

COMMISSION OF THE EUROPEAN COMMUNITIES

COM(81) 225 final

Brussels, 11th May 1981

IMPLEMENTING AGREEMENT FOR COOPERATION
IN ENERGY TECHNOLOGY SYSTEMS ANALYSIS

(Communication from the Commission to the Council)

COM(81) 225 final

1.

COMMUNICATION FROM THE COMMISSION TO THE COUNCIL

1. On June 24 and on July 6, 1976, an agreement in the form of an exchange of letters was concluded between the European Atomic Energy Community (Euratom) and the European Economic Community on the one hand and the International Energy Agency (IEA) on the other relating to co-operation in the field of Energy Research and Development.

According to the exchange of letters, the European Communities indicated their intention to negotiate, on a case by case basis, their participation in such "Implementing Agreements" prepared within the framework of the IEA as would contribute to the attainment of the research and development objectives of the Community. For its part, the IEA took note of this intention and confirmed that such participation is open to the European Community.

2. In application of this agreement there has been concluded eight Implementing Agreements for international collaboration in different aspects of research and development of interest to the Community.
3. The Council will find in the attached annex the text of a new Implementing Agreement proposed by the IEA for signature by the Community. This is : "Implementing Agreement for a programme of Energy Technology Systems Analysis" (see Annex A).

The Agreement proposes to continue cooperative systems analysis activity with the twofold objective of both increasing the analytical capability of participants in the field of energy technology assessment as well as maintaining a multilateral capability within the IEA for systems analysis by making use of and improving modelling techniques developed during the period 1976-1979 when the IEA developed an R&D strategy.

4. The above mentioned objectives will be achieved by the following means :
 - the establishment of an energy Technology Systems Analysis Support Centre with a central core staff and computer facilities based at KFA Jülich ;
 - the transfer of the MARKAL model (developed during the IEA's strategy work) to computing facilities of the participants ;
 - carrying out of an agreed work programme ;
 - temporary visits of participants to the central support facility at Jülich.

5. The Commission considers Community participation in the Agreement would be beneficial to its R&D objectives in this field for the following reasons.

The proposed cooperation is a follow-up of work to which the Commission has already made a valuable practical contribution through the active participation of one of its experts at the Brookhaven Laboratory (USA) where, along with KFA Jülich, the strategy model known as MARKAL and the analytical results used in the development of the IEA's Strategy were developed (see paragraph 3 above). The proposed agreement intends to make use of and improve the data base and modelling techniques for the benefit of the participants. For the European Community this would provide a valuable complement to the Commission's own systems analysis work by allowing a quantification of the effects elsewhere of various production, consumption and conversion technologies on R&D policy. It would also allow continuing access for the Community to work being done in this field by third countries such as the USA, and Japan.

The value of such participation has been recognised by the unanimous support from the ACPM "Systems Analysis" in October 1980 and by CREST-Energy at its meeting of November 1980.

6. The financial implication of the Agreement is that it will cost a total of 400,000 DM p.a. for two years and the costs will be borne equally by the participants. This commitment will finance the creation of the central support unit at KFA Jülich (a staff of four consisting of a project head, two scientific and one clerical staff) and make provision for facilities for visits by officials from participants.

Given that a total of 15 member countries of the IEA as well as the Commission have indicated their interest in participating in the Agreement, the annual cost of the Commission's contribution will be 25,000 DM per year, which will be paid from the Communities. Energy research and development programme 1979-83 in the framework of the part dealing with "systems analysis and strategy studies".

7. As far as dissemination of information and intellectual property is concerned, no problem arises because no exchange of licences is envisaged in the Agreement.

However it is the Commission's understanding and a condition of its participation that any information obtained is for the benefit of the European Community as a whole and may be made available to all interested governmental and non governmental organisations in the Member States of the Community.

8. It is the Commission's view that for the Implementing Agreement on energy technology systems analysis, the powers to negotiate and conclude such an Agreement are vested in the Commission by virtue of Article 211 of the EEC Treaty. However as was indicated in the

conclusion of the Implementing Agreement for a programme to develop and test solar heating and cooling systems (1), the Commission said that in the future, before signing similar kinds of agreements within the framework of the IEA, it would inform the Council of its intention to sign such an Agreement and take note of any comments that the Council may wish to make.

9. In conclusion, the Commission informs the Council of its intention to sign the Implementing Agreement for cooperation in energy technology systems analysis.

(1) Council decision 18 July 1977 - R/1615/77 (ATO 62).

