

COMMISSION OF THE EUROPEAN COMMUNITIES

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Proposal for a
COUNCIL DECISION

on a Community Action Programme for
improving the efficiency of electricity use

(Communication from the Commission)

Communication from the Commission to the Council

on

A Community Action Programme for Improving the
efficiency of electricity use

and

proposal for a Council Decision

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A COMMUNITY ACTION PROGRAMME FOR
IMPROVING THE EFFICIENCY OF ELECTRICITY USE

Communication from the Commission to the Council
and proposal for a Council Decision

I. INTRODUCTION

1. The importance of energy saving to the Community economy has been frequently emphasised by the Council. In its Resolution of 16 September 1986⁽¹⁾ the Council called for a vigorous policy for energy saving and adopted the objective of achieving at least a further 20% improvement in the efficiency of final energy demand by 1995. Towards achieving this objective, this Communication proposes a Council Decision (draft annexed) which would establish a Community Action Programme to improve the efficiency of electricity use.
2. The Commission, in its Communication to the Council in October 1987 (COM(87)496 final), presented the case for a concerted programme of action throughout the Community to exploit the potential for improved efficiency in the use of electricity. The Council recognised the importance of this and invited the Commission to associate electricity distributors with this exercise, as well as other interested parties.
3. The Commission has since held discussions with interested parties represented at Community level, including electricity utilities, energy consumer organisations, energy managers and manufacturers in the lighting, electric motor, and domestic appliance fields. All parties indicated their willingness to co-operate in a Community Action Programme, and endorsed its objectives.
4. The Community Action Programme concentrates on improving the efficiency of final electricity use and does not deal, for example, with measures such as improvements in the efficiency of electricity production or load management, both of which can improve the economics of electricity supply. Questions of correct pricing and, particularly, the use of appropriate tariff structures are also vital for encouraging the efficient use of electricity but will be addressed elsewhere in the internal energy market context.

(1) O.J. C241, 25.9.1986, P.1

11. REASONS FOR PROMOTING THE MORE EFFICIENT USE OF ELECTRICITY

5. Electricity consumption, which grew at about 3% a year during the 1980's, now accounts for about 17% of final energy demand in the Community. The increasing role of electricity often reflects the introduction of more efficient and productive technologies, contributing to industrial competitiveness and higher standards of living. Electricity is also the vector through which solid fuels and nuclear power have greatly reduced the Community's dependence on imported oil, and will in future be the main vector through which renewable energies can contribute to Community energy supply. The growing role of electricity does, therefore, make it all the more important to ensure its efficient use.
6. Savings in electricity correspond to still greater savings in primary energy demand. In 1987, the electricity consumption of 1570 TWh⁽²⁾ required the input of 367 MTOE⁽³⁾ of primary energy (35% of total primary energy consumption). If electricity use in 1987 had been 5% less (78,5 TWh, equal to 6,75 MTOE final energy use), this would have reduced the requirement for primary fuels for electricity consumption by 18,4 MTOE, some 2,7 times as much, due to the gearing effect of transformation losses.
7. Recent estimates indicate that, if 90% of equipment and appliances used in the Community in 1985 had been the most efficient commercially available, there would have been considerable savings in electricity consumption. Electricity consumption in the industrial sector could have been lower by some 11%, in the residential sector by 20%, in the tertiary sector by 11% and in the transport sector by 3%, resulting in an overall reduction in consumption of some 12%. These estimates, although approximate, indicate that significant savings are possible by improvements in the inherent efficiency of electrical equipment.
8. Reductions in electricity consumption bring other benefits. It is estimated that a 10% improvement in the efficiency of electricity use could, by the year 2000, avoid the need for some 40 GW of additional generating plant with a reduction in investment requirements of some 35-40 milliard ECU. This would imply consequential reductions in costs to electricity consumers. Since a high proportion of such additional plant would use fossil fuels, the considerable reduction in atmospheric emissions would contribute to the reduction of environmental pollution.
9. A Community Action Programme in this field would be complementary to other existing Community Actions. Not least of these is the Community Energy Demonstration Project Programme, which has a high energy-saving content. Other actions include the Council Directive on the energy labelling of domestic appliances⁽⁴⁾ and the Commission initiative on the energy certification of buildings⁽⁵⁾.

