INTERNATIONAL ENERGY AGENCY IMPLEMENTING AGREEMENT

FOR A

CO-OPERATIVE PROGRAMME ON GEOTHERMAL ENERGY RESEARCH AND TECHNOLOGY

(Geothermal Agreement)

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(Geothermal Agreement)

The Contracting Parties

CONSIDERING that the governments of countries which are Members of the International Energy Agency (the "Agency") 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;

CONSIDERING that the Contracting Parties, as defined in Article 3.2 of the IEA Framework (Exhibit A of this document), wish to take part in the establishment and operation of a Co-operative Programme on Geothermal Energy Research and Technology (Geothermal Agreement) as provided in this Agreement;

CONSIDERING that the Contracting Parties wish to hold open to governments of other Agency countries or parties designated by their respective governments the opportunity to participate in the Programme as Contracting Parties, and to hold open to governments of non-Members of the Agency or their designees, and international organizations in which one or more such governments participate, the opportunity to participate in the Programme;

CONSIDERING that the Governing Board of the Agency on 19 June 1996 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 energy research and development;

HAVE AGREED as follows:

OBJECTIVES

(a) Scope of Activity. The Programme to be carried out by the Contracting Parties within the framework of this Agreement shall consist of international scientific collaborative efforts to compile and exchange improved information on geothermal energy research and development worldwide concerning existing and potential technologies and practices, to develop improved technologies for geothermal energy utilization, and to improve the understanding of geothermal energy's environmental benefits and ways to avoid or ameliorate its environmental drawbacks.

(b) Co-ordination. In carrying out their functions under this Agreement, the Contracting Parties and the Operating Agent shall, as appropriate, co-ordinate their activities with those under other Agency Implementing Agreements as well as with those of other competent bodies in order to avoid duplication and enjoy mutual benefits from existing resources and expertise.

(c) Method of Implementation. The Contracting Parties shall implement the Programme by undertaking one or more tasks (the "Task" or "Tasks") described in Annexes to this Agreement. Each Annex 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".

(d) Task Co-ordination and Co-operation. The Contracting Parties shall co-operate in co-ordinating the work of the Task and shall endeavour, on the basis of an appropriate sharing of burdens and benefits, to encourage co-operation among Participants engaged in the Tasks with the objective of advancing the state of understanding of all Contracting Parties in the field of geothermal energy research and technology.

ORIGINAL AND ADDITIONAL ANNEXES

(a) Original Annexes. Annexes integrated into the Agreement at the time of its entry into force (Annexes I, III and IV) are referred to in this paragraph as the "Original Annexes." The participation in any Original Annex of any Contracting Party identified in that Annex shall become effective upon the receipt by the Executive Director of the Agency of written notice of the participation in that Annex by the Contracting Party and the entry into force of this Agreement. Article 11 (d) below shall apply to any Contracting Party which wishes to become a Participant in any original Annex after this Agreement has entered into force.

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

- (1) Whenever two or more Contracting Parties wish to undertake a new Task, they shall submit to the Executive Committee a draft Annex similar in form to the Annexes hereto, containing a description of the Task proposed to be performed;
- (2) The Executive Committee shall decide on the adoption of any such "additional" Annex by majority pursuant to Article 3(e)(2) below;
- (3) The participation in any adopted Annex by any Contracting Party identified therein shall become effective upon receipt by the Executive Director of the Agency of written notice of the participation in that Annex by the Contracting Party. Article 11(d) below shall apply to any Contracting Party which wishes to become a Participant in any additional Annex after that Annex has been adopted by the Executive Committee;
- (4) In carrying out the various Tasks, the Participants and Operating Agents 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.

THE EXECUTIVE COMMITTEE

(a) Supervisory Control. Control of the Programme shall be vested in the Executive Committee constituted under this Article. Decisions made by the Executive Committee pursuant to this Agreement shall be binding on the Contracting Parties and Operating Agents to the extent that such decisions and their implementation are not inconsistent with the laws and regulations in force in their respective countries.

(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 two years; the Executive Committee may, acting by unanimity, as required, make adjustments within the framework of the Programme of Work and Budget;
 - (2) Adopt, acting by unanimity, such rules and regulations as may be required for the sound management of the Tasks, including financial rules as provided in Article 7 below;
 - (3) Invite, acting by unanimity, subject to prior approval by the Executive Director of the Agency, representatives of non-Agency countries to participate in any Executive Committee meeting, workshop, seminar, conference or other event;
 - (4) Carry out the other functions conferred upon it by this Agreement and the Annexes hereto; and
 - (5) Consider any matters submitted to it by any of the Operating Agents or by any Contracting Party.

