a Member State to the Council against decisions by the Commission, on the grounds that this right of appeal is inconsistent with the correct division of responsibilities among the institutions of the Community and is a potential cause of harmful delay;
 6. Reserves the right to request conciliation if the Council does not adopt the proposed new decision-making procedure;
 7. Encourages the Commission in its plans for improving the dissemination of the results of the programme and the rate of replication of projects (notably by the development of the data base SESAME, designed to be open for access to all interested parties in the Community), including the new provision in the proposed regulations whereby the Commission may

require repayment of the Community's support if a contractor fails to promote the commercial application of a successfully demonstrated technique, process or product;

8. Endorses the intention of the Commission (expressed in paragraph 35 of the General Evaluation Report) to seek to engage temporary staff to help with the growing workload of the programme and to help stimulate the replication of successful projects throughout the Community;
9. Trusts that, having proposed to omit in future the general repayment requirement which was included in contracts concluded under the provisions of past regulations, the Commission will take steps to ensure that Community support is only granted for projects which would very probably not have been undertaken without it;
10. Requests the Commission, in reporting on the execution of the programme pursuant to Article 10 of each of the proposed new regulations, to give more detail about individual projects, and in particular the technical characteristics of such projects;
11. Points out that the two proposals in question were submitted to the European Parliament without an adequate accompanying estimate of their financial effects as required by Resolution No. 2 of the resolutions and declarations entered in the minutes of the Council's meeting on 22 April 1970, and therefore calls on the Commission to ensure that, in future, documents issued by any of its departments, and particularly the Directorate-General for Budgets, contain a full and thorough statement of the reasons for the funds requested in connection with specific proposals; notes that the failure to provide full financial statements can often preclude the budget authorities from interpreting requests for funds correctly, which could result in their reducing the appropriations proposed;
12. Instructs its President to forward to the Council and Commission, as Parliament's opinion, the Commission's proposal as voted by Parliament and the corresponding resolution.

EXPLANATORY STATEMENT

I. INTRODUCTION

1. The Commission is proposing a new multiannual programme of energy demonstration projects. The proposal takes the form of two regulations. The first concerns projects relating to the exploitation of alternative energy sources, energy saving and the substitution of hydrocarbons. The second relates to the liquefaction and gasification of solid fuels. Since the search for new ways to use solid fuels is itself part of the general effort to find sources of energy which can replace imported supplies of oil, and to use Europe's indigenous energy sources more efficiently, it is clear that both regulations are designed to promote the same energy strategy.

2. The demonstration projects programme, taken as a whole, is the largest item in the energy budget of the European Communities¹. In the 1984 budget, commitment appropriations for energy items other than demonstration projects totalled 62.735m ECU, and this included 20m ECU earmarked for the promotion of energy investments (Article 705), which was never used because of the failure of the Council to adopt the appropriate regulation, and was ultimately used to pay for famine aid to Ethiopia. By contrast, the commitment appropriations for demonstration projects² totalled 87m ECU³.

3. This shows the great importance of demonstration projects in the general context of Community energy policy. It also represents a major commitment to the development and promotion of new, alternative energy sources. By maintaining such an important programme in the field of alternative energy

¹ Excluding special energy measures in the UK and Germany undertaken as the result of budget rebate decisions

² Items 7020, 7021, 7022, 7031, 7032, 7033, 7034 and 7035 and Article 704

³ Initially placed in Ch. 100 of the 1984 budget, as provisional appropriations

sources the Community gives substance to its claim that it is making every effort to avoid the trap of becoming over-dependent on any single type of energy.

4. The Community's energy demonstration projects programme covers the following energy sectors: solar, wind, geothermal, biomass, small-scale hydro-electric, electricity and heating, new technologies for the combustion, liquefaction and gasification of solid fuels and energy saving.

II BACKGROUND

5. The Community programme was originally adopted in 1978. In spite of the programme's successes, it has not had an easy history. When the time came to renew the original Regulation in 1982, it proved very difficult to get the Council to accept the need for a multiannual programme with an adequate level of funding. This culminated in a conciliation meeting between a Parliament delegation and the Council on 22 June 1983.

