

COMMISSION OF THE EUROPEAN COMMUNITIES

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REPORT FROM THE COMMISSION TO PARLIAMENT AND THE COUNCIL

on the application of Regulation (EEC) No 3056/73 on the support of
Community projects in the hydrocarbons sector

(Application of Article 10 of the above Regulation)

COM(82) 374 final

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I. INTRODUCTION

1. On 9 November 1973 the Council of the European Communities adopted Regulation (EEC) No. 3056/73 on the support of Community projects in the hydrocarbons sector¹⁾.
2. The subsidies granted under the Regulation, repayable if the results of the project are exploited commercially, are intended to promote such activities of prospecting for, producing, storing, or transporting hydrocarbons as are likely to improve the security of the Community's energy supplies.
3. Pursuant to Article 10 of Regulation 3056/73, which provides that "the Commission shall submit an annual report on the application of this Regulation to the European Parliament and the Council, which shall express its opinion on the report", the first report covering the implementation of the first series of projects granted financial support, was published in December 1976²⁾. A symposium in Luxembourg in April 1979 highlighted the first results attained. The detailed record of the symposium was published in two volumes³⁾. A further report appeared in May 1980⁴⁾ and the present report analyses the progress made in implementing this support programme up to 31 December 1981.

II. IMPLEMENTATION OF PROGRAMME

4. Since 1973, 410 Projects promoted by 240 Community businesses have been submitted in reply to the Commission's invitation to apply for financial support.

1) OJ L 312 of 13 November 1973

2) COM(76)709 Final

3) Doc. EUR 6299

4) COM(80)260 Final

Following a Commission proposal, the Council granted a total of 240 million ECU in financial support to cover the completion of 242 of these projects¹. On average the Community provided 35% of the finance for each project.

5. The Regulation provided that any financial support granted could take the form of loans, loan guarantees, or subsidies repayable under certain conditions. In fact, the formula applied to all the contracts was that of a subsidy repayable in the event of the results of the project being commercially exploited.
6. In accordance with Art. 5.2 of the Regulation, the main criteria used by the Commission in selecting projects to submit to the Council were as follows:
 - i) The contribution the project would make towards increasing the Community's resources in hydrocarbons;
 - ii) the amount of innovative technology to be used as compared with the state of the art;
 - iii) the nature and extent of the risks involved and the project's estimated profitability;
 - iv) the technical capacities and financial situation of those responsible for the project.

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- 1) - Council Decision of 19 December 1974 on the support of Community projects in the hydrocarbons sector (Doc. R/3600/74);
 - Council Decision of 4 May 1976 on the support of Community projects in the hydrocarbons sector (Doc. R/854/76);
 - Council Decision of 25 October 1977 on the support of Community projects in the hydrocarbons sector (Doc. R/2416/77);
 - Council Decision of 30 October 1978 on the support of Community projects in the hydrocarbons sector (Doc. R/2671/78);
 - Council Decision of 29 October 1979 on the granting of support for Community projects in the hydrocarbons sector (OJ L 281 of 10 Nov. 1979);
 - Council Decision of 27 October 1980 on the granting of support for Community projects in the hydrocarbons sector (Doc. 10142/80 ENER 111);
 - Council Decision of 27 October 1981 on the granting of support for Community projects in the hydrocarbons sector (Doc. 10024/81 ENER 114).

The Commission first ascertained that the projects would not have been undertaken or would have been subject to long delays had they not received financial assistance from the Community.

To avoid duplication by other techniques concurrently being developed, the Commission persuaded companies to cooperate and, where necessary, to form associations to carry out certain projects.

Finally, greater operating safety and the state in which installations had been maintained were also taken into account.

7. The amount of support granted, which under the Regulation was not to exceed 50% of total investments, was fixed on the basis of the risks incurred in each project and the expected results as regards securing supplies.

Projects likely to increase supplies substantially or to speed up the exploitation of the Community's resources received maximum support (40%). Transport and storage projects and projects for the development of services (which are important because they often help to eliminate obstacles to production) were given slightly lower rates of support (25 - 35%). In all cases the aim was to achieve a multiplier effect in order to limit the Community's financial contribution to the minimum.