(2) TWh = KWh x 10⁹

(3) MTOE = Millions of tonnes oil equivalent

(4) O.J. N° L 145, Page 1, of 13.6.1979

(5) O.J. N° C-267, Page 2, of 6.10.1987

III. AREAS OF POTENTIAL EFFICIENCY IMPROVEMENTS

10. In the domestic sector there have been significant improvements in the electrical efficiency of new appliances over the years. Typically, over the last 10 years the specific electricity consumption of refrigerators has reduced by at least 16%, that of dishwashers by at least 10% and that of washing machines by at least 26%. In lighting, also, new types of fluorescent lamps offer saving potentials of 70% to 80% compared with incandescent lamps. Savings can also be achieved by the more controlled use of electrical space and water heating.
11. In the Industrial sector, motive power accounts for some 60% of total consumption. In this area significant savings are possible by the correct choice of electric motor size, by the replacement of existing motors by higher efficiency motors, by the correct choice of the type of regulation of the driven pump or fan and by suitable automatic control to ensure the minimum necessary running time. The use of electricity for process heat accounts for a further 20% of consumption. Here the choice of the most efficient process and the reduction of waste heat are further areas of saving potential. Lighting is also used extensively in industry; both the choice of the types of lighting equipment used and the use of automatic controls to minimise consumption are potential areas of saving.
12. The principal areas of application in the tertiary sector are space and water heating, motive power and lighting. As in the other sectors, the potential of savings lies in the selection of the most efficient equipment and the careful control of its use. Although this is a heterogeneous sector, it does include public and office buildings, areas in which considerable potential for savings in both lighting and heating is known to exist.

IV. OBJECTIVES OF COMMUNITY ACTION

13. To achieve the potential savings from improving the efficiency of electricity use and the resultant benefits, Community action should have two principle objectives.
14. Consumer behaviour must be influenced in favour of the use of the most efficient electrical appliances and equipment and of using these in the most efficient manner.

The improvement of the overall efficiency of electricity use does not depend just on improving the efficiency of industrial equipment and domestic appliances, important as this is. It depends at least as much on the electricity consumer, to whom costs and cost-effectiveness are important. The extent of his awareness of efficiency and costs will determine whether he purchases and installs the most efficient models available. Community action, to be effective, must cover all these aspects.

15. All consumers should be well informed on the relative efficiencies of equipment commercially available, its cost-effectiveness and its efficient use. Furthermore, they should have ready access to technical advice on the purchase and installation of the most efficient equipment. In many cases the user of electrical equipment (the electricity consumer) is not responsible for the choice of equipment, which has been specified by an architect, in the case of buildings, or a consulting engineer. Those responsible for specifying electrical equipment must be sensitised to the importance of efficiency and well informed on the relative efficiencies of available equipment.

16. The efficiency of electrical appliances, equipment, and electricity - based processes should be further improved and high-efficiency equipment effectively marketed.

High-efficiency equipment should be effectively marketed and efforts made to increase the proportion of such equipment in commercial use, including the transfer of technology throughout the Community. Where the lack of technical harmonisation or standardisation (whether performance standards or equipment standards) hinders improvement in the efficiency of electricity use, corrective measures must be taken. The promotion of new, high-efficiency equipment by demonstration projects and the replication of such projects should be used to increase the overall efficiency of equipment and its use. Research and development should also continue with the aim of bringing forward into commercial use even more efficient electrical equipment.

VI. PARTICIPANTS IN COMMUNITY ACTION

17. The above objectives can best be furthered by the co-ordinated efforts of a number of different organisations and institutions. This would ensure that the benefits of experience, technical and marketing expertise were harnessed together throughout the Community. The Community Action Programme should therefore involve the following :

- electricity distributors, who have both a high level of expertise in the use of electricity and the closest and the most direct relationship with the final consumer;
- consumer organisations, who are already active in providing information to consumers both on the relative efficiencies and costs of various appliances and equipment, principally in the domestic sector;
- professional institutions in both engineering and architectural fields, who have a role to play in ensuring that the concept of the efficient use of electricity is thoroughly understood and put into practice by those responsible for the specification of equipment;
- manufacturers of electrical appliances and equipment, through their representative organisations, can also make a valuable contribution. Collective action on their part can contribute towards improving the efficiency of electrical appliances and equipment on the market.

- Member State Governments, who can take a lead by ensuring the exemplary efficient use of electricity in the premises which they own or occupy. In addition, efforts should be particularly focused on electricity use within Member States' energy saving programmes;
- the Commission, which has a coordinating and supporting role to play in the planning and execution of Community action.