6. The history of these developments can be read in various parliamentary documents, principally in two reports drawn up for the Committee on Energy, Research and Technology by Mr NORMANTON, on (a) the Commission's 1982 proposals¹ and (b) on the outcome of the conciliation². Another important reference is the report drawn up for the Committee on Budgets by Mr PFENNIG³.

7. The immediate outcome of the conciliation procedure in June 1983 was a decision by the Council to go ahead at once with one-year regulations designed to keep the programme going while decisions on its longer term future were being prepared. These regulations were adopted on 11 July 1983¹. These were subsequently extended for one year by two amending regulations adopted on 23

²Doc. 1-670/82

²Doc. 1-1151/83

³Doc. 1-99/82

¹Council Regulations (EEC) Nos. 1971/83 and 1972/83, OJ No. L195 of 19.7.1983, pp 1-13

July 1984². It is important to note that the principle that the programme should in future be a multiannual one was accepted by the Council in 1983 at the conciliation meeting. The principle was enshrined in the preambles to the two regulations adopted on 11 July 1983³.

8. The two proposals which are now before the European Parliament, therefore, represent a major renewal of this important Community activity. Unlike the 1983 and 1984 regulations, those now proposed involve more than just a routine prolongation of the programme. They represent the opening of a new phase in the Community's quest for innovative solutions to its energy problems.

9. This is not just an act of faith. The past results of the demonstration projects programme have been analysed in two evaluation reports, which are attached to the current proposals⁴. Thus the Commission is following the procedure it observed in 1982, when it published an Assessment Report⁵ about the same time that it proposed renewing the programme.

III THE EVALUATION REPORTS

10. The two evaluation reports concerned, respectively, (a) the whole demonstration programme except for liquefaction and gasification of solid fuels, and (b) liquefaction and gasification of solid fuels. They will be referred here as "the general evaluation report" and "the liquefaction/evaluation report".

²Council Regulations (EEC) Nos. 2125/84 and 2126/84

³See, in each case, the last recital but two of the preamble

⁴COM (85) 29 final/2 and 3

⁵COM (82) 324 final and 324 final/2 and 3

(i) The general evaluation report

11. This report was drawn up by four independent experts, assisted by the staff of DG XVII of the Commission. Their examination mainly covered the 97 projects which had been finished by the end of 1984, out of a total of 376 selected after calls for tender between 1978 and 1982. The experts also took into account trends arising from the calls for tender in 1983 and 1984.

12. The report was prepared by Henry Durand of the University of Paris, with the collaboration of Angelo Airaghi, Finmeccanica, Rome; Hans Hertlein, DFVLR, Köln-Porz, and Morten Lange, University of Copenhagen.

13. As regards the experts' general conclusions¹ two points stand out:

- (i) they insisted that the pursuit of this programme must be encouraged;
- (ii) they laid great stress on "replicability" of projects.

14. In recommending pursuit of the programme, the experts described the programme as "the most important in the world", both in terms of scope and diversity. They said the level of technical and economic success was satisfactory, especially bearing in mind that the recent softening of the oil market had undermined the profitability of many of the types of project involved in the programme. The experts spoke of the need for continuity in the Community programme, subject to:

- more stringency in the basic regulation, the calls for tender and the selection process, "leading to an even greater image of quality";
- a more careful choice of sectoral priorities;
- certain modifications in procedures designed to promote applications of the results of the projects and to introduce greater flexibility in the functioning of the programme.

15. By "replicability", the experts meant a good probability that the equipment or process in a particular project would be taken up and applied by other users after the initial demonstration project itself had been completed. They made the point that this was more important in the long run than demonstrating the commercial or practical viability of any individual project.

¹COM (85) 29 final/2, pp 12-13

Indeed, as they further argued, from the point of view of replicability even a demonstration project which was a failure could, in a sense, be a success. By pinpointing shortcomings in a particular techniques, the project could lead to subsequent replication of an improved version of that techniques.

16. The experts specifically recommended that replicability in the short or medium term should be the absolute priority for the selection of a demonstration project of whatever type¹. Subject to this overriding criterion, they recommended that, in the calls for tender, the various selection criteria should be stated in order of importance.