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

- (1) The Executive Committee shall each year elect a Chairperson and one or more Vice-Chairpersons;
- (2) The Executive Committee may establish such subsidiary bodies and rules of procedure as are required for its proper functioning;

- (3) Representatives 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 with no voting rights;
- (4) The Executive Committee shall meet in regular session not more than twice each year; a special meeting shall be convened upon the request of any Contracting Party which can demonstrate the need therefore;
- (5) Meetings of the Executive Committee shall be held at such times and at such places as may be designated by the Executive Committee;
- (6) 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;
- (7) The quorum necessary for the Executive Committee to transact business associated with its responsibilities under Article 3(c) above 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; and
- (8) The Chairperson of the Executive Committee shall ensure that Minutes of each meeting clearly describing actions taken and any resolutions adopted are distributed promptly after the meeting to each person or entity entitled to attend the meeting.
- (e) Voting.
 - (1) When the Executive Committee adopts a decision or recommendation for or concerning a particular Task, it 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 as defined in (2)(i) below;
 - (*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 the members or alternate members as defined in (2)(*i*) below, 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.

- (i) The definition of "unanimity" is as follows:
 - (a) The agreement of the members or alternate members present and voting, plus
 - (b) The agreement of those members who did not attend the Executive Committee meeting obtained by e-mail. (The non-attending members will be sent a list of items to vote on by e-mail. (a) If they do not vote within 1 week of receipt of the request to vote, they are considered to have "abstained", hence having no affect on unanimity. (b) If they vote "NO", they must include a clear explanation of why they did so.
 - (c) A decision reached at an ExCo meeting will stand regardless of any opposing votes of non-attending members until a new unanimous decision is reached.
- (4) Members or alternate members abstaining shall be considered as not voting.
- (5) If a government has designated more than one Contracting Party to this Agreement, the members or alternate members designated by those Contracting Parties together may cast only one vote under this paragraph.
- (5) Any decision or recommendation by the Executive Committee may, with the agreement of each member or alternate member entitled to act thereon, be made by mail, telefax, telex, cable or other means of electronic transmission without the necessity for calling a meeting. Such action shall be taken by unanimity or majority of such members as in a meeting. The Chairperson 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, by 31st January each year, provide the Agency with 30 copies of a report containing technically substantive, non-proprietary information on the progress of the Programme and its results.

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. Subject to the provisions of the applicable Annex:
 - (1) The Operating Agent may enter into any contract or perform any other legal act, not inconsistent with provisions of this Agreement or with decisions of the Executive Committee, that are required to administer the Task for the benefit of the Participants;
 - (2) The Operating Agent shall hold, in trust for and 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 administer the Task under its supervision and responsibility, subject to this Agreement, in accordance with the laws in force in the country of the Operating Agent. Neither the Operating Agent, nor its experts, employees, agents, representatives or contractors shall be entitled to commit the Participants to any expenditure whatsoever.

(c) Reimbursement 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 7 below.

(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 other 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 in its function of Operating Agent 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.

(g) Transfer of Rights. In the event that another Operating Agent is appointed under paragraph (d) or (e) above, the Operating Agent shall promptly transfer to such replacement Operating Agent any property rights which it holds in trust for and for the benefit of the Participants in the respective Annex, and shall assist the replacement Operating Agent for at least three months after the replacement Operating Agent has assumed its functions.

(*h*) Information and Report. Each Operating Agent shall furnish to the Executive Committee such information concerning the Task as the Executive Committee may request and shall each year submit to the Executive Committee and the Agency, not later than two months after the end of the financial year established pursuant to Article 7(g)(1) below, a report on the status of the Task.

THE SECRETARY

(a) Designation; Scope of Authority. The Executive Committee, acting by unanimity, may designate a secretary (the "Secretary") to:

- (1) Make and distribute agendas, Minutes, and other documents of Executive Committee meetings;
- (2) Prepare decisions and recommendations in accordance with Article 3(e)(5) above;
- (3) Assist the Executive Committee and its Chairman in carrying out their responsibilities under Articles 3(c)(3), 3(d)(8), 3(e)5, 3(f) and 12(d) of this Agreement;
- (4) Assist the Executive Committee in the overall co-ordination of the work in the different Annexes; and
- (5) Undertake such other activities as may be required by the Executive Committee to assist it in carrying out its responsibilities under this Agreement.