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FOR A PROGRAMME OF ENERGY
TECHNOLOGY SYSTEMS ANALYSIS**

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INTERNATIONAL ENERGY AGENCY

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TECHNOLOGY SYSTEMS ANALYSIS

The Contracting Parties

CONSIDERING that the Contracting Parties, being either governments of International Energy Agency ("Agency") Countries, governments of other countries invited by the Governing Board of the Agency to be Contracting Parties, international organizations or parties designated by their respective governments, wish to take part in the establishment and operation of a Programme of Energy Technology Systems Analysis (the "Programme") as provided in this Agreement;

CONSIDERING that the Contracting Parties which are governments of Agency Countries and the governments of Agency Countries which have designated Contracting Parties (referred to collectively as the "Governments") have agreed in Article 41 of the Agreement on an International Energy Program (the "I.E.P. Agreement") to undertake national programmes in the areas set out in Article 42 of the I.E.P. Agreement, including energy research and development, on overall energy systems analysis and general studies in which field the Programme will be carried out;

CONSIDERING that in the Governing Board of the Agency on 21st October, 1980, the Governments approved the Programme as a special activity under Article 65 of the I.E.P. Agreement;

CONSIDERING that the Agency has recognized the establishment of the Programme as an important component of international co-operation in the field of thermal energy research and development;

HAVE AGREED as follows:

Article 1

OBJECTIVES

(a) *Scope of Activity.* The Programme to be carried out by the Contracting Parties within the framework of this Agreement shall consist of co-operative energy technology systems analysis.

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(b) *Method of Implementation.* The Contracting Parties shall implement the Programme by undertaking one or more tasks (the "Task" or "Tasks") each of which will be open to participation by two or more Contracting Parties as provided in Article 2 hereof. The Contracting Parties which participate in a particular Task are, for the purposes of that Task, referred to in this Agreement as "Participants".

(c) *Task Co-ordination and Co-operation.* The Contracting Parties shall co-operate in co-ordinating the work of the various Tasks and shall endeavour, on the basis of an appropriate sharing of burdens and benefits, to encourage co-operation among Participants engaged in the various Tasks with the objective of advancing the activities of all Contracting Parties in the field of energy technology systems analysis.

Article 2

IDENTIFICATION AND INITIATION OF TASKS

(a) *Identification.* The Tasks undertaken by Participants are identified in the Annexes to this Agreement. At the time of signing this Agreement, each Contracting Party shall confirm its intention to participate in one or more Tasks by giving the Executive Director of the Agency a Notice of Participation in the relevant Annex or Annexes and the Operating Agent for each Task shall give the Executive Director of the Agency a Notice of Acceptance of the Task Annex. Thereafter, each Task shall be carried out in accordance with the procedures set forth in Articles 2 to 11 hereof, unless otherwise specifically provided in the applicable Annex.

(b) *Initiation of Additional Tasks.* Additional Tasks may be initiated by any Contracting Party according to the following procedure:

- (1) A Contracting Party wishing to initiate a new Task shall present to one or more Contracting Parties for approval a draft Annex, similar in form to the Annexes attached hereto, containing a description of the scope of work and conditions of the Task proposed to be performed;
- (2) Whenever two or more Contracting Parties agree to undertake a new Task, they shall submit the draft Annex for approval by the Executive Committee pursuant to Article 3 (e) (2) hereof; the approved draft Annex shall become part of this Agreement; Notice of Participation in the Task by Contracting Parties and acceptance by the Operating Agent shall be communicated to the Executive Director in the manner provided in paragraph (a) above;
- (3) In carrying out the various Tasks, Participants shall co-ordinate their activities in order to avoid duplication of activities.

(c) *Application of Task Annexes.* Each Annex shall be binding only upon the Participants therein and upon the Operating Agent for that Task, and shall not affect the rights or obligations of other Contracting Parties.

Article 3

THE EXECUTIVE COMMITTEE

(a) *Supervisory Control.* Control of the Programme shall be vested in the Executive Committee constituted under this Article.

(b) *Membership.* The Executive Committee shall consist of one member designated by each Contracting Party; each Contracting Party shall also designate an alternate member to serve on the Executive Committee in the event that its designated member is unable to do so.

(c) *Responsibilities.* The Executive Committee shall:

- (1) Adopt for each year, acting by unanimity, the Programme of Work, and Budget if foreseen, for each Task, together with an indicative Programme of Work and Budget for the following year; the Executive Committee may, as required, make adjustments within the framework of the Programme of Work and Budget;
- (2) Make such rules and regulations as may be required for the sound management of the Tasks, including financial rules as provided in Article 6 hereof;
- (3) Carry out the other functions conferred upon it by this Agreement and the Annexes hereto; and
- (4) Consider any matters submitted to it by any of the Operating Agents or by any Contracting Party.

(d) *Procedure.* The Executive Committee shall carry out its responsibilities in accordance with the following procedures:

- (1) The Executive Committee shall each year elect a Chairman and one or more Vice-Chairmen;
- (2) The Executive Committee may establish such subsidiary bodies and rules of procedure as are required for its proper functioning. A representative of the Agency and a representative of each Operating Agent (in its capacity as such) may attend meetings of the Executive Committee and its subsidiary bodies in an advisory capacity;
- (3) The Executive Committee shall meet in regular session twice each year; a special meeting shall be convened upon the request of any Contracting Party which can demonstrate the need therefor;
- (4) Meetings of the Executive Committee shall be held at such time and in such office or offices as may be designated by the Committee;

- (5) At least twenty-eight days before each meeting of the Executive Committee, notice of the time, place and purpose of the meeting shall be given to each Contracting Party and to other persons or entities entitled to attend the meeting; notice need not be given to any person or entity otherwise entitled thereto if notice is waived before or after the meeting;
- (6) The quorum for the transaction of business in meetings of the Executive Committee shall be one-half of the members plus one (less any resulting fraction) provided that any action relating to a particular Task shall require a quorum as aforesaid of members or alternate members designated by the Participants in that Task.