17. As regards results, the experts said that of 97 projects completed, 58% had been rated successful, another 30% partially successful and only 22% true failures.

(ii) The Liquefaction/gasification evaluation report

18. This report was prepared by DG XVII of the Commission with the assistance of Professory Doctor Kurt HEDDEN, University of Karlsruhe.

19. Liquefaction and gasification of solid fuels present certain differences from the remainder of the demonstration programme. The projects in this sector are much more costly than most of the others, and they need a longer time span in which to be completed. Moreover, since 1982 this part of the programme has been extended to include industrial pilot projects and feasibility studies, which are on a smaller scale than demonstration projects.

20. Between 1979 and 1984, the Commission received 86 proposals, of which 31 were accepted (one of these being subsequently withdrawn by the proposer). Only one project has so far been completed, and this was a small preliminary phase of a large-scale project, which is now in abeyance. Since the start of Community action in this field, the incidence on the Community budget has been as follows: 177.9m ECU in commitment appropriations and 42.7m ECU in payments.

¹ Ibid p5, para 16

21. The evaluation report found that projects in this sector require investments of such a scale that, even when Community aid does not exceed 40%, there is not nearly enough money available for the Community to pay its whole share at once. Therefore projects are often split up into successive phases, and financed accordingly. However, the report finds that "this spreading of funds often turns out to be artificial both technically and economically"². It makes it difficult for the contractors to plan ahead and manage the projects properly. There is a danger that financial risks will not be eliminated but merely deferred.

22. At the same time, the fact that most Member States of the EC were not particularly active in liquefaction and gasification at national level confirmed the need for a sustained Community programme. It was also necessary not to fall behind the United States and Japan. The United States was concentrating on the development of very large capacity gasification projects, whereas in Japan liquefaction had priority.

IV TECHNICAL CONTENT OF THE PROGRAMME

23. The general evaluation report surveyed the various sectors of activity within its terms of reference and approved the continuation of work in all sectors except the comparatively minor agricultural sub-sector of the energy saving programme. Even here, the report pointed out that many of the problems of this sector could be dealt with under other sectors, such as biomass or energy savings in buildings.

24. It is not intended to recapitulate the technical findings and observations contained in the two evaluation reports. In fact, considerably less technical information is given in the general evaluation report than in the liquefaction/gasification report. It is to be regretted that the Commission has not done as it did in 1982 and annexed to the evaluation reports its document containing concise descriptions of each project. Possibly, the Commission has been influenced by the consideration that it may be unfair to present a concise assessment of a particular project within the format of a document which does not allow enough space for a full discussion

³COM (85) 29 final/3, p57, para 4

of the technical and economic problems that had to be surmounted. Nevertheless, it could have been made clear that what was intended was a simple description, and not an evaluation.

25. From the political point of view, it is disappointing not to be given a clearer picture, not only of the techniques which have been used in the various projects, but also of the different categories of project promoter. Past experience has shown that these vary widely: for example, from industrial undertakings to local authorities and schools. It would also have been interesting to have known more about the geographical location of projects: not merely the country, but region or even town.

26. In the opinion of the rapporteur, the general evaluation report is a valuable document which presents an excellent analysis of the achievements of the programme. However, the failure to add further information on specific projects is a step backwards, rather than a step forwards, in terms of the generally acknowledged need to publicise the Community's demonstration projects as widely as possible. To take one example, at one point in the general report there is a fleeting reference to "the (almost) zero-energy house demonstration", which is described as "quite impressive". This presumably relates to a particular project, about which it would have been interesting to have had more information. None, however, is given.

27. Turning to techniques of the liquefaction/gasification report, the rapporteur draws attention to the useful concise summary evaluation of the various major categories of technology in these sectors in the final paragraph of the evaluation report.

V THE NEW PROPOSALS

28. **Levels of finance.** The Commission has put a figure of 700m ECU on the new five-year programme, of which 545m ECU would be spent on the general projects and 155m ECU on liquefaction/gasification.