VI. THE COMMUNITY ACTION PROGRAMME

Elements of the programme

18. The Community Action Programme would be set in hand by the proposed Council Decision. The implementation of the Programme must provide sufficient flexibility to ensure maximum effectiveness in each Member State. The Programme would include the following elements:
- a) Consumer information : Improvements in the information available to consumers and equipment specifiers, on appliance and equipment efficiency and efficient use, should be made through:
- electricity distributors, who should develop action programmes to this end;
 - consumer organisations, who should further improve their dissemination of information through all appropriate media;
 - the appliance and equipment manufacturers, who should ensure not only the availability of adequate information but also its specific relevance to electrical efficiency;
 - Member State Governments and the Commission should ensure that their activities in this area include measures to inform consumers;
 - the Commission, electricity distributors and manufacturers should co-operate in the establishment of appropriate databases.
- b) Technical advice : Technical advice on the purchase, installation and use of the most efficient appliances and equipment should be readily available to consumers, especially those lacking technical expertise in this field. This involves :
- electricity distributors, who may themselves provide such advice or have information available on where such advice can be obtained (e.g. third-party financing companies, energy service companies, consulting engineers, etc.);
 - consumer organisations;
 - professional institutions, who should ensure that adequate educational facilities exist in areas concerned with the efficient use of electricity;
 - Member State Governments should ensure that, where appropriate, their consumer information activities include information on sources of technical advice.

- c) Appliance and equipment efficiencies : Actions should be taken not only to improve the efficiency of appliances and equipment but to increase the market share of the most efficient models already commercially available. To these ends :
- manufacturers of appliances and equipment should, by collaboration through their associations, take actions to improve equipment and appliance efficiencies. They should intensify their own marketing efforts in electrically-efficient equipment and their support for the marketing efforts of other parties;
 - electricity distributors should make the increased penetration of more electrically efficient appliances and equipment a major element of their action programmes in this area, including examination of the potential of selective financial intervention;
 - Member State Governments and all other parties directly involved with the execution of the Community programme should take actions to ensure that, in all the activities for which they are responsible and in all the buildings they own or occupy, electrical appliances and equipment are of high efficiency and efficiently operated;
 - all parties should facilitate the transfer of high-efficiency technology in the Community;
 - new or improved efficiency-related standards, which experience elsewhere has shown can be an effective means of energy saving, should be introduced wherever appropriate.
- d) Financial Incentives : The massive use of financial incentives to achieve improved efficiency in electricity use is obviously not a desirable option. Nevertheless, there may be situations where financial incentives have advantages. It may, for example, be beneficial for electricity distributors to give support to activities which, through the selective reduction of electricity use, produce savings in the costs of electricity supply. Although not strictly a financial incentive, the use of the third party financing technique can facilitate and encourage investments to achieve improved efficiency of electricity use.
- e) Demonstration and R&D : Demonstration of new, electrically efficient appliances, equipment and technologies should be supported and co-ordinated between national and Community programmes and the results disseminated throughout the Community.
- f) Programme co-ordination and monitoring : The Commission would be responsible for the co-ordination of the planning and implementation of the programme, and monitoring of results. It would encourage the setting of practical targets for efficiency improvement and reasonable timetables for their achievement, provide financial support for studies, databases, seminars and other information activities. It should inform the Council regularly on the development and the results of the programme.

Management of the programme

19. Underlying the Community pattern of electricity consumption are differing patterns in the Member States. Such differences, and the reasons for them, should be taken into account in determining the most effective actions to be taken. Thus, it is important that the management of the Community Action Programme should be sufficiently flexible to ensure that actions within individual Member States are appropriate to their needs and circumstances. At the same time, coordination and support as well as monitoring of the actions and their results should be provided at Community level.
20. To achieve this, the draft Council Decision proposes that:
 - Member State Governments should establish national bodies, responsible for the implementation and coordination, at national level, of actions within the Community Action Programme. All interested parties should be represented in these bodies, including the electricity utilities, electrical equipment manufacturers, consumers organisations and appropriate professional bodies;
 - a Community Action Programme Advisory Committee should be established to assist the Commission in the co-ordination of the Action Programme and to advise on appropriate activities to be carried out at Community level in support of the Action Programme. All national bodies should be represented on this Committee, which should call on other interested parties as appropriate;
 - a Community Action Programme Secretariat should be established by the Commission, responsible for coordination, dissemination of information, management of studies or other actions at Community level and the preparation of regular progress reports to the Council.
21. The draft Council Decision is annexed.