(e) *Voting.*

- (1) When the Executive Committee adopts a decision or recommendation for or concerning a particular Task, the Executive Committee shall act:
 - (i) When unanimity is required under this Agreement: by agreement of those members or alternate members which were designated by the Participants in that Task and which are present and voting;
 - (ii) When no express voting provision is made in this Agreement: by majority vote of those members or alternate members which were designated by the Participants in that Task and which are present and voting.
- (2) In all other cases in which this Agreement expressly requires the Executive Committee to act by unanimity, this shall require the agreement of each member or alternate member present and voting, and in respect of all other decisions and recommendations for which no express voting provision is made in this Agreement, the Executive Committee shall act by a majority vote of the members or alternate members present and voting. If a government has designated more than one Contracting Party to this Agreement, those Contracting Parties may cast only one vote under this paragraph.
- (3) The decisions and recommendations referred to in sub-paragraphs (1) and (2) above may, with the agreement of each member or alternate member entitled to act thereon, be made by mail, telex or cable without the necessity for calling a meeting. Such action shall be taken by unanimity or majority of such members as in a meeting. The Chairman of the Executive Committee shall ensure that all members are informed of each decision or recommendation made pursuant to this sub-paragraph.

(f) *Reports.* The Executive Committee shall, at least semi-annually, provide the Agency and the Committee on Energy Research and Development with periodic reports on the progress of the Programme.

Article 4

THE OPERATING AGENTS

(a) *Designation.* Participants shall designate in the relevant Annex an Operating Agent for each Task. References in this Agreement to the Operating Agent shall apply to each Operating Agent in respect of the Task for which it is responsible.

(b) *Scope of Authority to Act on Behalf of Participants.* Subject to the provisions of the applicable Annex:

- (1) All legal acts required to carry out each Task shall be performed on behalf of the Participants by the Operating Agent for the Task;
- (2) The Operating Agent shall hold, for the benefit of the Participants, the legal title to all property rights which may accrue to or be acquired for the Task.

The Operating Agent shall operate the Task under its supervision and responsibility, subject to this Agreement, in accordance with the law of the country of the Operating Agent.

(c) *Reimbursements of Costs.* The Executive Committee may provide that expenses and costs incurred by an Operating Agent in acting as such pursuant to this Agreement shall be reimbursed to the Operating Agent from funds made available by the Participants pursuant to Article 6 hereof.

(d) *Replacement.* Should the Executive Committee wish to replace an Operating Agent with another government or entity, the Executive Committee may, acting by unanimity and with the consent of such government or entity, replace the initial Operating Agent. References in this Agreement to the "Operating Agent" shall include any government or entity appointed to replace the original Operating Agent under this paragraph.

(e) *Resignation.* An Operating Agent shall have the right to resign at any time, by giving six months written notice to that effect to the Executive Committee, provided that:

- (1) A Participant, or entity designated by a Participant, is at such time willing to assume the duties and obligations of the Operating Agent and so notifies the Executive Committee and the other Participants to that effect, in writing, not less than three months in advance of the effective date of such resignation; and
- (2) Such Participant or entity is approved by the Executive Committee, acting by unanimity.

(f) *Accounting.* An Operating Agent which is replaced or which resigns as Operating Agent shall provide the Executive Committee with an accounting of any monies and other assets which it may have collected or acquired for the Task in the course of carrying out its responsibilities as Operating Agent.

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(g) *Transfer of Rights.* In the event that another Operating Agent is appointed under paragraph (d) or (e) above, the Operating Agent shall transfer to such replacement Operating Agent any property rights which it may hold on behalf of the Task.

(h) *Information and Reports.* Each Operating Agent shall furnish to the Executive Committee such information concerning the Task as the Committee may request and shall each year submit, not later than two months after the end of the financial year, a report on the status of the Task.

Article 5

ADMINISTRATION AND STAFF

(a) *Administration of Tasks.* Each Operating Agent shall be responsible to the Executive Committee for implementing its designated Task in accordance with this Agreement, the applicable Task Annex, and the decisions of the Executive Committee.

(b) *Staff.* It shall be the responsibility of the Operating Agent to retain such staff as may be required to carry out its designated Task in accordance with rules determined by the Executive Committee. The Operating Agent may also, as required, utilize the services of personnel employed by other Participants (or organizations or other entities designated by Contracting Parties) and made available to the Operating Agent by secondment or otherwise. Such personnel shall be remunerated by their respective employers and shall, except as provided in this Article, be subject to their employers' conditions of service. The Contracting Parties shall be entitled to claim the appropriate cost of such remuneration or to receive an appropriate credit for such cost as part of the Budget of the Task, in accordance with Article 6 (f) (6) hereof.