8. Support was given to all aspects of advanced oil technology from geophysical prospecting to drilling techniques and from production in deep water or difficult environments (particularly arctic zones) to pipeline transportation and underwater storage tanks.

In the last few years particular attention has been paid to enhanced recovery or heavy oil production techniques aimed at rapidly bringing into production resources in known deposits which have remained unexploited so far because there are no appropriate techniques.

9. As can be seen from Annex I, Table 1, about 70% of the support made available has gone to production techniques and 17% to transport; the remainder has been divided between prospecting, exploration and storage. Enhanced recovery and the treatment of heavy oils, the latter sector which received little support to start with, has now been granted 44% of the appropriations available for the latest series of projects (1981).
10. Most of the companies receiving financial support are in the oil-related sector, i.e. engineering companies and manufacturers of special equipment. The latter have been responsible for the design and construction of oil installations, whilst trials under actual production conditions were carried out by the oil companies; the latter alone can decide on the criteria to be satisfied by the engineers' technological developments and they own the oilfields on which the equipment could be perfected. Their share of the support granted by the Community came to about 30% of the total.

III. PRELIMINARY RESULTS

11. A project normally takes three to four years to complete and two more years are required before a new technique can be exploited commercially. So far, therefore, any assessment of the results will be only partial and will cover only some projects launched during the first four years (1974-1978).

The results already seem to be very substantial. A detailed analysis is given in Annex II. Among the most significant achievements the following are worth mentioning:

- a) the sub-sea pipeline laying trials in the Straits of Messina and the Sicilian Channel have resulted in a completed sub-sea pipeline linking Algeria and Italy. The pipeline came into service at the end of 1981;
- b) the installation of drilling equipment on board the dynamically positioned drill ships "Petrel", "Ben Ocean Lancer" and "Pèlerin"

- which are capable of drilling at sea at great depths (up to 1,000 m); exploration programmes using these vessels began in 1978;
- c) in the field of deep-sea production, the use of articulated columns, floating platforms, risers and underwater storage containers, the results obtained so far also show that an underwater production system operated entirely by remote control is viable;
- d) the completion of pilot projects involving the enhanced recovery of hydrocarbons; the data obtained should mean that in the near future it will be possible to perfect industrial sale techniques for enhanced recovery, thereby improving the rate of recovery from currently exploited fields.

IV. DISSEMINATION OF INFORMATION

12. The information obtained by carrying out Community projects belongs to the company directing the project. Nevertheless, that company is expected to use a significant part of the information obtained to the advantage of the Community, or to have it so used by others. In particular, the company undertakes to give priority to obtaining for individuals of Community origin, and for Community companies, the equipment and services based on these results, and to do so on non-discriminatory terms and conditions. The company also undertakes to use all appropriate methods to inform the above persons and companies of the availability of the results.
13. To ensure a wider dissemination of any results obtained, the Commission for its part has used the following methods:
- the symposium in Luxembourg in 1979, which was attended by about 500 delegates from 25 different countries. In all, 72 reports and memoranda were presented and discussed at the symposium;
 - the publication of progress reports on the various projects.
- The most recent report of this type will be issued in April 1982;

- the regular holding of special meetings to which are invited representatives of companies active in a specific sector of the oil industry. At these meetings a great deal of information is exchanged with a view to getting companies to cooperate on certain projects.

V. FINANCIAL SITUATION

14. Figures setting out the financial situation with regard to the seven series of projects which have obtained Community support are given in Annex I, Tables 2, 3 and 4.

Commitments

15. With the exception of 543,644 u.a. in 1976 (a sum corresponding to non-differentiated appropriations not used by the contractors) all appropriations for commitment entered in the budget have been used.

During the five years for which the programme has been running, Council decisions were never adopted until the end of the year which meant that large sums were always carried forward to the following financial year.

Since 1979 the date by which applications for support have to be submitted has been brought forward and the Commission's and Council's decision-making procedures have been speeded up so that the totals carried over were reduced to 1,215,604 EUA in 1980 and 4,690,047 ECU in 1981.

Payments

16. As regards appropriations for payment, the most typical feature of which since 1974 has been 'a persistently low rate of utilisation¹⁾', the situation has now improved and no appropriations were carried forward at the end of the 1981 financial year. Steps were taken to ensure that appropriations for payment would be used in full in future.