The Secretary shall carry out its functions under the supervision of the Executive Committee. Representatives of the Secretary may attend meetings of the Executive Committee and its subsidiary bodies in an advisory capacity with no voting rights.

(b) Reimbursement of Costs. The Executive Committee may provide that expenses and costs incurred by the Secretary under this Article be reimbursed to the Secretary from the common fund which the Executive Committee may establish under the first sentence of Article 7(b) below.

(c) Contracting. The Secretary may, with the prior approval of the Executive Committee acting by unanimity and in accordance with the Programme of Work and Budget, enter into contracts for necessary and appropriate support or consultancy services.

(*d*) *Replacement*. Should the Executive Committee wish to replace the Secretary with another entity, the Executive Committee may, acting by unanimity, take such action.

(e) Resignation. The Secretary shall have the right to resign at any time by giving six months written notice to that effect to the Executive Committee.

(f) Information and Report. The Secretary shall furnish the Executive Committee with such information concerning its work as the Executive Committee may request.

ADMINISTRATION, STAFF, CONSULTANTS

(a) Administration of Tasks. Each Operating Agent shall be responsible to the Executive Committee for administering 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 7(g)(6) below.

(c) Consultants. The Operating Agent may, with the prior approval of the Executive Committee acting by unanimity, and in accordance with the Programme of Work and Budget for a particular Task, enter into contracts for consultancy services to assist it in administering the Task.

FINANCE

(a) Individual Financial Obligations. Each Contracting Party shall bear the costs it incurs in carrying out Programme activities, 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 (b) below.

(b) Common Financial Obligations. The Executive Committee may agree, acting by unanimity, to establish a common fund to share the costs of its responsibilities and activities set forth under Article 3 above. In addition, Participants wishing to share the costs of a particular Task shall agree in the appropriate Task Annex to establish a separate common fund. The apportionment of contributions to such costs (whether in the form of cash, services rendered, intellectual property or the supply of materials) as well as the management and the use of such common funds shall be governed by the regulations and decisions made pursuant to this Article by the Executive Committee, acting by unanimity.

(c) Custodians and Beneficiaries of Common Funds. Should the Executive Committee decide to establish a common fund to share the costs of its responsibilities and activities, it shall designate a custodian to hold the common fund in custody or possession for the benefit of the Contracting Parties. Should the Participants in a Task decide to establish a common fund to share the costs of that Task, the Operating Agent of that Task shall serve as custodian to hold the common fund of that Task in custody or possession for the benefit of the Participants in that Task. The custodians which hold common funds under this paragraph in custody or possession are referred to in this Article as the "Custodians", and the Contracting Parties or Participants in a Task for whose benefit the common funds are held by the Custodians are referred to in this Article as the "Beneficiaries".

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

- (1) Establishment of budgetary and procurement procedures to be used by the Custodians in making payments from the appropriate common fund or in making contracts on behalf of the Beneficiaries; and
- (2) Establishment of minimum levels of expenditure for which Executive Committee approval shall be required, including expenditure involving payment of monies to the Custodian 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 Custodian shall take into account the necessity of ensuring a fair distribution of such expenditure in the Beneficiaries' countries, where this is fully compatible with the most efficient technical and financial management.

(e) Crediting of Income to Common Fund. Any income which accrues from the Programme shall be credited to the appropriate common fund.

(f) Accounting. The system of accounts employed by the Custodian shall conform to accounting principles generally accepted in the country of the Custodian and shall be consistently applied.

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

- (1) The financial year shall correspond to the financial year of the Custodian;
- (2) The Custodian shall, not later than three months before the beginning of each financial year, prepare and submit to the Executive Committee for unanimous approval a draft Programme of Work and Budget, together with an indicative Programme of Work and Budget for the following two years; the Executive Committee shall transmit the Programme of Work and Budget, once approved, to the Agency and to the Chairman of the Agency's Committee on Energy Research and Technology;
- (3) The Custodian shall maintain complete and separate financial records, which shall clearly account for all funds and property coming into the custody or possession of the Custodian in connection with this Agreement;
- (4) Not later than three months after the close of each financial year, the Custodian shall submit for audit, to auditors selected by the Executive Committee, the annual accounts maintained for the Task; upon completion of the annual audit, the Custodian shall present the accounts together with the auditors' report to the Executive Committee for approval at its next meeting thereafter;
- (5) All books of account and records maintained by the Custodian for the Programme shall be preserved for at least three years from the date of termination of its services to the Programme; and
- (6) Upon unanimous approval by the Executive Committee, a Beneficiary supplying services, materials or intellectual property to the Programme shall be entitled to a credit, 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 (or compensation) for services of staff

shall be calculated on an agreed scale approved by the Executive Committee and shall include all payroll-related costs.