29. By an extraordinary and inexplicable lapse, the Commission has failed to attach Financial Statements to its proposals for the two new regulations. The Committee was obliged to insist on Parliament being provided with these Financial Statements. That this was necessary is all the more regrettable

because of the efforts which Parliament has made in the past to ensure that the demonstration projects programme received an adequate level of finance. Moreover, in view of the size of the proposed new multiannual programme, it is obviously appropriate for the budgetary authority to be as fully informed as possible about its likely cost.

30. The following table shows the Commission's spending plans for the new programme:

Commitment appropriations foreseen by the Commission (MECU)

	General projects	Liquefaction/gasification
1986	99	28
1987	104	29
1988	109	31
1989	114	33
1990	119	34
	545	155

31. The Commission explains in the Explanatory Statement to its proposals that the total of 700m ECU is arrived at by allowing 100m ECU per year over five years (this being roughly the level of commitment appropriations which the programme has recently attained) and then adding 200m ECU to allow for the entry of Spain and Portugal into the Community plus inflation.

32. The budgetary authority is not bound by expenditure estimates entered among the provisions of regulations. In view of the scope and importance of the demonstration projects programme, the Commission's financial estimates are by no means too high. It has always been the position of Parliament that the programme should receive enough funding to be realistic and credible.

33. **Decision-making procedure.** The Commission is proposing to simplify the procedure for making decisions on the granting of support to projects. Under the existing regulations, an ultimate faculty of decision is reserved to the Council. This is because, at present, any Member State disagreeing with a decision of the Commission has the right to refer it to the Council within a period of 20 working days. In fact, the Council has never blocked a Commission decision on technical grounds. The Commission considers that this

existing right of appeal to the Council is inconsistent with the correct allocation of responsibilities among the institutions of the Community. It is, moreover, a waste of time. This is an important consideration where the demonstration projects programme is concerned. In the past, it has been the victim of too many inter-institutional disputes over decision-making powers of one type or another.

34. It is considered that at this promising juncture, when this important programme is being renewed on a multiannual basis, everything possible should be done to enable the Commission to execute the programme smoothly and swiftly.

35. **The repayment question.** In the past, contracts with project promoters have included a clause requiring repayment of the Community's aid in the event of the project becoming a commercial success. The Commission is now proposing to drop this provision.

36. The fact that subsidies were repayable has always appeared to be a point in favour of the demonstration projects programme. It was taken as a sign of the Commission's determination to make this Community activity as cost-effective as possible. It seemed to guarantee that, in the end, the Community's participation would secure the best possible results with the least possible outlay.

37. In practice, however, the situation regarding repayment has been more complicated than might have been expected, and less satisfactory. In its Explanatory Statement to the current proposals the Commission says that out of 804 projects selected for support since 1978, about 100 had been completed by the end of 1984. Of these, about half were said to be "contractual successes", in that they met the technical and economic objectives specified in the contracts. The Commission said repayment had started in respect of 20 of those projects. Obviously this is a very small proportion of the total number of projects which the Community has supported. It follows that the monies received in repayment have not so far contributed very substantially to enhancing the cost-effectiveness of the operation, which in any case can be better judged by different criteria. For example, an "unsuccessful" project can help to discourage initiatives based on a particular technique that has been shown not to work. The independent experts responsible for the general

evaluation report point out that monitoring the repayment situation for all projects represents a large workload for the Commission services responsible for this programme. This is on top of all the work they have to do on other aspects of the execution of the programme, such as evaluating the large number of projects presented in response for each call for tender.

38. The experts also pointed out that repayment discriminated between two types of project promoter. On the one hand there are "producers", who hope to make a profit in the long run by selling the type of energy installation which is the subject of the initial demonstration project. On the other hand there are "users" who may be bodies such as hospitals, for example, who undertake the project in the hope of effecting savings, rather than profits. Clearly there is something unreasonable about treating both cases in the same fashion.

39. Other points are that the present system penalises success, that it encourages pessimistic reporting of results and that, finally, this repayment procedure is not normally a feature of national schemes run by the separate Member States.

40. It has never been the case that the monies recouped under the repayment arrangements were ploughed back into the demonstration projects programme. They became part of the general revenue of the Commission.