1) Annual report of the Court of Auditors for the 1979 financial year, p. 127, paragraph 8.7

17. Where the payment rates per project series is concerned, Table 3 sets out the situation as at 31 December 1981. It will be noted that, for the seven series of projects financed, 69.1 million ECU of the 212.5 million contracted by the end of 1981 still have to be paid to the beneficiaries. This means that between 9 June 1975, the date when the first support contract was signed, to December 1981, the last date covered by this report, 67.5% of Community support committed under contract was paid out to recipients. This is an improvement of 12.7% over the previous report, that for 1980.

Repayment of support

18. Article 4 of Regulation No. 3056/73 states that Community subsidies are repayable under certain conditions. When the results of a project begin to be commercially exploited, the Commission sets a timetable for the repayment of capital and interest. Repayments are entered as revenue in the Community budget.

19. On 31 December 1981, 66 of the 242 Council approved projects had been completed with the following results:

- 23 projects involving subsidies of 41.2 million ECU have become total or partial commercial successes and should result in the repayment of 21.1 million ECU, i.e. 51.2% of the subsidies granted;
- in the case of 34 projects, where the subsidies amounted to 42.3 million ECU, the technical work has been completed as set out in the programmes and the companies responsible for the projects are working on the commercial application of the results. Some of these projects will give rise to repayments;
- 9 projects which received a total subsidy of 5.2 million ECU have suffered technical setbacks and, in accordance with the provisions of Regulation 3056/73, there would be no repayments.

20. As it sometimes takes quite a long time before the results can be exploited commercially, the real subsidy repayment rate can only

be assessed once a fairly long period of time has elapsed. Table 4 of the Annex sets out the repayments position for the first three series of projects:

- i) first series (1975): 15.1 million ECU, i.e. 43% of the subsidy of 35.1 million ECU originally paid out, has been repaid;
- ii) second series (1976): 3.5 million ECU, i.e. 15.2% of the original 22.9 million ECU, has been repaid;
- iii) third series (1977): 2.5 million ECU, i.e. 10% of the original 25.5 million ECU, has been repaid.

For the three series of projects taken as a whole, therefore, the average subsidy recovery rate is 25%; the rate of technical setbacks is no more than 6%. The balance, 69%, represents projects whose commercial exploitation is in the process of being sought.

As interest on the subsidies is payable from the time a project is commercially exploited, the total due in interest on the three series of projects taken as a whole is already 9.4 million ECU.

- 21. Of the 21.1 million ECU that companies have agreed to repay, 6.1 million have already been transferred to the Commission. The balance will follow in accordance with a schedule of repayments.

VI. CONCLUSIONS

22. What is emerging from eight years of applying the hydrocarbons technology programme is positive. The techniques we need to improve our chances of recovering new resources have been improved, and exploration for and production of oil and natural gas in the Community have been speeded up.
23. On the basis of the experience the Commission has gained, it wishes to draw the attention of Parliament and the Council to the following aspects of the programme which it feels could be improved:

(a) Programme guidelines

The Commission considers that the time has come for a critical assessment of the results achieved. It proposes that independent experts, in consultation with government experts, should reexamine the entire programme, and particularly the balance between the costs incurred and the benefits obtained by the Member States. The report should be available in 1983. This would enable the Commission to work out any new guidelines that may be required for the further programme.

(b) Management of contracts

The negotiation and contract management procedures have been constantly improved; in consequence, administrative delays have been reduced considerably and better use has been made of the appropriations entered in the budget. Every effort will be made to introduce further improvements along the same lines in order to ensure that the management of the programme is increasingly effective.

(c) Level of support

The sum set aside for these subsidies, which was 25 million U.A. in the first two years of the programme and was as much as 50 million EUA in 1977, constantly decreased thereafter to level out at 23 million ECU in 1981 and 1982. The Commission considers that, whilst awaiting the conclusions of the study proposed in (a) above, the amount entered in the budget for subsidies to the hydrocarbons sector should not be less than 25 million ECU per year.