(*h*) Contribution to Common Funds. Should Contracting Parties or Participants in a Task agree to establish common funds under the appropriate annual Programme of Work and Budget, any financial contributions due from Beneficiaries shall be paid to the Custodian, in the currency of the country of the Custodian or in other currency specified by the Custodian in agreement with the Executive Committee, 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 Custodian shall be used solely in accordance with the appropriate Programme of Work and Budget; and
- (2) The Custodian shall be under no obligation to carry out any work on the Programme until contributions amounting to at least fifty per cent (in cash terms) of the total due at any one time have been received.

(*i*) Ancillary Services. Ancillary services may, as agreed between the Executive Committee and the Custodian, be provided by that Custodian and the cost of such services, including overheads connected therewith, may be met from budgeted funds.

(j) Taxes. The Custodian 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 the Programme, as expenditure incurred in the operation under the appropriate Budget; the Custodian shall, however, endeavour to obtain all possible exemptions from such taxes, and the Beneficiaries shall assist the Custodian in its endeavours.

(k) Audit. Each Beneficiary shall have the right, at its sole cost, to audit the accounts of any work in the Programme for which common funds are maintained, on the following terms:

- (1) The Custodian shall provide the Beneficiaries with an opportunity to participate in such audits on a cost-shared basis;
- (2) Accounts and records relating to activities of the Custodian other than those conducted for the Programme shall be excluded from such audit, but if the Beneficiary concerned requires verification of charges to the Budget representing services rendered to the Programme by the Custodian, it may, at its own cost, request and obtain an audit certificate in this respect from the auditors of the Custodian;
- (3) Not more than one such audit shall be required in any financial year; and
- (4) Any such audit shall be carried out by not more than three representatives of the Participants.

INFORMATION AND INTELLECTUAL PROPERTY

(a) Application to Agreement and Annexes. Pursuant to the General Guidelines Concerning Information and Intellectual Property, adopted by the Governing Board of the Agency on 21st November, 1975, and any modification thereof, the following information and intellectual property provisions shall apply generally to this Agreement and each of its constituent Annexes. Exceptions or additions to these provisions may be made in any particular Annex, in which case they shall apply to that Annex alone.

(b) Executive Committee's Powers. The publication, distribution, handling, sharing, protection and ownership of information and intellectual property provided under or arising from the Programme, shall be determined by the Executive Committee, acting by unanimity, in conformity with this Agreement and the laws of the countries of the Contracting Parties and Operating Agent. The Contracting Parties shall favour the widest possible dissemination of information provided to, exchanged or arising under the Programme, subject to the need to protect proprietary, including confidential, information.

(c) Copyright. With respect to Annex activities, each Participant shall hold the copyrights for its own work, and the Operating Agent shall hold other copyrights generated under the Annex in trust for and for the benefit of the Participants in accordance with Article 4(b)2 above. With respect to common Programme activities, each Contracting Party shall hold the copyright for its own work, and the Contracting Party whose Executive Committee member serves as Chairman of the Executive Committee shall hold other copyrights generated under the Programme in trust for and for the benefit of the Contracting Parties, unless otherwise decided by the Executive Committee, acting by unanimity. The Contracting Parties shall take all appropriate measures necessary to protect copyrightable material generated under this Agreement.

(d) Inventors and Authors. Each Contracting Party shall, without prejudice to any rights of inventors and authors under its national laws, take necessary Steps to provide the co-operation with its inventors and authors required to carry out the provisions of this Article. Each Contracting Party will assume the responsibility to pay awards or compensation required to be paid to its employees according to the laws of its country.

(e) Proprietary Information. The Operating Agent and the Contracting Parties shall take all necessary measures in accordance with this Article, the laws of their respective countries, and international law to protect proprietary information. For the purpose of this Article, proprietary information shall include 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) which:

(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 Participants without obligation concerning its confidentiality.

It shall be the responsibility of each Contracting Party supplying proprietary information, and of the Operating Agent for arising proprietary information, to identify the information as such and to ensure that it is marked "Proprietary Information".

(f) Production of Relevant Information by Governments. The Operating Agent shall encourage the governments of all Agency 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.

(g) Production of Available Information by Participants. Each Participant shall, in accordance with the terms and conditions agreed upon with the Operating Agent within the scope of rules, procedures and guidelines that may be established by the Executive Committee, provide, preferably in English, to the Operating Agent all previously existing information and information developed independently of the Task which is necessary to the Task and 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; and
- (2) If substantial costs must be incurred by the Participant to make such information available, at such charge to the Task as shall be agreed between the Operating Agent and the Participant with the approval of the Executive Committee. Such information shall be made available, preferably in English, in accordance with the definitions, rules and guidelines that may be established by the Executive Committee.

(*h*) 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 shall be communicated to the Operating Agent at no cost in accordance with an agreement between the Operating Agent and the specific Participant setting forth the terms and conditions for such acceptance; but the confidential information shall not become part of reports, handbooks or other documentation, nor be communicated to the other Participants, or to non-Participants, except as shall be agreed in writing between the Operating Agent and the Participant which supplied such information.

(*i*) Arising Proprietary Information. It shall be the responsibility of the Operating Agent to promptly identify information arising from its respective Annex, including computer software developed under that Annex, which qualifies as proprietary

information under this Article and to ensure that it is marked "Proprietary Information." If any Participant in the particular Task questions the decision of the Operating Agent regarding the proprietary nature of arising information, the question shall be submitted to the Executive Committee for decision. Proprietary information arising from any Task shall be owned by the Operating Agent, who shall hold it in trust for and for the benefit of the Participants in the Task.

(*j*) *Inventions*. For arising information regarding inventions, the following rules shall apply, except as otherwise directed with regard to any particular Annex by the Executive Committee, acting by unanimity:

- (1) The Operating Agent shall promptly identify and report to the Executive Committee any arising information regarding inventions together with a recommendation of the countries in which patent applications should be filed. The Executive Committee shall, acting by unanimity of the Participants, determine whether, where and when patent applications shall be filed by the Operating Agent at the expense of the Task;
- (2) Information regarding inventions on which patent protection is to be obtained shall not be published or publicly disclosed by the Operating Agent or the Participants until a patent application has been filed, provided, however, that this restriction on publication or disclosure shall not extend beyond twelve months from the date of reporting of the invention. It shall be the responsibility of the Operating Agent to appropriately mark Task reports which disclose inventions which have not been appropriately protected by the filing of a patent application; and
- (3) Patents obtained shall be owned by the Operating Agent which shall hold the patent in trust for and for the benefit of the Participants.

(k) Acquisition of Information. Each Participant shall inform the Operating Agent of the existence of pre-existing information, and information developed independently of the task, known to it that can be relevant to the Task, but which is not freely available. The Participant shall endeavour to make the information available to the Task under reasonable conditions, in which event the Executive Committee may, acting by unanimity, decide to authorize the Operating Agent to acquire, under terms and conditions stipulated by the Executive Committee, such information which the Operating Agent shall hold for the benefit of the Participants.

(1) Exchange of Information with Others. With regard to any particular Annex, the Executive Committee may, acting by unanimity, make arrangements for the acquisition of information from sources other than the Participants in an Annex. The Executive Committee, acting by unanimity, shall determine for any particular Annex the rules by which information available to Participants in that Annex may be made available to governments, utilities, research institutions, and other appropriate entities of countries which do not participate in that Annex.

(*m*) Licensing of Arising and Pre-Existing Information. The Operating Agent shall license acquired or arising proprietary information, including computer software, for non-exclusive use as follows:

- (1) To each Participant in the Task:
 - (*i*) On the most favourable terms and conditions for use by the Participant in its own country; and
 - (*ii*) On favourable terms and conditions for the purpose of sub-licensing others for use in its own country.

In each case, the terms and conditions shall be stipulated by the Executive Committee taking into account the equities of the Participants based upon the sharing of obligations, contributions, rights and benefits of all Participants;

- (2) Subject to sub-paragraph (1) above, to each Participant in the Task for use in all countries, on reasonable terms and conditions stipulated by the Executive Committee, taking into account the equities of the Participants based upon the sharing of obligations, contributions, rights and benefits of all Participants;
- (3) To the government of any Agency country and nationals designated by it, for use in such country in order to meet its energy needs, on terms and conditions stipulated by the Executive Committee, taking into account any equitable conditions which might arise from the support provided by the Agency to the Task; and
- (4) To entities and persons not mentioned above in this paragraph, if agreed by the Executive Committee, on terms and conditions stipulated by the Executive Committee.

Royalties, if any, under licences pursuant to this paragraph shall be credited to the Budget of the Task, or, in the event that no Budget to the Task is foreseen, shall be held by the Operating Agent in trust for and for the benefit of the Participants.

(*n*) Information Use and Application. Information transmitted by one Participant to another Participant, or the Operating Agent under any Annex, shall be accurate to the best knowledge and belief of the transmitting Participant, but the transmitting Participant does not warrant the suitability of the information transmitted for any particular use or application.

(o) Reports on Work Performed. Each Participant and the Operating Agent shall provide reports on all work performed under the Task and the results thereof, including studies, assessments, analyses, evaluations and other documentation, but excluding proprietary information, to the other Participants. Reports summarizing the work

performed and the results thereof shall be prepared by the Operating Agent and forwarded to the Executive Committee and the Agency.

(*p*) Access to Information and Reports. Participants in each Annex shall be entitled without charge to have access to, to reproduce and, in accordance with the rules determined by the Executive Committee, to distribute to nationals of its country, the information and reports produced by the Operating Agent of that Annex. The Executive Committee may lay down guidance as to the use any Participant may make of the information and, where appropriate, the charges to be imposed, and may establish guidelines to determine what constitutes a "national".

(q) Effect of Termination or Withdrawal. The Executive Committee shall, at the time of the termination of this Agreement or any Annex or the withdrawal of any Contracting Party, adopt appropriate measures for the subsequent application of paragraph (o) above and related questions, which shall include rules as to the use any previous Participant may make of the information and, where appropriate, the charges to be imposed.

LEGAL RESPONSIBILITY AND INSURANCE

(a) Liability of the 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. Subject to paragraph (c) below, the cost of all damage to persons or 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 work for a Task not undertaken with common funds shall be charged to the Budget of that Task if the 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) Responsibility of the Operating Agent. Subject to the provisions of the applicable Annex, the Operating Agent shall be responsible, in its capacity as such, for any damage to persons or property and all legal liabilities, actions, claims, costs and expenses connected therewith to the extent that they:

- (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 willful misconduct of any officers or employees of the Operating Agent in carrying out their duties under this Agreement.

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 may be required to conduct the Task in which it is engaged.

(b) Appropriation of Funds and 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 and to the constitutions, 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 the accrual of any share of such contracts to governmental officials.

(c) Notwithstanding Article 7 of the IEA Framework for International Energy Technology Co-operation, adopted by the IEA Governing Board on 3 April 2003, the Framework shall apply to, and be an integral part of, this Agreement from 22 September 2005. A copy of the Framework is attached as Exhibit A to this Implementing Agreement.

(d) Settlement of Disputes. Any dispute among the Contracting Parties arising in connection with 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 the 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 purposes of this paragraph.

ADMISSION AND WITHDRAWAL OF CONTRACTING PARTIES

(a) Admission of New Contracting Parties. Upon the invitation of the Executive Committee, acting by unanimity, admission to this Agreement shall be open to:

- 1) the governments of both OECD member or OECD non-member countries;
- 2) the European Communities;
- 3) international organizations in which the governments of OECD member countries and/or OECD non-member countries participate; and
- 4) any national agency, public organization, private corporation or other entity designated by the government of an OECD member country or an OECD non-member country, or by the European Communities.

(b) Conditions of Participation. The Executive Committee shall establish the terms and conditions for the admission, participation and withdrawal of Contracting Parties, including their rights and obligations, subject always to the IEA Framework for International Energy Technology Co-operation as adopted by the Governing Board of the Agency on 3 April 2003, and any amendments thereto.

(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 receipt by the Executive Director of the Agency of written notice of the participation in the appropriate Task Annex by the Contracting Party, 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, materials or intellectual property) 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. In the event of such replacement, the replacement Contracting Party shall be deemed to have assumed any outstanding financial contributions of the replaced Contracting Party to any common fund established for a Task in accordance with Article 7(b) above.

(f) Withdrawal. Any Contracting Party may withdraw from this Agreement or from any Annex, 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, the Executive Committee, acting by unanimity, shall decide whether to adjust the proportionate shares of the Participants in the Task Budget or to adjust the Programme of Work and Budget of the Task 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 (g) 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 Fulfill Contractual Obligations. Any Contracting Party which fails to fulfill its obligations under this Agreement within sixty days after its receipt of notice from the Executive Committee, specifying the nature of such failure and invoking this paragraph, may be deemed by the Executive Committee, acting by unanimity of the other Contracting Parties, to have withdrawn from this Agreement.

FINAL PROVISIONS

(a) Term of Agreement. This Agreement shall enter into force upon signature by two or more Contracting Parties and shall remain in force for an initial period of five years. It may be extended for such additional periods as may be determined by the Executive Committee, acting by unanimity, with the prior approval of the Governing Board of the Agency. Prior to the expiration of the initial or any extension period, the Executive Committee shall complete a review of the effectiveness of this Agreement in accordance with guidelines established by the Agency, and shall report the results of such review to the CERT. The Executive Committee may, acting by unanimity, terminate this Agreement at any time.

(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. Operating Agents which are not Contracting Parties shall be regarded as Contracting Parties for the purpose of this paragraph.

(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; intellectual property held by the Operating Agents for the benefit of the Participants shall for this purpose be regarded as assets of the respective Task. In the event of such liquidation, the Executive Committee shall, so far as practicable, distribute the assets of the Task, or the proceeds there from, 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.

(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. The Chairperson of the Executive Committee shall ensure that all Executive Committee members and the Agency are informed of each amendment to this Agreement, or any Annex thereto.

(e) Deposit. The original of this Agreement, including any amendments thereto, shall be deposited with the Executive Director of the Agency and a certified copy thereof may be furnished by the Secretariat of the Agency to each Contracting Party and to the Operating Agents. A copy of this Agreement may be furnished by the Secretariat of the Agency to each Agency Participating Country, to each Member country of the OECD and to the Commission of the European Communities.

List of Contracting Parties as of September 2005:

COMMISSION OF THE EUROPEAN COMMUNITIES

NEW ENERGY AND INDUSTRIAL TECHNOLOGY DEVELOPMENT ORGANIZATION (designated by the Government of Japan)

INSTITUTE OF GEOLOGICAL AND NUCLEAR SCIENCES LTD. (IGNS) (designated by the Government of New Zealand)

FEDERAL OFFICE OF ENERGY for and on behalf of the Government of Switzerland

THE UNITED STATES DEPARTMENT OF ENERGY, for and on behalf of the Government of the United States of America

PRIMARY INDUSTRIES AND RESOURCES OF SOUTH AUSTRALIA (PIRSA) (designated by the Government of Australia)

FORSCHUNGSZENTRUM JÜLICH GmbH (designated by the Government of Germany)

ORKUSTOFNUN (NATIONAL ENERGY AUTHORITY) (designated by the Government of Iceland)

ENEL PRODUZIONE (designated by the Government of Italy)

INSTITUTO DE INVESTIGACIONES ELECTRICAS (designated by the Government of Mexico)

KOREA INSTITUTE OF GEOSCIENCE & MINERAL RESOURCES (KIGAM) (designated by the Government of the Republic of Korea)

Annex I

ENVIRONMENTAL IMPACTS OF GEOTHERMAL ENERGY DEVELOPMENT

1. Objectives

The objectives of this Task are to:

- (a) Quantify the beneficial and adverse impacts that existing geothermal developments have had on the environment and determine their cause;
- (b) Identify geothermal energy development technologies and practices that have proven to be environmentally sound and identify new techniques for development.

2. Means

The Participants shall share the co-ordinated work necessary to carry out this Task.

- (a) The objectives shall be achieved by the Participants through the following Subtasks:
 - (1) Subtask A: Surveys of Environmental Impacts of Geothermal Development Projects

Participants shall study the effects that geothermal developments have had on the environment, determine their cause, and identify the most likely and serious adverse effects that geothermal developments can have on the environment. The work shall focus on well-documented case studies, in order to contrast successful and unsuccessful approaches for dealing with each type of environmental impact. The work shall include scientific, social (cultural), and economic aspects, as appropriate. The surveys shall distinguish between environmental effects that are short-term and those which are long-term or irreversible whenever possible. Each Participant shall prepare case studies from that country. An attempt shall also be made to gather interesting case studies from non-participating countries. The surveys shall cover, but are not limited to, the following topics:

- minimizing impacts on natural features;
- improving the disposal of waste liquids;
- reducing effects of gas discharges;
- improving plant efficiency; and
- environmentally responsible management of development.

(2) Subtask B: Evaluation of Existing Methods of Mitigating Adverse Environmental Effects and Development of New Methods

Participants shall evaluate the effectiveness of methods (countermeasures) currently used to mitigate adverse environmental effects of geothermal projects, and shall develop recommendations for improved mitigation methods which are less costly and enhance environmental benefits.

(3) Subtask C: Methods of Impact Mitigation and Environmental Manual

Participants shall contribute to the future of geothermal energy development by developing an effective, standard environmental analysis process. Field management strategies that result in improved environmental outcomes will be identified and promoted based on operational experience. Successful mitigation schemes that provide developers and regulators with options for compensating unavoidable effects are also being identified, documented and promoted.