ANNEX

Proposal for a

Council Decision

on a Community Action Programme for
improving the efficiency of electricity use

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 235 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament,

Having regard to the opinion of the Economic and Social Committee,

Whereas in its resolution of 15 January 1985 on the improvement of energy-saving programmes in Member States⁽¹⁾ the Council invited Member States to pursue and where necessary increase their efforts to promote the more rational use of energy by the further development of integrated energy-saving policies;

Whereas in its resolution of 16 September 1986⁽²⁾ concerning new energy policy objectives for 1995 the Council called for a vigorous policy for energy saving;

Whereas in its declaration of 26 November 1986 on energy efficiency the Council agreed that the Community and the Member States would publicise the need for greater energy efficiency by making available full information and advice on how this can be achieved;

Whereas the production of electricity accounts for over 35% of the Community's total primary energy consumption and the consumption of electricity for over 17% of the Community's total final energy consumption;

Whereas improvements in the efficiency of electricity use would bring benefits in terms of lower primary energy consumption, reduced investment in electricity production capacity, reduced emission levels and lower electricity costs to consumers;

Whereas significant potential for improvements in the efficiency of electricity use exists and specific actions are necessary to ensure its achievement;

Whereas, to achieve improvements in the efficiency of electricity use, electricity consumers should be encouraged to use the most efficient electrical appliances and equipment and the efficiency of such appliances and equipment and of electrically-based processes should be further improved;

(1) O.J. C20, 22.1.1985, P.1

(2) O.J. C241, 25.9.1986, P.1

Whereas a Community Action Programme should be instituted to achieve these objectives, and whereas the EEC Treaty has not provided for the necessary powers to achieve these objectives;

Whereas such a Community Action Programme would be complementary to other actions in the general field of energy saving, in particular the Community Energy Demonstration Project Programme, which has a high energy-saving content, as well as the Council Directive on the energy labelling of domestic appliances⁽³⁾, the Council Resolution on the rational use of energy use in buildings⁽⁴⁾ and the Commission Initiative on the energy certification of buildings⁽⁵⁾;

Whereas the execution of a Community Action Programme would require not only the collaboration of the Commission and Member State Governments but also the participation of other parties in the electricity sector, notably the electricity distributors, electrical equipment manufacturers, electricity consumers' organisations, and professional institutions;

HAS DECIDED AS FOLLOWS :

Article 1

1. A Community Action Programme for improving the efficiency of electricity use shall be instituted.
2. The Community Action Programme shall have, as its twin objectives, the influencing of electricity consumers in favour of the use of the most efficient electrical appliances and equipment in the most efficient manner and the further improvement of the efficiency of electrical appliances and equipment and of electricity-based processes.

Article 2

The main lines of the activities envisaged within the Community Action Programme shall be as indicated in the Annex to this Decision. Additional actions may be included during the operation of the Programme, where such actions can further the achievement of the programme objectives.

Article 3

1. The Member States shall be responsible for the management and execution of actions under the Community Action Programme within their territories.
2. To this end Member States shall set up or appoint national bodies, in which all interested parties in the execution of the Programme shall be represented including the electricity undertakings, electrical equipment manufacturers, consumers' organisations and appropriate professional bodies.
3. Member States shall instruct the national bodies to recommend and coordinate the execution of actions under the Community Action Programme within their territory and to ensure close liaison with the Commission.

(3) O.J. N° L 145, Page 1 of 13.6.1979

(4) O.J. N° C 78, Page 1, of 26.3.1985

(5) O.J. N) C 267, Page 2, of 6.10.1987

Article 4

1. A Community Action Programme Advisory Committee shall be established, under the Chairmanship of the Commission, which will comprise representatives of the national bodies referred to in Article 3 as well as other interested parties nominated by the Commission. The Committee shall determine its rules of procedure.
2. The Committee shall assist the Commission in the coordination of the Action Programme and shall advise on appropriate activities to be carried out at Community level in support of the Action Programme.

Article 5

1. The Commission shall ensure the secretariat of the Advisory Committee referred to in Article 4 and be responsible for the provision of administrative planning and technical support to the management of the Programme and for the management of actions instituted by the Commission in support of the Programme.
2. The coordination at Community level of actions under the Action Programme, the monitoring of the progress and results of the Programme and actions necessary to the support of the Programme at Community Level shall be the responsibility of the Commission.
3. The Commission shall report regularly to the Council, to the European Parliament and to the Economic and Social Committee on the progress of the Community Action Programme. The first such report shall be made not later than nine months following the adoption of this Decision.

Article 6

Where the achievement of the Programme objectives requires further Community measures, the Commission shall lay before the Council proposals for such measures pursuant to the relevant provisions of the Treaty.

Article 7

After a period of not more than three years, the Action Programme and the procedures established for its implementation shall be re-examined, on the basis of a report by the Commission, with a view to examining their effectiveness and their possible improvement.

Article 8

The present Decision is addressed to the Member States.

