

COMMISSION OF THE EUROPEAN COMMUNITIES

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ACCELERATING DISCRETE ENERGY EFFICIENCY INVESTMENTS THROUGH THIRD PARTY FINANCING.

(Communication from the Commission)

SUMMARY

The achievement of the Council's 1995 energy efficiency objective of a further improvement of 20% at least in the efficiency of final energy demand will require an acceleration in the rate of investment in energy efficiency. Third party financing has already proved successful in stimulating energy efficiency investments in North America and a Commission study has estimated a Community potential of 86 billion ECU for this mechanism. The Member States' governments are recommended to implement a series of measures aimed at ensuring the development of a third party financing industry in the European Community.

1. Introduction

1. The Council of Ministers, at their meeting on 16 September 1986, set new energy objectives for the Community in 1995, which included a further improvement in energy efficiency of at least 20%¹. The recent evaluation of the energy policies of the Member States indicates that the Council's 1995 energy efficiency objective is unlikely to be attained unless stronger policy measures are taken. Energy efficiency efforts, and in particular investment in discrete energy efficiency projects, seem to be decreasing. Among the reasons for this decrease are the current low energy prices, the low priority often attached to energy saving investments in decision making, the financial structure of firms and the disparities in the required rate of return between energy supply and energy saving projects.

2. The achievement of the Council's 1995 energy efficiency objective translated on a sectoral basis would require a saving in annual consumption of 50 mtoe in the building sector and 40 mtoe in the industrial sector. If these savings were to be accomplished by investment alone, an investment of about 65 billion ECU² would be required in the building sector and an investment of about 45 billion ECU³ in the industrial sector. Therefore to achieve the 1995 objective by investment alone about 100 billion ECU in total must be invested in energy saving by 1995.

3. Investments in new electrical appliances, vehicles, new buildings, burners and boilers or industrial process plant often entrain, as an additional advantage, better energy efficiency. Such investments are usually driven by the need to replace obsolete or worn-out facilities rather than by the energy efficiency advantages alone. But major energy savings can also be accomplished by improving energy efficiency in existing buildings and industrial process plants which are not being replaced or renovated. Something needs to be done to stimulate discrete investments which are primarily intended to save energy costs.

4. This communication addresses the question of how specific energy efficiency investments may be encouraged without the public authorities

1) Official Journal C 241 published on 25 Sept. 1986

2) 1300 ECU/toe saved - COM (86) 264 final Brussels, 16 May 1986

3) 1050 ECU/toe saved - Agence Française pour la Maîtrise de l'Energie

having to subsidise such investments. It looks at the potential of third party financing as a mechanism for accelerating such investments, examines experience in the use of this mechanism and some of the obstacles to its introduction in the European Community and concludes by recommending an action programme.

2. What is Third Party Financing?

5. Several novel financial mechanisms have been developed in various countries to accelerate energy efficiency investments. Each type of financing uses different mechanisms, involves various technologies, and can involve more than two participants at the contractual level.

6. Innovative vendor financing essentially consists of energy equipment vendors either financing the purchase of their equipment in exchange for a share of future energy cost savings, or underwriting the cost for the purchaser by contractually guaranteeing a level of savings. It naturally tends to be focused on the one technology or equipment type offered by the vendor. This method of financing energy saving investments is already established in several Member States. Energy service company financing or third party financing is however still little used in the Community. This type of approach consists of an independent energy service company identifying energy saving investments and providing the client with the finance (and advice) necessary to carry out the investment in exchange for a share of the energy costs saved.

7. The Commission believes that third party financing is probably the most promising mechanism for the European Community to mobilise the large amounts of private capital required to carry out discrete energy efficiency investments. This is an application case for the financial engineering approach adopted by the Commission.

8. As has been explained, this provision of private capital is accomplished by means of an energy service company (ESCO) borrowing from

private sources the finance for energy saving investments and using part of the resulting cost savings to pay off the loan. The energy savings are, therefore, viewed as a stream of income' for the ESCO which is, therefore, central to the successful operation of the mechanism: an ESCO must provide a combination of engineering, financial and marketing skills.

9. The necessary steps to establish a third party financing investment are outlined in Annex 1. The ESCO carries out a preliminary energy audit to estimate the likely economic level of energy savings. A proposal is then made to the facility owner which outlines a programme for establishing and accomplishing these energy savings. A contract is negotiated, and an energy baseline or average consumption pattern is ascertained. The ESCO then carries out a detailed energy audit, decides what is necessary and installs equipment aimed at accomplishing the potential energy savings. The facility owner and the ESCO share the financial benefit from energy savings made during the term of the contract.

10. Third party financing therefore has the significant advantage that the facility owner does not have to provide funds for the conservation measure. He can still make other investments while starting to reap the benefits of the energy saving. Neither does the facility owner have to determine which equipment is most appropriate. The ESCO bears all the risk of energy savings not being achieved. It is usual to arrange that the facility owner owns the equipment at the end of the contract, which can vary from 2-10 years duration.

3. The Experience To Date with Third Party Finance.

11. Third party financing was originally developed in the United States and Canada and much of the operational experience has come from there. The market for third party financing in the United States has been developing rapidly. By 1984, the last year for which disaggregated data is available, there were about 150 companies offering 'energy services' and energy saving investments made through these companies resulted in about \$350m being invested.

12. One of the factors which has assisted the growth of the 'energy services' market in the U.S. has been the active role played by government- Federal, State, and local. The active participation of government institutions has led to a situation where by 1985 energy efficiency investments in public sector buildings accounted for 50% of all third party financing compared to 20% in 1983. At Federal level, the government has, through it's various Departments promoted the use of third party financing in making energy saving investments in **government buildings**. The Federal Energy Management Programme has set up a clearing house on third party financing, in order to assist government building managers to avail themselves of the technique. Similar arrangements have been made at State level and with many local authorities

13. Since the inception of the third party financing technique in the U.S., many types of organisation have started to provide third party financing services. They include engineering consultants, engineering firms, subsidiaries of gas and electric utilities, and in some cases local governments themselves.

14. In Europe, the concept of third party financing has been much slower to develop. A study carried out for the Commission in 1985 and published in 1986⁴ found that the technique was not widely known in Europe but estimated the industrial sector market in the Community for third party financing at 44 billion ECU and the corresponding building sector market at 42 billion ECU. These estimates were established by

4) Third Party Financing Opportunities for Energy Efficiency in the European Community, Association for the Conservation of Energy, Kogan Page, London 1986.

considering only those energy efficiency investments with payback periods of less than 3 years and investment values over 60 000 ECU. The achievement of these investments would have a major impact on the attaining of the 1995 energy efficiency objective.

4. The Obstacles to Third Party Financing.

15. Several factors have been influential in restricting recourse to third party financing in the European Community. Among the major factors are:

- third party financing contracts tend to be complex, which may result in some facility owners being discouraged from attempting such schemes.

- lack of knowledge of the technique. The limited application of third party financing in the European Community has been caused in part by the mechanism not been widely understood, or even known.

- an insufficient number of ESCOs to develop the market. There are less than 10 energy service companies currently operating in Europe and these companies are concentrated in only a small number of Member States (notably the United Kingdom, Belgium, Spain and Luxembourg). In 1985, the two large and several small ESCOs collectively invested about 16 million ECU (potential market 86 billion ECU) in energy saving projects. In view of the size of the estimated EC market for third party financing services, more energy service companies are needed to supply third party financing in Europe. It has to be recognised that the cash flow of an ESCO only develops as the shared value of the energy saving from the contracts made are accomplished. Contracts may take a year or more to negotiate and even then income only accrues after the investment has been made and the equipment installed. This means that finance to set up and to expand the business of an ESCO

can be a problem unless, as in the U.S. and Europe, an ESCO can draw its finance from a larger parent company. Thus far the traditional suppliers of capital, the financial institutions, have been unwilling to enter this field.

-legislative or the budgetary constraints have in many cases prevented the public sector using third party financing. For instance one Finance Ministry in the Community ruled that third party financing contracts entered into by local authorities must be considered as part of the authority's budgetary expenditure. Until it was changed this ruling effectively blocked any third party financing investment by that Member State's local authorities. Other hindrances to the use of this technique in the public sector are inflexible public procurement rules, which require choices to be made on simple cost grounds alone and the fact that decision making in the public sector is frequently a lengthy process. Public officials may also lack the motivation and time to investigate thoroughly a third party financed energy saving project. Member States are currently tackling this problem and there are now cases where some obstacles have been overcome. The mayor of one large city has for example succeeded in getting the approval of central government to carry out a major and successful energy efficiency investment in municipal buildings using third party financing.

- Energy Utilities in the United States have played a major role in the development of third party financing. Utilities have the financial means, unrivalled contact with energy users, and knowledge of energy efficiency technologies. However, in Europe utilities are under no strong pressure to promote energy saving, and do not consider that they have a role in either supporting or indeed entering the third party financing business. Unless governments can bring utilities, particularly publicly owned utilities, to change their position, there is little likelihood of European utilities supporting this concept in the near future.

5. Accelerating Energy Efficiency Investments through Third Party Financing.

16. Starting from the thesis developed in the introduction: that a new financing mechanism is necessary to help in achieving the Community's 1995 energy efficiency objective, the Commission considers that third party financing deserves positive encouragement. This means that the Community must seek to accelerate the development of a third party financing sector and to eliminate the obstacles currently restricting the widespread use of this technique in the Community.

17. The Commission, willing to promote private initiative and mobilisation of private capital towards priority objectives of its action, has already presented in 1986 (COM(86)723 final) a communication on the meaning of financial engineering activity in this area.

Moreover the Commission has already taken some actions aimed at overcoming the lack of knowledge about third party financing in the Community. Two seminars, the first in Brussels in November 1985 and the second in Luxembourg in October 1987 attempted to make the mechanism better known in the Community. This action was supported by the publication of the report cited in paragraph 14 above. The Commission has also supported the drawing up a series of model contracts for third party financing in both the building and industrial sectors. Each contract is accompanied by a guidebook which explains the contract clauses in layman's terms.

18. To continue this work and to facilitate the development of third party financing as a mechanism for accelerating energy efficiency investment, the following seven point course of action is proposed.

(i) The Member States should create an environment in the public sector in which third party financing services can flourish. This can be accomplished by removing administrative obstacles to the application of third party financing techniques and by encouraging Government Departments and Local Authorities to pursue energy efficiency investments financed by this means.

One proven method of accomplishing this aim would be the initiation of a series of pilot projects which would introduce the third party financing concept to the public sector.

(ii) In view of the economic benefits resulting from greater energy efficiency there is a good case for Member States promoting the creation and growth of third party financing companies by helping them to overcome the financial obstacles which tend to face any new and unfamiliar activity. This could be done by making deferred interest loans available to such companies or by providing them with financial guarantees. Alternatively Member States may wish to strengthen the financial position of such companies through direct equity participation.

(iii) The energy supply companies of the Member States, and in particular the electricity and gas utilities, have the requisite customer access and technical, financial and marketing capabilities to play a vital role in expanding the use of third party financing. The Community's utilities represent a vast repository of energy expertise which has, thus far, remained largely untapped in the cause of energy efficiency. Member States should encourage gas and electric utilities to expand their role to encompass the setting up of ESCOs and if necessary, direct them to take on such a role as far as the residential sector is concerned. In such cases the parent company should ensure that the ESCO is set up with the necessary engineering, financial and marketing skills, and provide an effective guarantee to enable the ESCO to borrow the necessary finance from financial institutions.

(iv) The market for the services of third party financing companies in the energy efficiency field may be constrained in the case of multiple dwellings and smaller commercial or industrial enterprises by reluctance to finance the costs of energy audits which are a necessary preliminary. Governments should seek to diminish this obstacle by subsidising part of the cost of such audits for these smaller consumers.

(v) Another obstacle to third party financing arrangements has in some countries proved to be difficulty in drawing up contracts which equitably reflect the partition of the risks,

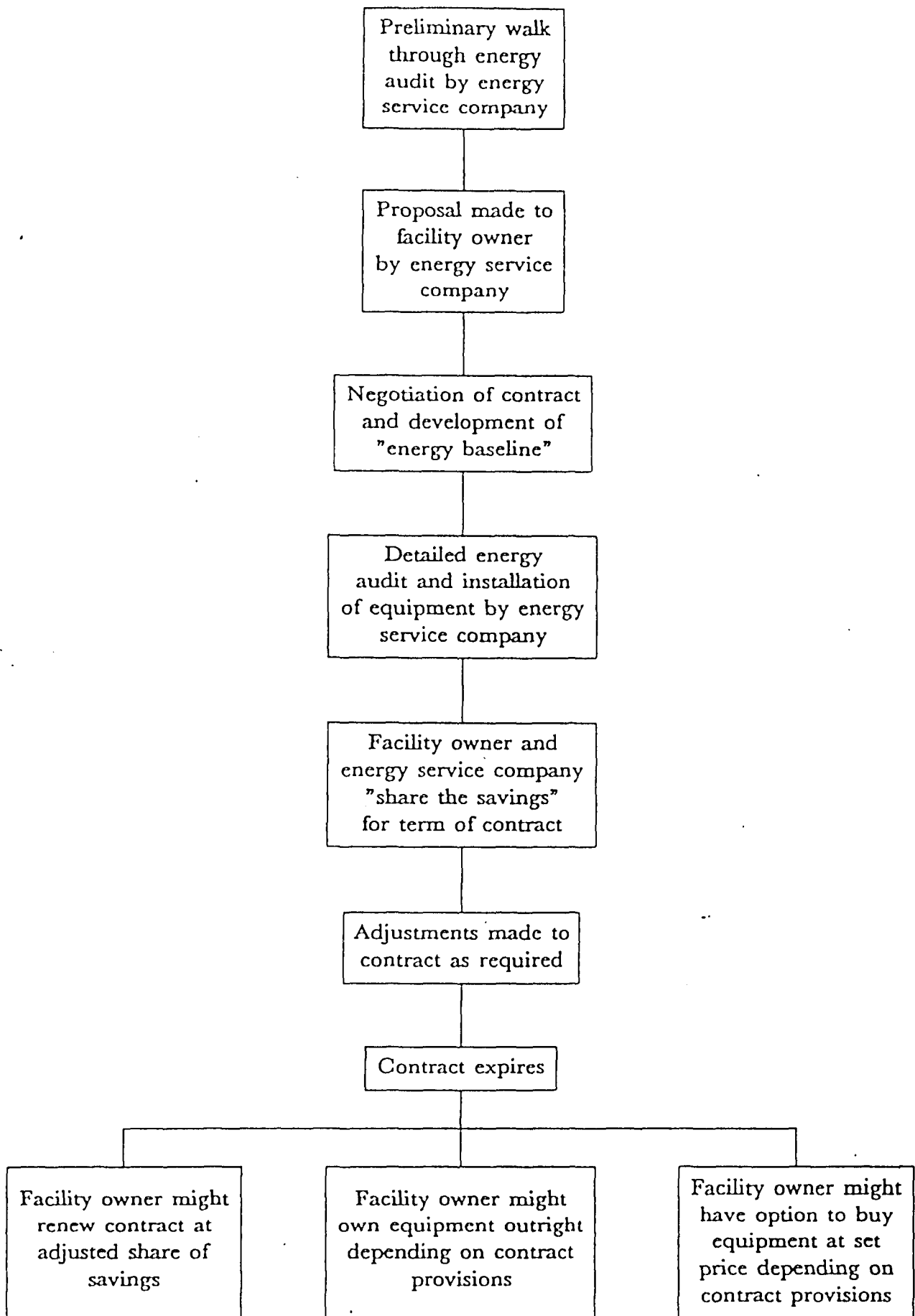
responsibilities and benefits involved. The solution to this should lie in the establishment of national model contracts on the lines of examples already been prepared by the Commission.

(vi) The small and medium enterprise sector constitutes an important market segment for third party financed energy efficiency investments. Over 10 000 European SMEs have already taken part as clients in the Community's Energy Bus scheme and therefore a large body of information on consumption and possible energy efficiency improvements in such companies already exists. The Commission will explore mechanisms whereby the SMEs and the ESCOs can come together to effect the necessary energy saving investments.