41. It is accepted that the above arguments are very strong. The Commission ought to take sufficient precautions to prevent possible abuse of the programme once the repayment stipulation has been removed. The philosophy behind the demonstration projects programme is that the availability of Community aid should be the critical factor which persuades promoters to go ahead with projects which they would not otherwise have felt able to undertake. Care must be taken to avoid the programme coming to be regarded as just another source of finance for people who have projects that they fully intend to promote in any case.

42. It is to be noted that in the Financial Statement relating to the new regulations no mention is made of the incidence on the Budget of the suppression of the repayment provision.

43. On the other hand, a new repayment provision which the Commission is proposing in Article 6(3) of each of the two new regulations, is warmly to be welcomed. It provides that the Commission may require repayment if a contractor fails to 'secure in appropriate fashion the commercial development of the successfully-demonstrated technique, process or product'. This is vital for project replication.

O P I N I O N

(Rule 101 of the Rules of Procedure)

of the Committee on Budgets

Draftsman : Mr TOMLINSON

At its meeting of 13 May 1985 the Committee on Budgets appointed Mr Tomlinson draftsman of the opinion.

The Committee considered the draft opinion at its meeting of 18 June 1985 and adopted the conclusions unanimously.

The following took part in the vote :

RYAN (1st Vice-chairman and acting chairman), TOMLINSON (draftsman),
BARDONG, Mrs BOSERUP, CATHERWOOD, CHRISTODOULOU, CORNELISSEN, EYRAUD
(deputizing for COT), Mrs FUILLET, NORMANTON, PAPOUTSIS, PITT, PRICE
(deputizing for M.J. ELLES), RIGO, ROSSI, Mrs SCRIVENER, STEVENSON
(deputizing for Mrs HOFF), VON DER VRING, van der WAHL (deputizing for
CICCIOMESSERE).

The Committee on Budgets

1. Deplores the fact that these two proposals were forwarded to the European Parliament without any accompanying Financial Statement.
2. Cannot accept as adequate the so-called Financial Statement communicated to the European Parliament by the Commission on 2nd May 1985.
3. Notes that the only financial information available to the European Parliament is a statement of overall indicative commitment appropriations as follows:

	Demonstration projects relating to the exploitation of alternative energy sources, and to energy savings and the substitution of hydrocarbons	Pilot industrial projects relating to the liquefaction and gasification of solid fuels
1986	99 Mio ECU	28 Mio ECU
1987	104 Mio ECU	29 Mio ECU
1988	109 Mio ECU	31 Mio ECU
1989	114 Mio ECU	33 Mio ECU
1990	119 Mio ECU	34 Mio ECU
	<hr/>	<hr/>
	545 Mio ECU =====	155 Mio ECU =====

4. Deplores the fact that the Commission did not base its proposals on sound financial details thus making it even easier for Council to envisage considerable cuts in the proposed appropriations; points out that only in the annual budgetary procedure the final amounts will be fixed by the budgetary authority.
5. Finds it unacceptable that the Budget Committee should be expected to give an opinion on a programme supported by such inadequate financial information - information which amounts to little more than a guess and which gives no indication of the distribution of expenditure between different aspects of the programme.

6. Notes the repeated demands in the evaluation reports for better dissemination of the results of the programmes and greater replication of successful projects and urges that these aspects are given a very high priority. As evidence of this draws attention to Para 28 "... the measures taken so far to stimulate these replications are not enough. It is noted that the UK national programme, in which over 2000 replications have been achieved, devotes about 33% of its demonstration budget to this objective, whereas the Commission has only been applying 0.03%".
7. Welcomes, within the limits of financial information available, the Commission's intention to engage temporary staff to meet the Evaluation Reports' comment that 'the programme will come to a halt for want of sufficient personnel' and urges that these staff have as a priority the aims of improving dissemination and replication and the evaluation of projects.
8. Approves the multiannual character of the proposals but cannot, in the absence of better financial information, give any view on the adequacy or otherwise of the levels of finance proposed.
9. Welcomes that the proposals for regulations observe the independent decision making power vested in the Commission by the Treaty and that the procedure of appeal to the Council is not included.
10. Asks the Committee on Energy, Research and Technology to call for the conciliation procedure should the Council depart from the decision making proposals of the commission in any way.
11. Welcomes, in principle, the proposal not to retain in the new regulations the 'reimbursement in the event of success' feature of the existing regulations especially as this provision appears to lead some contractors to report pessimistically upon the results of projects in order to avoid reimbursement. Notes, however, that this change should lead to more cases calling for dissemination and replication and that in the absence of a proper financial statement there is no

knowledge of what is the cost to the programmes in terms of foregone reimbursement of this proposal.