Done at Brussels,

ANNEX TO DRAFT COUNCIL DECISION

The main lines of the activities envisaged within the Community
Action Programme referred to under Article 2

1. Consumer Information

Activities to improve the quality and availability of information to electricity consumers and equipment specifiers concerning the efficiency of electrical appliances and equipment and their efficient use, including:

- the provision of information by electricity distributors, consumer organisations and, where appropriate, by Member State Governments;
- the most effective use of all media for disseminating information;
- the provision of data relating to appliance and equipment efficiency by manufacturers;
- the establishment of appropriate data bases.

2. Technical advice

Activities to ensure that technical advice on the purchase, installation and use of the most efficient electrical appliances and equipment is readily available to electricity consumers, including:

- activities by electricity distributors and consumer organisations and Member State Governments to ensure that advice is available to consumers on the purchase, installation and use of the most efficient electrical appliances and equipment;
- activities by professional institutions concerned with the specification and installation of electrical equipment to ensure that their members are adequately informed on the efficient use of electricity.

3. Efficiencies of electrical appliances and equipment

Activities to improve the efficiencies of electrical appliances and equipment and to increase the market share of the most efficient of these already commercially available, including:

- the establishment of collaboration between manufacturers to improve the efficiency of appliances and equipment;
- efforts by electricity distributors and others to increase the penetration of more efficient appliances and equipment by more effective marketing, including examination of the potential of selective financial intervention;

- action by Member State Governments to ensure that, in all activities which they manage and in all buildings they own or occupy, electrical appliances and equipment are of high efficiency and efficiently operated;
- consideration of the potential contribution of new, efficiency-related or technical standards to improving the efficiency of electricity use.

4. Demonstration

Actions to ensure that the demonstration of new, more efficient appliances, equipment and technologies is adequately supported and information disseminated throughout the Community.

5. Studies and other support activities

Actions to analyse factors determining the efficiency of electricity use and to identify areas in which additional measures might effectively be taken, other studies and information seminars.

6. Co-ordination and monitoring

Actions to ensure the co-ordination of programme actions and adequate monitoring of the results.

COMMISSION OF THE EUROPEAN COMMUNITIES

ADDENDUM

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NE CONCERNE QUE LES VERSIONS
FRANCAISE, ALLEMANDE ET ANGLAISE

Brussels, 27 October 1988

Proposal for a

COUNCIL DECISION

on a Community Action Programme for
improving the efficiency of electricity use

(Communication from the Commission)

Com 11/12

FINANCIAL RECORD

1. Relevant budget heading

New project. Chapter 70 (new line).

Title : Community Action Programme for improving the efficiency of electricity use.

2. Legal basis : EEC Treaty - Article 235 - Proposed Council Decision.

3. Description of the project : The Community Action Programme envisages a number of activities (see attached Annex to proposed Council Decision) to be carried out within Member States to improve the efficiency of electricity use. The Commission will be required to co-ordinate those activities and provide administrative and technical support at Community level.

4. Justification of the project : The project is situated in the field of energy saving and accords with the Council's declared interest in a vigorous policy for energy saving.

5. Financial implications in respect of intervention appropriations :

5.1. Extended duration project.

5.2. 100% financed from Community budget.

5.3. Four-year timetable of the requisite appropriations :

5.3.1. (Differentiated)

1990 - 600.000 ECU 1991 - 400.000 ECU

1992 - 400.000 ECU 1993 - 300.000 ECU

6. Financial implications in respect of appropriations for staff :

6.1. 3 A-grade, 1 B-grade, 1 C-grade.

Those above posts will be found either by internal re-deployment or in the context of the general budget procedure.

FICHE D'IMPACT SUR LA COMPETITIVITE ET L'EMPLOI

I. Quelle est la justification principale de la mesure?

Utilisation rationnelle de l'électricité dans les usages finales.

II. Caractéristiques des entreprises concernées. En particulier:

(a) Y a-t-il un grand nombre de PME? Oui.

(b) Note-t-on des concentrations dans des régions?

- i. éligibles aux aides régionales des Etats membres? oui non
- ii. éligibles au FEDER? oui non

III. Quelles sont les obligations imposées directement aux entreprises?

Rien.

IV. Quelles sont les obligations susceptibles d'être imposées indirectement aux entreprises via les autorités locales?

Rien.

V. Y a-t-il des mesures spéciales pour les PME?

- non
- oui Lesquelles?:

VI. Quel est l'effet prévisible?

- (a) sur la compétitivité des entreprises: par le moyen d'accroissement de l'efficacité de l'utilisation de l'électricité, réduction des coûts de l'énergie.
- (b) sur l'emploi: aucun prévisible.

VII. Les partenaires sociaux ont-ils été consultés?

- non
- oui Quels sont leurs avis: