

# COMMISSION OF THE EUROPEAN COMMUNITIES

COM(92) 467 final

Brussels, 9 December 1992

Proposal for a

## COUNCIL DECISION

**amending Decision 77/270/Euratom, to authorize  
the Commission to contract Euratom borrowings  
in order to contribute to the financing required for improving  
the degree of efficiency and  
safety of nuclear power stations in certain non-Member countries**

(presented by the Commission)

EXPLANATORY MEMORANDUM

- The Community and the Member States have decided to make a concerted effort at G-24 level to support the process of economic and social reform undertaken by the countries of Central and Eastern Europe and by the CIS countries.
- Both the PHARE (Council Regulations 3906/89 and 2698/90, in favour of the countries of Central and Eastern Europe) and TACIS (technical assistance to the CIS, European Council Decision of 14 and 15 December 1990, Council Regulation 2157/91) programmes rate energy as one of the key sectors in the restructuring and regenerating process to improve the organization and operation of the economy whilst respecting the principles of a market economy. The stated positions of the Council have acknowledged that nuclear safety should be one of the priority areas for technical assistance.
- In those countries of Central and Eastern Europe and of the CIS which use nuclear energy, it is Soviet-designed nuclear power stations that are in service and/or under construction. In those countries, nuclear energy meets the following proportions of electricity requirements: in the former USSR, 12%; in Hungary, 50%; in Bulgaria nearly 40%; and in Czechoslovakia, 28%.
- The European Council held in Lisbon on 26 and 27 June 1992 invited the Council to consider granting Euratom loans to contribute to improving the degree of efficiency and safety of the nuclear power stations in the countries of Central and Eastern Europe and of the CIS.
- The nuclear power stations in service and/or under construction fall into two quite separate families:  
  
RBMKs (graphite-moderated pressure-tube type boiling-water reactor) and  
VVERs (pressurized-water reactors).

RBMKs are located in CIS republics (15 stations, each of 1 000 MW) and in Lithuania (2 stations, each of 1 500 MW). These reactors are of the "Chernobyl" type. An extensive debate at international level is currently under way to examine whether investments could be made to make them safer and therefore keep them in service, for the time being at least, or whether they should be closed down and decommissioned.

There are three generations of VVERs:

- \* 440/230-type VVERs of 440 MW: ten units are still in service, four in the CIS (Kola and Novovorone), four in Bulgaria (Kozloduy) and two in Czechoslovakia (Bohunice). Moreover, in Armenia there are two units which have been shut down for four years and which the government wants to bring back into service.

This generation of reactor is much criticized, but its decommissioning would present such serious problems for the energy sector and the economy as a whole in the countries concerned (as is also the case for the RBMKs) that, subject to carrying out the changes agreed at international level, their continued operation is indispensable.

They will probably remain in service for a few more years, supported by additional investment tranches of several tens of millions of ecus.

- \* 440/213-type VVERs of 440 MW: fourteen units are in service (four in the CIS, four in Hungary and six Czechoslovakia) and 4 are under construction (Czechoslovakia).
- \* 1000-type VVERs of 1 000 MW: eighteen units are in service (sixteen in the CIS, and two in Bulgaria). There are twenty-five units under construction (twenty-one in the CIS, two in Bulgaria and two in Czechoslovakia). This generation of reactor is more advanced than the others in that it uses a leakproof pressure containment shell to surround the nuclear island; in other respects, however, it is still inadequate.

- The general level of efficiency and safety in all these power stations is inadequate. They must be brought up to standard (in full or in part, according to circumstances) in order to avoid an accident, which would have serious consequences for the entire continent. If the countries of Central and Eastern Europe and of the CIS are to carry out the reforms entailed by the process of economic restructuring, then they must at the moment retain the electricity production of their existing nuclear power stations, as other sources of energy fall well

short of meeting their energy requirements. These countries are therefore generally committed to the continued operation of these power stations.

- The power stations in question are currently being studied under programmes which are being run by the International Atomic Energy Agency (IAEA), Vienna and the World Association of Nuclear Operators (WANO); the Community is also conducting studies under the PHARE and TACIS programmes.

The international community is asked to direct all its expertise at an exhaustive analysis to identify the design and operational weaknesses of these reactors. In addition to the emergency projects which have already been undertaken, such as staff training, housekeeping and assistance to the safety authorities, the programmes currently under way will result in proposals for modifying and/or replacing equipment essential for improving the efficiency and safety of these power stations, thus enabling their continued operation at an acceptable level of safety.

- Following the launch of the PHARE and TACIS programmes of assistance, the Community allocated ECU 72.7 million to assistance for the nuclear energy sector in 1990 and 1991. This amount breaks down by country as follows:

Bulgaria ECU 12.7 million; Czechoslovakia, ECU 7 million; Lithuania, ECU 0.5 million; Poland, 0.3 million; and the CIS, ECU 53 million.