12. Trusts that, with the multi-annual nature of the proposed new regulations, future calls for tenders should be 'open tenders' and that this will dramatically reduce the high level of pre-contract abandonment of selected, proposed projects which has been experienced to date.

O P I N I O N

(Rule 101 of the Rules of Procedure)

of the Committee on Economic and Monetary Affairs and Industrial Policy

Draftsman : Mr RAFTERY

On 26 March 1985 the Committee on Economic and Monetary Affairs and Industrial Policy appointed Mr Raftery draftsman of the opinion.

The Committee considered the draft opinion at its meeting of 18 June 1985 and adopted the conclusions unanimously.

The following took part in the vote :

SEAL (Chairman), BISMARCK (Vice-Chairman), RAFTERY (Draftsman), BEUMER, BONACCINI, CASSIDY, FALCONER, Ms van HEMELDONCK, HERMAN, IVERSEN (replacing Mrs de MARCH), MATTINA, MUHLEN (replacing von WOGAU), Mrs NIELSEN, ROGALLA, WEDEKIND,

I. ASSESSMENT OF THE PREVIOUS PROGRAMMES

Since 1978, the Commission has been pursuing a demonstration programme in the exploitation of alternative sources of energy and in the fields of energy saving and the substitution of hydrocarbons, as well as a programme on demonstration projects relating to the liquefaction and gasification of solid fuels.

As the current Council regulations in this area were approaching the end of their period of validity, which will expire at the end of 1985, the Commission asked a team of experts to draw up a report assessing the impact of these demonstration programmes.

1. In the field of alternative energy sources and to energy saving and the substitution of hydrocarbons

The assessment of this programme is largely positive, whether the implementation of the programme is considered in general terms, or in terms of individual sectors.

(a) Overall implementation of the programme

Launched in the period between two severe energy crises, the demonstration programme set out to encourage the application of innovative technologies which would make it possible to use energy more efficiently and, as a corollary, progressively reduce the Community's dependence on oil.

The Community programme of demonstration projects operates through financial incentives designed to ease the transition from the most risky phase in the introduction of new technologies in the energy sector, in other words real-scale testing of economic and technical viability.

As a complement to the national programmes running in the ten Member States, the financial support granted under the Community programme has made a key contribution. In the period since 1978, 800 proposals or projects have been accepted out of the 3,000 submitted and 100 projects have already been completed.

These projects were selected by the Commission, assisted by an advisory committee. The success rate is relatively high, with 46% of the projects regarded as total successes and 22% as partial successes. About 25% of the projects were abandoned prior to completion. Even the few clear failures have their value in demonstrating what will not work and why, so that wasteful duplication by others can be avoided.

Happily, the principle of 'fair returns' does not seem to apply to the implementation of the programme, and the Commission has sought to encourage the wider application of successful projects. Indeed, one of the major criteria for measuring the success of a project is the extent to which its results have been publicized and its uptake in other parts of the Community. As for the share of costs borne by the Community, the average is about 40%, with a permitted maximum of 49%.

In general terms, the authors of the evaluation report emphasize the need to guarantee the long-term continuity of the programme, especially at a time when it might appear tempting, in the light of current economic trends, to relax efforts in this area. Despite the increase in oil production in the OECD countries, the Community will continue for the foreseeable future to be heavily dependent on imported oil and, consequently, very vulnerable to changing supply patterns and price fluctuations.

Finally, the programme is likely to result in savings of energy and should therefore be continued. The experts believe that technological advances will make it possible to save 150m ton oil equivalent (toe) per year over the next fifteen years.