Article 6

FINANCE

(a) *Individual Obligations.* Each Contracting Party shall bear the costs it incurs in carrying out this Agreement, including the costs of formulating or transmitting reports and of reimbursing its employees for travel and other per diem expenses incurred in connection with work carried out on the respective Tasks, unless provision is made for such costs to be reimbursed from common funds as provided in paragraph (g) below.

(b) *Common Financial Obligations.* Participants wishing to share the costs of a particular Task shall agree in the appropriate Task Annex to do so. The apportionment of contributions to such costs (whether in the form of cash, services rendered, intellectual property or the supply of materials) and the use of such contributions shall be governed by the regulations and decisions made pursuant to this Article by the Executive Committee.

(c) *Financial Rules, Expenditure.* The Executive Committee, acting by unanimity, may make such regulations as are required for the sound financial management of each Task including, where necessary:

- (1) Establishment of budgetary and procurement procedures to be used by the Operating Agent in making payments from any common funds which may be maintained by Participants for the account of the Task or in making contracts on behalf of the Participants;
- (2) Establishment of minimum levels of expenditure for which Executive Committee approval shall be required, including expenditure involving payment of monies to the Operating Agent for other than routine salary and administrative expenses previously approved by the Executive Committee in the budget process.

In the expenditure of common funds, the Operating Agent shall take into account the necessity of ensuring a fair distribution of such expenditure in the Participants' countries, where this is fully compatible with the most efficient technical and financial management of the Task.

(d) *Crediting of Income to Budget.* Any income which accrues from a Task shall be credited to the Budget of that Task.

(e) *Accounting.* The system of accounts employed by the Operating Agent shall be in accordance with accounting principles generally accepted in the country of the Operating Agent and consistently applied.

(f) *Programme of Work and Budget, Keeping of Accounts.* Should Participants agree to maintain common funds for the payment of obligations under a Programme of Work and Budget of the Task, the following provisions shall be applicable unless the Executive Committee, acting by unanimity, decides otherwise:

- (1) The financial year of the Task shall correspond to the financial year of the Operating Agent;
- (2) The Operating Agent shall each year prepare and submit to the Executive Committee for approval a draft Programme of Work and Budget, together with an indicative Programme of Work and Budget for the following year, not later than three months before the beginning of each financial year;
- (3) The Operating Agent shall maintain complete, separate financial records which shall clearly account for all funds and property coming into the custody or possession of the Operating Agent in connection with the Task;
- (4) Not later than three months after the close of each financial year the Operating Agent shall submit to auditors selected by the Executive Committee for audit the annual accounts maintained for the Task; upon completion of the annual audit, the Operating Agent shall present the

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accounts together with the auditors' report to the Executive Committee for approval;

- (5) All books of account and records maintained by the Operating Agent shall be preserved for at least three years from the date of termination of the Task;
- (6) Where provided in the relevant Annex, a Participant supplying services, materials or intellectual property to the Task shall be entitled to a credit, determined by the Executive Committee, acting by unanimity, against its contribution (or to compensation, if the value of such services, materials or intellectual property exceeds the amount of the Participant's contribution); such credits for services of staff shall be calculated on an agreed scale approved by the Executive Committee and include all payroll-related costs.

(g) *Contribution to Common Funds.* Should Participants agree to establish common funds under the annual Programme of Work and Budget for a Task, any financial contributions due from Participants in a Task shall be paid to the Operating Agent in the currency of the country of the Operating Agent at such times and upon such other conditions as the Executive Committee, acting by unanimity, shall determine, provided however that:

- (1) Contributions received by the Operating Agent shall be used solely in accordance with the Programme of Work and Budget for the Task;
- (2) The Operating Agent shall be under no obligation to carry out any work on the Task until contributions amounting to at least fifty per cent (in cash terms) of the total due at any one time have been received.

(h) *Ancillary Services.* Ancillary services may, as agreed between the Executive Committee and the Operating Agent, be provided by that Operating Agent for the operation of a Task and the costs of such services, including overheads connected therewith, may be met from budgeted funds of that Task.

(i) *Taxes.* The Operating Agent shall pay all taxes and similar impositions (other than taxes on income) imposed by national or local governments and incurred by it in connection with a Task, as expenditure incurred in the operation of that Task under the Budget; the Operating Agent shall, however, endeavour to obtain all possible exemptions from such taxes.

(j) *Audit.* Each Participant shall have the right, at its sole cost, to audit the accounts of any work in a Task for which common funds are maintained, on the following terms:

- (1) The Operating Agent shall provide the other Participants with an opportunity to participate in such audits on a cost-shared basis;
- (2) Accounts and records relating to activities of the Operating Agent other than those conducted for the Task shall be excluded from such audit, but if the Participant concerned requires verification of charges to the Budget

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representing services rendered to the Task by the Operating Agent, it may at its own cost request and obtain an audit certificate in this respect from the auditors of the Operating Agent;

- (3) Not more than one such audit shall be required in any financial year;
- (4) Any such audit shall be carried out by not more than three representatives of the Participants.