The amounts relate only to the study phase, i.e. software, improving operational safety and support for the safety authorities.

- The G-7 meeting in Munich, on 6-8 July 1992, reiterated the importance of improving nuclear safety in the countries of central and eastern Europe and of the CIS.

As part of the TACIS assistance programme, the Commission will propose, by the end of 1992, an ECU 100 000 000 programme and a programme for at least the equivalent sum in 1993. The 1992 regional programme should cover the drawing-up of a five-year steering plan to determine

modifications to and close-downs of nuclear power stations, and coordinate the work of the G-24 and the multilateral organizations, permanent assistance on-site to improve the running and maintenance of the units, financing projects of the International Science and Technology Centre in Moscow, and pursuing activities of a generally similar nature already in hand.

As regards PHARE, the actions started in 1991 will continue, in conjunction with TACIS, under an ECU 20 000 000 regional programme.

- Bringing the power stations of these countries up to standard will ultimately depend on carrying out the changes recommended by the projects and studies currently under way. Work to modify or replace existing equipment or introduce very costly new sophisticated equipment must therefore be carried out as it is essential if these power stations are to continue to operate. The investment required would be at least ECU 10 000 million, staggered over a period of approximately 8 years.

Moreover, if conversion work on any of the nuclear plant is not considered feasible in technical or economic terms, that plant will be closed down and decommissioned.

- The scale of the problems involved in the process of economic and social reform is such that the countries of Central and Eastern Europe and of the CIS are unable to find the necessary financial resources to begin the industrial phase of improving the efficiency and safety of their nuclear power stations.

It is therefore necessary to call on finance from other sources.

The Commission should consider financing via Euratom loans.

Decision 90/212/Euratom fixed the ceiling for Euratom borrowings at ECU 4 000 million. At 31.12.991, ECU 2 876 million of this limit had been taken up.

In view of the slowdown in the nuclear energy sector, it is unlikely that there will be strong demand for the remaining finance from nuclear energy projects in the Community in the immediate future.

The Community could therefore use a large part of the Euratom borrowing facilities currently available to help to improve the efficiency and safety of nuclear power stations in the countries of Central and Eastern Europe and of the CIS.

It is planned to create a guarantee fund to cover the financial commitments of the budget to non-member countries. This fund would be financed by the payment of 14 % of the capital amount of each new transaction. Loans granted to non-member countries under the Euratom Decision will be subject to this mechanism as soon as it comes into force.

Since the EIB is already responsible for managing Euratom loans within the Community, the Commission and the EIB will jointly examine ways in which this remit could be extended to the countries of Central and Eastern Europe and the CIS.

The application of this Decision to financing improvements in the degree of efficiency and safety of nuclear power stations in the countries of Central and Eastern Europe and in the CIS will comply with the attached guidelines.

Euratom funding for Member States will continue to be governed by the guidelines set out in the Council minutes with regard to the basic Decision 77/270/Euratom.

Proposal for a

**COUNCIL DECISION**

**amending Decision 77/270/Euratom, to authorize  
the Commission to contract Euratom borrowings  
in order to contribute to the financing required for improving  
the degree of efficiency and  
safety of nuclear power stations in certain non-Member countries**

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

HAVING REGARD to the Treaty establishing the European Atomic Energy Community, and in particular Articles 1, 2, 172 and 203 thereof,

HAVING REGARD to the proposal from the Commission,

HAVING REGARD to the Opinion of the European Parliament,

WHEREAS the European Atomic Energy Community was created to establish the conditions of safety necessary to eliminate hazards to the life and health of the public; and whereas the Member States have expressed the desire to associate other countries with their work and to cooperate with the international organizations concerned with the peaceful development of atomic energy;

WHEREAS the Community and the Member States have decided to make a concerted effort at G-24 level to support the process of economic and social reform undertaken by the countries of Central and Eastern Europe and of the CIS, and have decided on measures to give economic aid to these countries;

WHEREAS these countries have nuclear installations whose level of safety is inadequate and whose malfunctioning could have repercussions on the entire continent; and whereas these countries are committed to the continued use of nuclear energy;

WHEREAS the Community is duty bound to commit the requisite resources to enable it to meet the expectations of the public in the Member States in terms of the safety and quality of the environment; and whereas, in particular, action must be taken in the countries of Central and Eastern Europe and of the CIS to modify certain existing nuclear installations or, if need be, to dismantle others which it would not be feasible in technical or economic terms to bring up to standard,