TABLE 1

BREAKDOWN OF PROJECTS PER SECTOR OF ACTIVITY

ANNEX I

| | Prospecting | Drilling | Production Techniques | Assisted Recovery | Transport | Storage |
|-----------------------------------|-------------|-----------|-----------------------|-------------------|------------|-----------|
| <u>First series (1975)</u> | | | | | | |
| Subsidy granted (in U.A.) | 432 000 | 9 380 000 | 13 790 360 | 1 883 673 | 11 945 926 | 1 482 000 |
| Number of projects | (1) | (2) | (6) | (2) | (4) | (1) |
| <u>Second series (1976)</u> | | | | | | |
| Subsidy granted (in U.A.) | 3 287 933 | 1 483 200 | 20 913 651 | 7 358 101 | 1 353 500 | - |
| Number of projects | (3) | (1) | (18) | (5) | (3) | (-) |
| <u>Third series (1977)</u> | | | | | | |
| Subsidy granted (in U.A./ EUA) | 605 344 | 2 160 528 | 29 376 876 | 3 399 101 | 5 663 303 | 290 246 |
| Number of projects | (4) | (1) | (19) | (3) | (4) | (1) |
| <u>Fourth series (1978)</u> | | | | | | |
| Subsidy granted (in EUA) | 1 055 450 | 4 281 599 | 19 517 390 | 4 881 513 | 5 091 159 | 1 864 769 |
| Number of projects | (5) | (4) | (21) | (5) | (5) | (3) |
| <u>Fifth series (1979)</u> | | | | | | |
| Subsidy granted (in EUA) | 354 059 | - | 10 996 650 | 2 082 395 | 9 323 705 | 158 875 |
| Number of projects | (2) | (-) | (10) | (2) | (8) | (1) |
| <u>Sixth series (1980)</u> | | | | | | |
| Subsidy granted (in EUA) | 1 732 299 | - | 16 434 162 | 6 331 584 | 1 749 120 | 1 849 999 |
| Number of projects | (4) | (-) | (21) | (5) | (5) | (1) |
| <u>Seventh series (1981)</u> | | | | | | |
| Subsidy granted (in ECU) | 301 046 | 445 895 | 9 707 578 | 11 441 194 | 1 114 161 | - |
| Number of projects | (1) | (1) | (13) | (12) | (6) | (-) |

ANNEX I

TABLE 2

COMMITMENTS POSITION AT 31 DECEMBER 1981

| Year | APPROPRIATIONS AVAILABLE | APPROPRIATIONS COMMITTED |
|------|--------------------------------------|--|
| 1974 | 25 000 000 u.a. | committed at 31 December 1975 = 25 000 000 u.a. |
| 1975 | 25 000 000 u.a. | committed at 31 December 1975 = 13 914 816 u.a. |
| | <hr/> 50 000 000 u.a. | remainder = 11 085 184 u.a. |
| | | <hr/> 50 000 000 u.a. |
| 1976 | Remainder from 1975 11 085 184 u.a. | committed at 31 December 1976 = 10 541 540 u.a. |
| | 28 000 000 u.a. | committed at 31 December 1976 = 24 574 725 u.a. |
| | <hr/> 39 085 184 u.a. | remainder = 3 425 275 u.a. |
| | | remainder from 1975 not used because projects withdrawn 543 644 u.a. |
| | | <hr/> 39 085 184 u.a. |
| 1977 | Remainder from 1976 3 425 275 u.a. | committed at 31 December 1977 = 3 425 275 u.a. |
| | 50 000 000 u.a. | committed at 31 December 1977 = 19 048 886 u.a. |
| | <hr/> 53 425 275 u.a. | remainder = 30 951 114 u.a. |
| | | <hr/> 53 425 275 u.a. |
| 1978 | Remainder from 1977 27 959 378* u.a. | committed at 31 December 1978 = 27 959 378 u.a. |
| | 35 000 000 u.a. | committed at 31 December 1978 = 8 846 918 u.a. |
| | <hr/> 62 959 378 u.a. | remainder = 26 152 082 u.a. |
| | | <hr/> 62 959 378 u.a. |

ANNEX I (cont'd)

*) This is equivalent to 30 951 114 u.a. in non-differentiated appropriations.