(vii) A concentrated publicity campaign should be launched by the Commission and the Member States in order to make third party financing better known and understood by those contemplating energy efficiency investments. For it's part the Commission intends to prepare a symposium designed to convince large companies, with appropriate capabilities, to form divisions or subsidiaries which could operate as ESCOs

6. Conclusion.

19. Annexed to this Communication is a Commission Recommendation to the Member States setting out this approach. If the proposals in this Recommendation are adopted there should be a marked growth in the number of companies offering third party financing services for energy efficiency investments. The consequent increase in third party financed investments would be of substantial assistance in achieving the 1995 energy efficiency objective which is of vital importance for the Community's long term energy security.



Annex 1. ENERGY SAVINGS CONTRACT - FLOW DIAGRAM

COMMISSION RECOMMENDATION ON THIRD PARTY FINANCING

THE COMMISSION OF THE EUROPEAN COMMUNITIES

Having regard to its communication of _____ entitled "Accelerating Energy Efficiency Investments Through Third Party Financing".

Having regard to the conclusions of the Energy Council of June 2nd 1987 which examined the Commission communication "Towards a continuing policy for energy efficiency in the EC" and which welcomed the general approach of the Commission to the achievement of the Council's 1995 energy efficiency objective.

Having regard to the conclusions of the Energy Council of 26 November 1986 which called for the promotion of new financial instruments for investments in energy efficiency which would reduce recourse to public funds.

Having regard to the Council Resolutions of 9 June 1980¹ and 15 January 1985² which called for increased efforts in the Community to save energy and to reduce oil consumption and oil imports and which recommended guidelines to Member States for a basic energy saving programme.

Having regard to the Council Recommendation of 28 July 1982³ on the encouragement of investments in the rational use of energy.

Whereas the considerable improvement recorded in the efficient use of energy in the EC during the period 1973/85 has not been maintained during the period 1985/87;

Whereas the significant reduction in the price of energy has led to a reluctance by investors to make discrete investments in the efficient use of energy;

Whereas there still exists a major unexploited potential for economically viable investments in this field;

Whereas the achievement of the Council's 1995 energy efficiency objective will require a substantial acceleration in such investments;

Whereas third party financing could be a promising mechanism for the European Community to mobilise the significant amounts of private capital required to carry out discrete energy efficiency investments;

Whereas the financial engineering methods developed by the Commission form a particularly useful means to mobilise private capital towards priority Community objectives,

Whereas the European Investment Bank already dedicates an important part of its resources towards the development of rational use of energy and it is appropriate to encourage it in pursuing this action,

HEREBY FORMULATES THIS RECOMMENDATION:

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1. OJ. No C. 149 of 18.6.1980
 2. OJ. No C 20 of 22.1.1985
 3. OJ. No. L 247 of 23.8.1982

Article 1

It is hereby recommended that Member States should take the following steps to promote the use of third party financing for energy efficiency investments:

- (a) the removal of legislative or administrative obstacles to the use of third party financing for energy efficiency investments, in particular those restricting the ability of local authorities to use third party financing services;
- (b) the active promotion of the use of this technique within the public sector,
- (c) the establishment of national model third party financing contracts along the lines of those prepared by the Commission;
- (d) the encouragement of public or private sector enterprises, particularly those involved in energy supply, to play an expanded role by providing third party financing services;
- (e) measures to encourage and promote the provision of third party financing services by gas and electricity utilities, particularly for the tertiary and multiple residential sectors, and for small and medium-sized companies;
- (f) the provision of grants to multiple dwellings and smaller commercial or industrial enterprises to defray the costs of audits carried out by recognised energy service and third party financing companies;
- (g) measures to accelerate the creation of a third party financing enterprises in the energy efficiency field by means of financial incentives such as access to deferred interest loans, direct State equity participation or financial guarantees;
- (h) the establishment of comprehensive information programmes designed to promote the use of third party financing for energy efficiency investments in all sectors of the economy;
- (i) cooperation with the Commission and other Member States in regular reviews of progress and of the possible need for additional measures in this field.

Article 2

Member States should cooperate with the Commission in carrying out reviews, every two years for the next eight years, of the measures taken on the basis of this recommendation.

Article 3

This recommendation is addressed to the Member States.

Done at Brussels,

1988