(b) Applications in individual sectors

Three categories of projects are covered in the programme.

As far as energy saving is concerned, one of the most promising sectors is in design and insulation of buildings, where energy consumption could be halved. So too is the transport sector, which accounts for 50% of the EEC's oil consumption and where the fuel consumption of motor vehicles could be reduced by between 20% and 30%. Considerable savings have also been achieved as a result of using residual heat in the power industry (urban heating) and communal central heating projects.

The projects involving alternative sources of energy (solar energy, biomass, geothermal energy, wind energy, small-scale hydro-electric power) have proved interesting, although their implementation may in some cases be more complex than had been anticipated. These projects must be continued, even if alternative sources are unlikely to cover more than 2% of the Community's needs by 1990, and between 3% and 5% by the year 2000. It should be pointed out that geothermal energy is the only one of these sources which can be stored in large quantities.

Lastly, the projects involving the substitution of hydrocarbons centre mainly on the use of solid fuels which are both efficient and of greater environmental acceptability.

2. In the field of liquefaction and gasification of solid fuels

(a) Aim

This programme, which was also launched in 1978, is very different from the previous one, particularly with regard to the size of the plants, the very high investment costs and the long lead times. It concerns mainly above-ground gasification to produce synthesis gas, methanol and substitute natural gas (SNG), but also underground gasification and solid fuel liquefaction processes.

Moreover, of the 21 projects financially supported by the Community, 14 concern above-ground gasification, 2 underground gasification and 5 liquefaction.

(b) Assessment

The present community programme covers the whole range of conversion routes and processes. However, two-thirds of the projects selected by the Community concern above-ground gasification.

Considerable investment is generally required for research in the field of gasification and liquefaction of solid fuels, and several years are needed for its industrial applications.

Thus, in underground gasification the reverse combustion technology has run into serious difficulties, and, despite considerable improvements liquefaction processes for the production of motor fuels are still too expensive, given the current price of hydrocarbons.

The Commission is therefore in favour of financing pilot projects that require less investment and make it possible to move on to the industrial or demonstration stage.

The Commission is also in favour of financing, as far as possible, not only projects submitted by undertakings intending to market processes for the centralized production of large quantities of gas for heat generation or for chemical synthesis, but also projects requested by users of these technologies.

Lastly, the Commission stresses that, given the magnitude of the investments required, a new Community programme having a lifetime of five years is an absolute necessity.

It also calls on the Member States to pool their know-how and resources, particularly with regard to underground gasification. Most of the projects currently in progress are in fact multinational. Despite the uncertainty surrounding industrial applications of this research, the

Commission rightly stresses their effects in terms of energy saving, diversification and the Community's self-sufficiency in energy supplies and their impact on industrial development, job creation and protection of the environment. This research will undoubtedly offer economic openings even though these may at times seem remote.

In the United States, research work is centred on very large gasification projects. In Japan, where investments for such research are steadily increasing liquefaction is given priority. The Community must therefore ensure that its research work does not slacken in these areas, given that the Member States' programmes are fairly modest. Otherwise, the Community's self-sufficiency in energy would once again be threatened if hydrocarbons became more expensive or rare, and Japan could establish its supremacy over the Community in these technologies.

II. ANALYSIS OF THE NEW PROPOSALS FOR A REGULATION

The two new regulations on the renewal of the demonstration programme in the energy sector have drawn various lessons both from the experience acquired since these programmes were launched and from the suggestions put forward in the two evaluation reports.¹

1. The criteria

To keep to the essential points, the list of conditions which must be satisfied by the demonstration projects (Article 3) makes reference not only to the innovatory nature of the project, but also to its potential industrial and commercial viability and above all to the ease with which it can be replicated, particularly in other parts of the Community. It is evident that the scale on which a project may be commercialised will also depend to an extent on what progress is made in the completion of the internal market (especially as regards standards). The criterion of 'uptake' is in fact the real measure of the success of the programme and uptake has been shown to be influenced by the amount of the budget used to promote commercialisation (33%

¹ COM 29 (85) fin 2 and 3

of the budget of the United Kingdom's national demonstration programme is devoted to dissemination of results, as opposed to just 0.03% in the Community programme, and already Britain has achieved 2000 replications).

2. Repayment

Persons responsible for the execution of projects were formerly obliged to repay the financial support granted by the Community where their projects proved to be a success. Under the new proposal for a regulation, repayment has become a penalty, to be imposed, at the Commission's discretion, in cases of failure to exploit commercially the successful outcome of a project (Article 6(3)). This change would seem to be a sensible one, since it was not uncommon for the contracting parties to submit pessimistic reports, in order to avoid the obligation of repayment. Furthermore, repayment is generally not required under national programmes. However, it can equally be argued that a producer who makes a profit from marketing a successful product or process should, in the normal course of events, repay to the Community the financial support that he received.

3. Volume of appropriations

The Commission proposes an amount of 545 m ECU for the programme on alternative sources of energy and of 155 m ECU for the programme on liquefaction and gasification of solid fuels, making a total of 700 m ECU to cover the necessary financial support and operating expenditure (Article 11). Given the importance of this programme it is not out of place to question whether this estimate is sufficient. Because there is so much at stake, the budgetary authority should not be bound too rigidly by it.

It should also be possible to allocate the resources of the NCI and EIB to these projects, especially during the marketing stage, for this would encourage their wider application thus boosting their impact on energy saving.

The Commission estimates that these two programmes, if successful, could result in a 30% saving on present consumption of fuel by about the year 2000, equivalent to approximately 100 bn ECU, and would therefore have a particularly beneficial effect on the Community's balance of payments.

4. Duration of the regulation

Unlike the previous regulations, the new regulations will apply until 31 December 1990. This is a more satisfactory arrangement, allowing greater continuity and, in particular, making it possible for invitations to tender to extend over a whole year instead of the present three or four months.

It would greatly help the programme on alternative energy sources and energy saving if, as the Commission suggests, the national programmes and the Community programmes were merged, thereby obtaining greater efficiency at lower cost.

CONCLUSIONS

The Committee on Economic and Monetary Affairs and Industrial Policy

1. Points to the Community's dependence in the energy sector and to the vulnerability of its supplies, in terms of both quantity and price;
2. Considers that the latest assessment of the demonstration programme which the Commission has been pursuing in the exploitation of alternative sources of energy and in the fields of energy saving and the substitution of hydrocarbons is a highly positive one;
3. Points out that the programme, if continued, could offer promising prospects for the future, making possible a saving of something like 30% on current oil consumption by the end of the century and have a beneficial effect on the Community's balance of payments;
4. Underlines too that the transformation of solid combustibles, especially coal, into gasified and liquified products, will represent an important alternative source of energy for the future; approves consequently the follow-up, (absolutely indispensable considering the cost of instruments and the long time span required for commercialisation), of the Community programme of financial support to multinational projects in the field of surface and underground gasification;

5. Takes the view that research and demonstration projects aimed at reducing energy consumption is a particularly appropriate subject for a coherent, long-term Community policy which ensures, in all circumstances the energetic independence of the Community and constitutes a factor of competitiveness, employment and environmental protection;
6. Approves, therefore, the provisions contained in the two proposals for a regulation, especially as regards
 - the 'replication' of projects, their widespread application and large-scale marketing in the Community,
 - the exclusive power of decision of the Commission after consultation of the Advisory Committee as to the selection of projects, according to Article 205 of the EEC Treaty,
 - the five-year span of the future programme;
7. Considers, however, bearing in mind the need for and the importance of the programme, that the total of 700 m ECU proposed by the Commission should not be regarded as binding on the budgetary authority, and that additional financial resources in support of these projects, particularly to encourage their widespread application, should be sought through the NCI, the EIB and the ECSC (Art. 55);
8. Points out finally that success in replicating the projects on a large scale in the Community is also dependent to some extent on the effective completion of the internal market, especially in the matter of standards, and strongly urges the Commission to do everything in its power to encourage the coordination of national programmes with the Community programmes, in the interests of greater efficiency at lower cost;
9. Approves the two proposals for a regulation, subject to the above considerations.

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