TABLE 2 (cont'd)

| Year | APPROPRIATIONS AVAILABLE | | APPROPRIATIONS COMMITTED | |
|------|-----------------------------|-----------------------|-------------------------------|-----------------------|
| 1979 | Remainder from 1978 | 26 291 642 EUA | committed at 31 December 1979 | = 26 291 642 EUA |
| | | 15 000 000 EUA | committed at 31 December 1979 | = 6 446 480 EUA |
| | reassessment of commitments | 950 000 EUA | remainder | = 9 503 520 EUA |
| | | <u>42 241 642 EUA</u> | | <u>42 241 642 EUA</u> |
| 1980 | Remainder from 1979 | 9 503 520 EUA | committed at 31 December 1980 | = 9 503 520 EUA |
| | | 20 000 000 EUA | committed at 31 December 1980 | = 18 180 979 EUA |
| | reassessment of commitments | 220 000 EUA | reassessment of commitments | = 823 417 EUA |
| | | <u>29 723 520 EUA</u> | remainder | <u>1 215 604 EUA</u> |
| 1981 | Remainder from 1980 | 1 215 604 EUA | committed at 31 December 1981 | = 1 187 965 EUA |
| | | 23 000 000 EUA | committed at 31 December 1981 | = 23 293 141 EUA |
| | transfer | 4 000 000 EUA | writing-down of commitments | - 17 659 EUA |
| | reassessment of commitments | 937 890 EUA | remainder | 4 690 047 EUA |
| | | <u>29 153 494 EUA</u> | | <u>29 153 494 EUA</u> |

TABLE 3

PAYMENTS SITUATION AT 31 DECEMBER 1981

| Project series | Total Commitments in EUA | Payments | | | | | | | Remainder due ECU |
|----------------|--------------------------|------------|-----------|-----------|-----------|-----------|-----------|-----------|-------------------|
| | | 1975 u.a. | 1976 u.a. | 1977 u.a. | 1978 EUA | 1979 EUA | 1980 EUA | 1981 ECU | |
| 1st series | 36 577 152 | 25 466 715 | 5 156 310 | 477 847 | 3 703 647 | 2 123 | - | 267 787 | - |
| 2nd series | 31 466 349 | - | 9 444 637 | 5 596 653 | 2 914 136 | 2 135 189 | 2 699 361 | 144 836 | 5 545 031 |
| 3rd series | 37 740 187 | - | - | 5 307 287 | 5 508 855 | 7 193 187 | 5 384 933 | 2 070 531 | 7 532 467 |
| 4th series | 31 565 372 | - | - | - | 4 144 897 | 5 810 593 | 4 302 213 | 5 931 679 | 9 251 032 |
| 5th series | 22 528 739 | - | - | - | - | 2 408 023 | 4 711 383 | 1 948 637 | 12 511 536 |
| 6th series | 29 285 129 | - | - | - | - | - | 5 443 320 | 6 128 249 | 15 688 302 |
| 7th series | 23 293 141 | - | - | - | - | - | - | 4 762 431 | 18 530 710 |

ANNEX I (cont'd)

TABLE 4

SUBSIDY REPAYMENTS - SITUATION AT 31 DECEMBER 1981

(in ECU)

| Projects | Sums paid to beneficiaries | Subsidy | | Repayment | | Interests on repayments due | Total repayments (4+6) | Recovery rate (3 : 1) |
|-------------------|----------------------------|------------------------------|---|------------------|-----------|-----------------------------|------------------------|-----------------------|
| | | non-recoverable ¹ | recoverable ² under certain conditions | Due ³ | Settled | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1st series (1975) | 35 074 429 | 294 118 | 29 436 844 | 15 080 348 | 3 253 447 | 6 255 916 | 21 336 264 | 43.0% |
| 2nd series (1976) | 22 934 812 | 2 549 566 | 7 628 059 | 3 490 812 | 1 249 657 | 1 725 438 | 5 216 250 | 15.2% |
| 3rd series (1977) | 25 464 793 | 2 417 493 | 4 118 483 | 2 538 617 | 1 604 743 | 1 437 900 | 3 976 517 | 10.0% |
| TOTAL | 83 474 034 | 5 261 177 | 41 183 386 | 21 109 777 | 6 107 847 | 9 419 254 | 30 529 031 | 25.3% |

- 1) Amount of subsidy accounted for by technical setbacks
- 2) Amount of subsidy accounted for by projects which were a total or partial technical success and which are going on to be commercially exploited
- 3) Amount of subsidy accounted for projects which are a commercial success

TECHNICAL RESULTS OF THE PROJECTS

1. 1975 - 1st Round Projects

The most significant results were obtained in the areas of pipelaying in deep sea drilling and in deep water production techniques.