Article 7,

INFORMATION AND INTELLECTUAL PROPERTY

It is expected that for each Task agreed to pursuant to this Agreement, the applicable Annex will contain information and intellectual property provisions. The General Guidelines Concerning Information and Intellectual Property, approved by the Governing Board of the Agency on 21st November, 1975, shall be taken into account in developing such provisions.

Article 8

LEGAL RESPONSIBILITY AND INSURANCE

(a) *Liability of Operating Agent.* The Operating Agent shall use all reasonable skill and care in carrying out its duties under this Agreement in accordance with all applicable laws and regulations. Except as otherwise provided in this Article, the cost of all damage to property, and all expenses associated with claims, actions and other costs arising from work undertaken with common funds for a Task shall be charged to the Budget of that Task; such costs and expenses arising from other work undertaken for a Task shall be charged to the Budget of that Task as the Task Annex so provides or the Executive Committee, acting by unanimity, so decides.

(b) *Insurance.* The Operating Agent shall propose to the Executive Committee all necessary liability, fire and other insurance, and shall carry such insurance as the Executive Committee may direct. The cost of obtaining and maintaining insurance shall be charged to the Budget of the Task.

(c) *Indemnification of Contracting Parties.* The Operating Agent shall be liable, in its capacity as such, to indemnify Participants against the cost of any damage to property and all legal liabilities, actions, claims, costs and expenses connected therewith to the extent that they:

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- (1) Result from the failure of the Operating Agent to maintain such insurance as it may be required to maintain under paragraph (b) above; or
 - (2) Result from the gross negligence or wilful misconduct of any officers or employees of the Operating Agent in carrying out their duties under this Agreement.

Article 9

LEGISLATIVE PROVISIONS

(a) *Accomplishment of Formalities.* Each Participant shall request the appropriate authorities of its country (or its Member States in the case of an international organization) to use their best endeavours, within the framework of applicable legislation, to facilitate the accomplishment of formalities involved in the movement of persons, the importation of materials and equipment and the transfer of currency which shall be required to conduct the Task in which it is engaged.

(b) *Applicable Laws.* In carrying out this Agreement and its Annexes, the Contracting Parties shall be subject to the appropriation of funds by the appropriate governmental authority, where necessary, and to the constitution, laws and regulations applicable to the respective Contracting Parties, including, but not limited to, laws establishing prohibitions upon the payment of commissions, percentages, brokerage or contingent fees to persons retained to solicit governmental contracts and upon any share of such contracts accruing to governmental officials.

(c) *Decisions of Agency Governing Board.* Participants in the various Tasks shall take account, as appropriate, of the Guiding Principles for Co-operation in the Field of Energy Research and Development, and any modification thereof, as well as other decisions of the Governing Board of the Agency in that field. The termination of the Guiding Principles shall not affect this Agreement, which shall remain in force in accordance with the terms hereof.

(d) *Settlement of Disputes.* Any dispute among the Contracting Parties concerning the interpretation or the application of this Agreement which is not settled by negotiation or other agreed mode of settlement shall be referred to a tribunal of three arbitrators to be chosen by the Contracting Parties concerned who shall also choose the Chairman of the tribunal. Should the Contracting Parties concerned fail to agree upon the composition of the tribunal or the selection of its Chairman, the President of the International Court of Justice shall, at the request of any of the Contracting Parties concerned, exercise those responsibilities. The tribunal shall decide any such dispute by reference to the terms of this Agreement and any applicable laws and regulations, and its decision on a question of fact shall be final and binding on the Contracting Parties concerned. Operating Agents which are not Contracting Parties shall be regarded as Contracting Parties for the purpose of this paragraph.

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Article 10

ADMISSION AND WITHDRAWAL OF CONTRACTING PARTIES

(a) *Admission of New Contracting Parties: Agency Countries.* Upon the invitation of the Executive Committee, acting by unanimity, admission to this Agreement shall be open to the government of any Agency Participating Country (or a national agency, public organization, private corporation, company or other entity designated by such government), which signs or accedes to this Agreement, accepts the rights and obligations of a Contracting Party, and is accepted for participation in at least one Task by the Participants in that Task, acting by unanimity. Such admission of a Contracting Party shall become effective upon the signature of this Agreement by the new Contracting Party or its accession thereto and its giving Notice of Participation in one or more Annexes and the adoption of any consequential amendments thereto.

(b) *Admission of New Contracting Parties: Other OECD Countries.* The government of any Member of the Organisation for Economic Co-operation and Development which does not participate in the Agency may, on the proposal of the Executive Committee, acting by unanimity, be invited by the Governing Board of the Agency to become a Contracting Party to this Agreement (or to designate a national agency, public organization, private corporation, company or other entity to do so), under the conditions stated in paragraph (a) above.

(c) *Admission of New Participants in Tasks.* Any Contracting Party may, with the agreement of the Participants in a Task, acting by unanimity, become a Participant in that Task. Such participation shall become effective upon the Contracting Party's giving the Executive Director of the Agency a Notice of Participation in the appropriate Task Annex and the adoption of consequential amendments thereto.

(d) *Contributions.* The Executive Committee may require, as a condition to admission to participation, that the new Contracting Party or new Participant shall contribute (in the form of cash, services or materials) an appropriate proportion of the prior budget expenditure of any Task in which it participates.

(e) *Replacement of Contracting Parties.* With the agreement of the Executive Committee, acting by unanimity, and upon the request of a government, a Contracting Party designated by that government may be replaced by another party. In the event of such replacement, the replacement party shall assume the rights and obligations of a Contracting Party as provided in paragraph (a) above and in accordance with the procedure provided therein.

(f) *Withdrawal.* Any Contracting Party may withdraw from this Agreement or from any Task either with the agreement of the Executive Committee, acting by unanimity, or by giving twelve months written Notice of Withdrawal to the Executive Director of the Agency, such Notice to be given not less than one year after the date hereof. The withdrawal of a Contracting Party under this paragraph shall not affect the rights and obligations of the other Contracting Parties; except that, where the other Contracting Parties have contributed to common funds for a Task, their proportionate shares in the Task Budget shall be adjusted to take account of such withdrawal.

(g) *Changes of Status of Contracting Party.* A Contracting Party other than a government or an international organization shall forthwith notify the Executive Committee of any significant change in its status or ownership, or of its becoming bankrupt or entering into liquidation. The Executive Committee shall determine whether any such change in status of a Contracting Party significantly affects the interests of the other Contracting Parties; if the Executive Committee so determines, then, unless the Executive Committee, acting upon the unanimous decision of the other Contracting Parties, otherwise agrees:

- (1) That Contracting Party shall be deemed to have withdrawn from the Agreement under paragraph (f) above on a date to be fixed by the Executive Committee; and
- (2) The Executive Committee shall invite the government which designated that Contracting Party to designate, within a period of three months of the withdrawal of that Contracting Party, a different entity to become a Contracting Party; if approved by the Executive Committee, acting by unanimity, such entity shall become a Contracting Party with effect from the date on which it signs or accedes to this Agreement and gives the Executive Director of the Agency a Notice of Participation in one or more Annexes.

(h) *Failure to Fulfil Contractual Obligations.* Any Contracting Party which fails to fulfil its obligations under this Agreement within sixty days after its receipt of notice specifying the nature of such failure and invoking this paragraph, may be deemed by the Executive Committee, acting by unanimity, to have withdrawn from this Agreement.

Article 11

FINAL PROVISIONS

(a) *Term of Agreement.* This Agreement shall remain in force for an initial period of two years from the date hereof, and shall continue in force thereafter unless and until the Executive Committee, acting by unanimity, decides on its termination.

(b) *Legal Relationship of Contracting Parties and Participants.* Nothing in this Agreement shall be regarded as constituting a partnership between any of the Contracting Parties or Participants.

(c) *Termination.* Upon termination of this Agreement, or any Annex to this Agreement, the Executive Committee, acting by unanimity, shall arrange for the liquidation of the assets of the Task or Tasks. In the event of such liquidation, the Executive Committee shall, so far as practicable, distribute the assets of the Task, or the proceeds therefrom, in proportion to the contributions which the Participants have made from the beginning of the operation of the Task, and for that purpose shall take into account the contributions and any outstanding obligations of former Contracting Parties. Disputes with a former Contracting Party about the proportion allocated to it under this paragraph shall be settled

under Article 9 (d) hereof, for which purpose a former Contracting Party shall be regarded as a Contracting Party.

(d) *Amendment.* This Agreement may be amended at any time by the Executive Committee, acting by unanimity, and any Annex to this Agreement may be amended at any time by the Executive Committee, acting by unanimity of the Participants in the Task to which the Annex refers. Such amendments shall come into force in a manner determined by the Executive Committee, acting under the voting rule applicable to the decision to adopt the amendment.

(e) *Deposit.* The original of this Agreement shall be deposited with the Executive Director of the Agency and a certified copy thereof shall be furnished to each Contracting Party. A copy of this Agreement shall be furnished to each Agency Participating Country, to each Member country of the Organisation for Economic Co-operation and Development and to the European Communities.

Done in Paris, this 13th day of November, 1980.

For the DEPARTMENT OF NATIONAL DEVELOPMENT
AND ENERGY
for and on behalf of the Government of Australia:

For the GOVERNMENT OF BELGIUM:

For the MINISTRY OF ENERGY
for and on behalf of the Government of Denmark:

For the KERNFORSCHUNGSANLAGE JÜLICH GmbH
(designated by the Government of Germany):

For the ENTE NAZIONALE IDROCARBURI
(designated by the Government of Italy):

For the ROYAL MINISTRY OF PETROLEUM
AND ENERGY
for and on behalf of the Government of Norway:

For the ENERGY RESEARCH AND DEVELOPMENT
COMMISSION
(designated by the Government of Sweden):

For the OFFICE FÉDÉRAL DE L'ÉNERGIE
for and on behalf of the Government
of Switzerland:

For the DEPARTMENT OF ENERGY
for and on behalf of the Government
of the United States of America:

For the COMMISSION OF THE EUROPEAN
COMMUNITIES:

Annex I

ENERGY TECHNOLOGY SYSTEMS ANALYSIS PROJECT

1. *Background and Objectives*

(a) *Background.* As a result of the decision by the IEA Governing Board in November, 1975 to develop an IEA Strategy for Energy Research, Development and Demonstration, a co-operative energy systems analysis activity was begun in February, 1976 for the purpose of providing the analytical basis for the Strategy. This activity was carried out on a task-sharing basis and was managed by a Steering Group on Research and Development Systems Analysis under the Committee on Energy Research and Development. Sixteen Participating Countries and the Commission of the European Communities participated in this activity, which was terminated by decision of the Steering Group on 31st December, 1979. By that time the co-operative work had developed a computer model, known as MARKAL, and a set of analytical results that have been used to develop an Energy Research, Development and Demonstration Strategy for the IEA.