WHEREAS projects undertaken by the Community under the PHARE and TACIS programmes to improve the level of safety of the nuclear installations comprise inter alia studies to identify areas of weakness and to put forward appropriate corrective measures; and whereas the technical assistance will result in proposals to modify some of the nuclear installations in service or under construction and to shut down and decommission others; and whereas it is in the Community's interest that this work be carried out;

WHEREAS the Community must encourage these projects to be carried out whilst promoting cooperation with industry in the Member States;

WHEREAS the investment required to bring up to standard the nuclear installations in the countries of Central and Eastern Europe and of the CIS is on such a scale that these countries are unable to undertake it although the problems require urgent solutions;

WHEREAS there is good reason for calling on all available financial resources; whereas to this end there is good reason for amending Decision 77/270/Euratom, authorizing the Commission to contract Euratom borrowings to finance investment in the nuclear energy sector, in order to extend the scope of the Decision to cover countries involved in the PHARE programme and those of the Commonwealth of Independent States so that the efficiency and safety of their nuclear power stations can be improved;

WHEREAS Decision 90/212/Euratom fixed the ceiling for Euratom borrowings at ECU 4 000 million, and at 31.12.1991 ECU 2 876 million of this limit had been taken up, and whereas following the slowdown in the nuclear energy sector and the changes in nuclear energy policy by some Member States, there will not be a strong demand for the remaining finance from nuclear energy projects in the Community over the next few years;

WHEREAS the recipient countries will act as guarantors to the loans granted by virtue of this Decision, and/or other first-class securities will be obtained,



HAS DECIDED AS FOLLOWS

Sole Article

The first Article of Decision 77/270/Euratom is replaced by the following:

"First Article

The Commission is authorized to contract, in the name of the European Atomic Energy Community (Euratom), and within the limits fixed by the Council, borrowings whose proceeds will be allocated in the form of loans to finance, within the Community, investment projects relating to the industrial production of electricity in nuclear power stations and to industrial installations in the nuclear fuel cycle.

The Commission is also authorized to contract, within the same limits, borrowings whose proceeds will be allocated in the form of loans to finance conversion work on the nuclear power stations of non-Member countries involved in the PHARE programme and those of the Commonwealth of Independent States (CIS), in order to improve the efficiency and safety of these installations. For these projects to be eligible they must:

- relate to nuclear power stations or installations in the nuclear fuel cycle which are in service or under construction, or to the decommissioning of nuclear installations where modification is not feasible in technical or economic terms;
- have received all the necessary authorization at national level and in particular the agreement of the safety authorities;
- have received a favourable opinion from the Commission in technical and economic terms;

- involve close industrial or commercial cooperation with at least one Community enterprise.

The Commission may borrow only within the limits of loans requested of it.

The borrowing and corresponding lending operations are to be denominated in the same monetary unit and are to be carried out under the same conditions as repayment of the principal and interest payments. Costs incurred by the Community in concluding and executing each operation are to be borne by the recipient undertakings."

Done at Brussels, (date)

FINANCIAL IMPLICATIONS

The draft Decision concerns extending the scope of an existing Decision (77/270/Euratom): the granting of Euratom loans is extended to investments to improve the degree of efficiency and safety of nuclear power stations in certain non-Member countries, under the ultimate guarantee of the General Budget of the European Communities.

The draft Decision is considered to have no direct affect on the General Budget, except in the event of default by the recipients or their governments, who will be asked to act as guarantors.

ANNEX TO DRAFT DECISION 92/DEF/EURATOM

A

GUIDELINES RELATING TO THE FINANCING REQUIRED FOR  
IMPROVING THE DEGREE OF EFFICIENCY AND SAFETY OF  
NUCLEAR POWER STATIONS IN CERTAIN NON-MEMBER COUNTRIES

(Text to be inserted in the Council minutes)

The guidelines contained in the Council minutes relating to Decision 77/270 shall apply to Euratom loans to Member States. As regards operations to contribute to the financing required for improving the degree of efficiency and safety of nuclear power stations in the countries of central and eastern Europe and of the CIS, the Council invites the Commission to follow the guidelines below.

I BORROWINGS

-----

- a) The costs involved in contracting the borrowings must correspond to those paid by category-one issuers, and the Commission shall take all the necessary steps to ensure that the Euratom borrowings benefit from the same favourable conditions as those enjoyed by other Community borrowings.
- b) Given the type of investment to be financed, the borrowings must be contracted over as long a time scale as possible; short- or medium-term loans may also be concluded should such a requirement be expressed by the enterprises concerned.
- c) As far as possible, the repayment schedule of the borrowings shall be accompanied by a period of grace.

## II LOANS

---

### 1. Technical and economic acceptability of applications

#### 1.1 Types of projects involved

- The projects must give priority to improving the degree of efficiency and safety of nuclear power stations and installations in the nuclear fuel cycle which are in service or under construction (cf. points 1.2 and 1.3).
  