The pipelaying tests in the Straits of Messina and the Sicily Channel carried out by SNAM were directly responsible for proving the viability of deep water pipelaying in the Mediterranean and have led to the construction of the gas line from Algeria to Italy which will carry 12 billion m³ of natural gas per year.

In deep sea drilling, several new pieces of equipment, especially the drilling equipment of the drillship "Petrel", were developed by GERTH (Groupement européen de Recherches technologiques sur les Hydrocarbures). This development included major advances in deep-sea blow out preventer controls, re-entry sonar and various drilling tools. This project has led directly to the ability of Community companies to drill in up to 1,500 m water depths.

In deep sea production, studies were carried out by GERTH, which led to the construction of the GRONDIN underwater test station. This was the first test made on a live field of a totally underwater production system designed for deep water.

2. 1976 - 2nd Round Projects

In deep sea drilling support was given to develop several novel aspects of the dynamically positioned drill ships "Pelerin" (GERTH) and "Ben Ocean Lancer" (Ben Odeco). The development of these two vessels added considerably to the ability of Community companies to drill for hydrocarbons in a deep water hostile environment.

The second round of projects marked the beginning of interest in novel production systems. As a result of work done in this round, one Community contractor, VICKERS OFFSHORE, has been involved in the design of the world's first tethered buoyant platform for the HUTTON field in the North Sea. Also, another Community company, BRITISH PETROLEUM, is developing a deep water gas production system.

Excellent results were obtained in the area of natural gas technology and Community support has succeeded in putting PREUSSAG and SALZGITTER in the forefront of LNG developments offshore.

This round also marked the emergence of enhanced recovery technology, and a very successful pilot project was carried out by GERTH on the CHATEAURENARD reservoir. If the results of this project prove applicable on a wide scale, the recoverable reserves of the Community will be substantially increased; estimates of the increase range from 10 to 50 million m³ of oil.

3. 1977 - 3rd Round

In production technology a major project carried out by GERTH has led to the development and testing of components for a deep water production system. Every aspect of the system has been brought to a stage where a suitable field is now being sought on which to confirm the results of component tests. A valuable offshoot of this programme has been the further development of the J-curve pipelaying method, which is of major importance.

PREUSSAG continued to develop their experience in gas technology by carrying out a comprehensive examination of offshore liquefaction of natural gas, a novel aspect of this programme is the development of an offshore LNG loading arm. This project will have many applications in North Sea marginal field development.

Three enhanced recovery programmes were successfully completed by AGIP, BRITISH PETROLEUM and GERTH. These programmes not only give European oil companies hands on experience of this very important technology but should, in the medium term (5 years), lead to an increase in recoverable reserves. Estimated range from 20-100 million m³ of oil.

A novel pipeline compression station was successfully developed by BORSIG; this system has been installed on a test basis on a pipeline and is proving very successful.

4. 1978 - 4th Round

Drilling technique was improved by GERTH for drilling horizontal wells. This technique has proved very successful and will be used shortly to develop the Rospo Mare field in Italy.

Production technology was very much to the fore in this round; an insert wellhead was successfully developed by SHELL INTERNATIONAL and is presently under test. BRITISH GAS have successfully developed a fluidised gas bed to enrich heavy oil; this development has already attracted the interest of some Japanese gas companies.

The enhanced recovery sector grew for the third successive year and although some of the projects have yet to be completed, in general the results have been very encouraging.

In pipeline technology, a project to develop a cryogenic flexible by COFLEXIP is about to attain its objective. This development will have enormous potential, especially in the area of offshore loading of liquid natural gas and various natural gas liquids.