(b) *Objectives.* The objectives of this Task are to provide for the continuation of a co-operative energy technology systems analysis activity in which the greater part of the analytical work will be carried out by Participants at the national level, with co-ordination and certain types of support being assured by a central support staff. The general objectives of the Task are to:

- (1) Increase the analytical capabilities of Participating Countries in the field of energy technology assessment;
- (2) Maintain a multilateral capability within the IEA for energy technology systems analysis by making use of and improving the data base and modelling techniques developed during Phase II of the IEA Energy Research and Development Systems Analysis Project.

Specific analytical objectives are as follows, with each objective to be pursued in a Subtask:

Subtask 1: Analyse the potential for energy saving through the application of conservation technologies.

Subtask 2: Review and expand the technology characterizations developed for the IEA Energy Research, Development and Demonstration Strategy Project; perform sensitivity analyses, and study the competitiveness of selected technologies.

Subtask 3: Review key assumptions about world-traded fuels and examine the sensitivity of results to variations in these assumptions.

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Subtask 4: Review the demand projections, the underlying assumptions for economic growth and other important items, and analyse the robustness of different scenarios.

Subtask 5: Investigate certain environmental questions including the requirements for labour, land, water and some structural materials, and specify the inventories of selected pollutants.

2. Means

The objectives shall be achieved by:

- (i) the establishment of an IEA Energy Technology Systems Analysis Support Centre comprising a Project Staff with computing facilities;
- (ii) the transfer of the MARKAL model to computing facilities in Participants' Countries;
- (iii) the carrying out of the five Subtasks and such other co-operative analytical tasks as may be agreed in the annual Programme of Work; and
- (iv) temporary visits of officials from Participants to the Support Centre at KFA Jülich.

3. Specific Responsibilities of the Operating Agent

- (a) *Project Staff.* For the purpose of carrying out the above objectives, the Operating Agent shall establish within ninety days of the signature of the Agreement a Project Staff composed of a Project Head, two scientific members and one clerical. The Project Staff resources shall at all times consist of at least the equivalent of four full-time positions, with the exact disposition of resources to be set by the Operating Agent.
- (b) *Co-ordination.* The Operating Agent shall be responsible for overall co-ordination of the Task.
- (c) *Computing Facilities.* The Operating Agent will maintain computing facilities adequate to carrying out the objectives of the Task.
- (d) *Access to Support Centre at KFA Jülich.* The Operating Agent shall accept visits by persons from each of the other Participants at KFA Jülich subject to prior notification and agreement between the Participants concerned and the Operating Agent on timing of the visit. In addition to making the necessary arrangements to facilitate access of Participants to KFA Jülich, the Operating Agent shall accept one person per Participant up to a maximum of three months each year and shall provide the necessary office space therefor, unless bilateral arrangements are made between the Participant concerned and the Operating Agent for officials to remain at KFA Jülich for extended periods to carry out computer analyses.
- (e) *MARKAL Availability.* The versions of the Matrix Generator developed at KFA Jülich during Phase II, Programme of Equations and Report

Generating Systems, current at the time of signature of the Agreement, shall be made available by the Operating Agent in tape form to any IEA Country and to the Commission of the European Communities without fee but upon payment of a charge covering tape costs and shipment. The Optimization Routine and the Matrix Generator to be used in this Task are proprietary and are only available by arrangement with the commercial supplier.

- (f) *Preparation of Draft Programme of Work and Reports.* The Operating Agent will prepare and submit to the Executive Committee prior to its first meeting a draft Programme of Work for the two year period of the Task. The Operating Agent will prepare, and submit to the Executive Committee for approval, no less than semi-annually, a draft technical progress report. Following approval, the Operating Agent will transmit these reports to the Agency and to the members of the IEA Committee on Energy Research and Development.

The Committee on Energy Research and Development may, during this Task, propose additions to the Programme of Work. The Executive Committee shall, acting by unanimity, decide whether these proposals will be added to the Programme.

4. *Specific Responsibilities of the Other Participants*

Each Participant in this Task other than the Operating Agent is required to participate in at least one of the five Subtasks mentioned in paragraph 1 (b).

5. *Funding*

- (a) *Common Financial Obligations.* Based upon a Project Staff as described in paragraph 3 above, the Operating Agent estimates the annual costs of the Support Centre in 1980 prices at DM. 400,000. These costs include computing costs sufficient to cover aggregation runs and test runs for model improvement. The costs of other runs carried out by the Operating Agent for the Task are to be shared by agreement with the Participant(s) concerned.