- Projects may also relate to the decommissioning of installations for which modification to bring them up to standard is not feasible in technical or economic terms and which would pose a safety hazard if simply abandoned. The financing granted may relate to investment during the period between shut-down and the start of decommissioning and to the decommissioning measures themselves. The financing of decommissioning measures will be considered only where no provision to finance these measures has been made during the operating life of the installation.

#### 1.2 Obtaining authorization at national level

Financing will be granted only to projects which have received the approval of the competent national authorities, particularly the safety authorities.

#### 1.3 Obtaining a favourable opinion from the Commission in technical and economic terms

At technical level, the Commission shall examine the extent to which the project provides a solution to the safety problem which exists. The examination will also include an assessment of the environmental impact of the project.

The Commission's examination shall refer to the studies on nuclear safety carried out by the international bodies, IAEA and WANO, and under the Phare and Tacis programmes, and shall assess the project in comparison with measures implemented in the Member States to solve similar types of problems, taking account of the recommendations made by the international bodies.

Although the list below is not exhaustive, the Council invites the Commission to give particular consideration to the modification measures below:

- Improving the containment of the primary circuit (reactor vessel and primary piping);
- Improving the reactor cooling system, particularly the emergency cooling system;
- fire detection and extinguishing systems;
- installation of specific and independent alarm systems;
- improving the reactor protection and monitoring system;
- control room equipment.

Other measures resulting from the studies under way shall also be taken into consideration.

At economic level, the Commission shall establish that the projects are justifiable, by comparing the economic characteristics and the efficiency of the projects in question with those of non-nuclear alternatives which are potentially available. Investment must relate to installations which are economically viable. The opinion shall refer to the overall energy plan which has been defined for the beneficiary country, in so far as such guidelines exist.

The economic and efficiency studies shall be based on assumptions which reflect the reality of a market economy in terms of both the positive financial flows (price and quantity produced) and the negative financial flows (investment costs, cost of factors utilized, etc.).

#### 1.4 Necessity of close cooperation with at least one Community enterprise

This condition shall be considered to have been met if a major proportion of the capital goods item or service which is to be financed is provided by a Community enterprise.

1.5 Securities

The guarantee of the State on whose territory the project is situated shall normally be required, but other first-class securities may also be contemplated.

2. Limits of loan amounts

2.1 The Commission shall grant only loans which supplement those which the enterprise has contracted with other parties.

2.2 The Commission shall limit its loans to 50% of the total cost of the projects mentioned in point 1.1 (in one or several tranches). The total Community financing for a particular project shall not exceed 50%.

2.3 In the event of co-financing with the EBRD, the cumulative total of Community financing shall under no circumstances exceed 70% of the total cost of the project mentioned in point 1.1.

3. Order of granting of loans

3.1 Applications concerning the financing of expenditure effected after 1 January 1992 shall be acceptable.

3.2 The Commission shall use the technical and economic studies to decide, if necessary, which projects are to receive priority treatment.

4. Other financing conditions

4.1 Currencies

Loans shall be paid out in several currencies (a combination) or in a single currency, according to the recipient's preferences and subject to availability. The main currencies used shall be those of the EEC Member States, the ecu, the US dollar, the Swiss franc and the yen.

4.2 Duration

Loans shall be granted on a medium- and long-term basis, with the particular duration depending on the type of project and life of the assets financed. The maximum duration of loans shall be twenty years.

#### 4.3 Interest rates

The interest rates shall closely follow the cost of the borrowings from which the loans are granted, and they shall not vary according to the nature or location of the project, nor according to the type or nationality of the recipient. Rates shall be set for each of the currencies used.

The loans shall be at a fixed or variable rate, according to the recipient's preferences and subject to availability.

#### 4.4 Reimbursement

Reimbursement of the loans shall be carried out in line with reimbursement of the borrowings utilized. Reimbursements shall be made in the same currencies and in the same proportions as the loan payouts.

### B

#### ORGANIZATION OF COOPERATION WITH THE EIB

(Text to be inserted in the Council minutes)

The Council notes that the rules, which have already been agreed with the EIB, for Community participation in the financing of investment referred to in Decision 77/270/Euratom and listed in the Council minutes relating to that Decision shall continue to apply in respect of investment carried out in the Member States.

The Commission shall define with the EIB how these rules are to be extended to apply to the financing of investment aimed at improving the degree of efficiency and safety of nuclear power stations in the countries of central and eastern Europe and of the CIS.



- 17 -

ISSN 0254-1475

COM(92) 467 final

# DOCUMENTS

EN

11 12

---

Catalogue number : CB-CO-92-489-EN-C

ISBN 92-77-49046-2

---

Office for Official Publications of the European Communities  
L-2985 Luxembourg