The costs of maintaining and operating the Support Centre will be divided equally among all Participants.

- (b) *Individual Financial Obligations.* Aside from the contributions described in sub-paragraph (a) above each Participant shall bear all the costs it incurs in carrying out this Task.

6. *Time Schedule*

The duration of this Task shall be two years. It may be extended by decision of the Executive Committee, acting by unanimity.

7. *Operating Agent*

The Kernforschungsanlage Jülich GmbH (KFA Jülich).

8. *Information and Intellectual Property*

- (a) *Executive Committee Powers.* The publication, distribution, handling, protection and ownership of information and intellectual property arising from this Annex shall be determined by the Executive Committee, acting by unanimity, in conformity with this Agreement.
- (b) *Right to Publish.* Subject only to copyright restrictions, the Participants in this Annex (referred to in this Annex as the "Participants") shall have the right to publish all information provided to or arising from this Annex except proprietary information, but they shall not publish it with a view to profit, except as agreed by the Executive Committee, acting by unanimity.
- (c) *Proprietary Information.* The Operating Agent and the Participants shall take all necessary measures in accordance with this Annex, the laws of their respective countries, and international law to protect proprietary information. For the purposes of this Annex, proprietary information shall mean information of a confidential nature, such as trade secrets and know-how (for example, computer programmes, design procedures and techniques, chemical composition of materials, or manufacturing methods, processes, or treatments), that is appropriately marked, provided such information:
 - (1) Is not generally known or publicly available from other sources;
 - (2) Has not previously been made available by the owner to others without obligation concerning its confidentiality; and
 - (3) Is not already in the possession of the recipient Participant without obligation concerning its confidentiality.

It shall be the responsibility of each Participant supplying proprietary information to identify the information as such and to ensure that it is appropriately marked.

- (d) *Production of Relevant Information by Governments.* The Operating Agent should encourage the governments of all Agency Participating Countries to make available or to identify to the Operating Agent all published or otherwise freely available information known to them that is relevant to the Task. The Participants should notify the Operating Agent of all pre-existing information, and information developed independently of the Task known to them which is relevant to the Task and which can be made available to the Task without contractual or legal limitations.
- (e) *Production of Available Information by Participants.* Each Participant agrees to provide to the Operating Agent all previously existing information and information developed independently of the Annex, which is needed by the Operating Agent to carry out its functions in this Task and which

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is freely at the disposal of the Participant and the transmission of which is not subject to any contractual and/or legal limitations.

- (1) If no substantial cost is incurred by the Participant in making such information available, at no charge to the Task;
 - (2) If substantial costs must be incurred by the Participant to make such information available, at such charges to the Task as shall be agreed between the Operating Agent and the Participant with the approval of the Executive Committee.
- (f) *Use of Confidential Information.* If a Participant has access to confidential information which would be useful to the Operating Agent in conducting studies, assessments, analyses, or evaluations, such information may be communicated to the Operating Agent but shall not become part of reports, handbooks, or other documentation, nor be communicated to the other Participants except as may be agreed between the Operating Agent and the Participant which supplies such information.
- (g) *Acquisition of Information for the Task.* Each Participant shall inform the Operating Agent of the existence of information known to the Participant that can be of value to the Task, but which is not freely available, and the Participant shall endeavour to make the information available to the Task under reasonable conditions, in which event the Executive Committee may, acting unanimously, decide to acquire such information.
- (h) *Reports on Work Performed under the Task.* The Operating Agent shall provide reports of all work performed under the Task and the results thereof, including studies, assessments, analyses, evaluations and other documentation, but excluding proprietary information, to the Participants.
- (i) *Copyright.* The Operating Agent may take appropriate measures necessary to protect copyrightable materials generated under this Task. Copyrights obtained shall be the property of the Operating Agent for the benefit of the Participants, provided, however, that Participants may reproduce and distribute such material, but shall not publish it with a view to profit, except as otherwise directed by the Executive Committee.
- (j) *Authors.* Each Participant shall, without prejudice to any rights of authors under its national laws, take necessary steps to provide the co-operation with its authors required to carry out the provisions of this paragraph. Each Participant will assume the responsibility to pay awards or compensation required to be paid to its employees according to the laws of its country.

9. Results

The results of this Task will be:

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- (a) Maintenance and improvement of an international capability for the analysis of new energy technologies and their future prospects; and
 - (b) Periodic reports on analytical studies undertaken in connection with the Task.

10. *Participants*

The Contracting Parties which are Participants in the Task are the following:

The Department of National Development and Energy (Australia),

The Government of Belgium,

The Ministry of Energy (Denmark),

The Kernforschungsanlage Jülich GmbH (Germany),

The Ente Nazionale Idrocarburi (Italy),

The Royal Ministry of Petroleum and Energy (Norway),

The Energy Research and Development Commission (Sweden),

The Office Fédéral de l'Énergie (Switzerland),

The Department of Energy (United States of America),

The Commission of the European Communities.