(4) Subtask D: Seismic Risk From Fluid Injection Into Enhanced Geothermal Systems

Participants will pursue a collaborative effort to address an issue of significant concern to the acceptance of geothermal energy in general but EGS in particular. The issue is the occurrence of significant seismic events in conjunction with EGS reservoir development or subsequent extraction of heat from underground. These events have been large enough to be felt by populations living in the vicinity of current geothermal development sites. The objective is to investigate these events to obtain a better understanding of why they occur so that they can either be avoided or mitigated.

Understanding requires considerable effort to assess and generate an appropriate source parameter model, testing of the model, and then calculating the source parameters in relation to the hydraulic injection history, stress field and the geological background. An interaction between stress modeling, rock mechanics and source parameter calculation is essential. Once the mechanism of the events is understood, the injection process, the creation of an engineered geothermal reservoir, or the extraction of heat over a prolonged period may need to be modified to reduce or eliminate the occurrence of large events.

- (b) Subtask Leaders. A Subtask Leader (the "Subtask Leader") for each of the foregoing Subtasks shall:
 - (1) Co-ordinate the work performed under that Subtask;

(2) Assist the Operating Agent in preparing the detailed Programme of Work;

(3) Direct technical workshops and provide the Operating Agent with written summaries of workshop results; and

(4) Edit technical reports resulting from the Subtask and organize their publication.

Each Subtask Leader shall be a Participant with a high level of expertise who undertakes substantial research and development in the field of the Subtask. Each Subtask Leader shall be designated by the Operating Agent, with the unanimous approval of the Participants in the Task. Changes in the Subtask Leaders may be agreed to by the Executive Committee with unanimous approval of the Participants in the Task.

3. Results

Results of this Task shall include:

- (a) Analytical reports on environmental impacts and mitigation measures based on work under Subtask A described in sub-paragraph 2(a)(1) above; the reports shall be presented in special issues of international journals and at special sessions at international meetings;
- (*b*) Reports evaluating existing methods for mitigating adverse environmental effects of geothermal developments and recommending improvements, based on work under Subtask B described in sub-paragraph 2(a)(2) above.

4. Time Schedule

This Annex shall commence on the day this Agreement enters into force and shall remain in force for a period of 4 years from that date. Within the limits of the term of the Agreement, this Annex may be extended by two or more Participants, acting in the Executive Committee, and shall thereafter apply only to those Participants.

5. Specific Obligations and Responsibilities of the Participants

In addition to the obligations enumerated in Article 8 of this Agreement:

- (a) Each Participant shall provide the Operating Agent with detailed reports on the results of the work carried out; and
- (b) Each Participant shall participate in the editing and review of draft reports on the Task.

6. Specific Obligations and Responsibilities of the Operating Agent

In addition to the obligations enumerated in Articles 4 and 8 of this Agreement, the Operating Agent shall:

- (a) Prepare and distribute the results described in paragraph 3 above;
- (*b*) Organize workshops, seminars, conferences and other meetings, as provided in the annual Programme of Work for the Task;
- (c) Prepare the detailed Programme of Work for the Task in consultation with the Participant and submit the Programme of Work for approval to the Executive Committee;
- (*d*) Provide, at least annually, reports to the Executive Committee on the progress and the results of the work performed under the Programme of Work;
- (e) Provide to the Executive Committee, within six months after completion of all work under the Task, a final report for its approval and transmittal to the Agency;
- (f) In co-ordination with the Participants, use its best efforts to avoid duplication with activities of other Tasks of this Agreement and other related programmes and projects implemented by or under the auspices of the Agency or by other competent bodies;
- (g) Provide the Participants with the necessary guidelines for the work they carry out, ensuring minimum duplication of effort;
- (*h*) Co-ordinate the efforts of all Participants and ensure the flow of information within the Task;
- (*i*) Perform such additional services and actions as may be decided by the Executive Committee, acting by unanimity.

7. Funding

- (a) Individual Financial Obligations. Each Participant shall bear all the costs it incurs in carrying out the Task activities, including reporting, publication and travel expenses.
- (b) Task-Sharing Requirements. The activities to be carried out by the Participants are specified in the Programme of Work for this Task.

8. Operating Agent

The Institute of Geological & Nuclear Sciences Ltd. (New Zealand) is designated as Operating Agent.

9. **Participants in this Task**

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

European Commission (EC) Iceland Japan Mexico New Zealand United States of America

Annex II

SHALLOW GEOTHERMAL RESOURCES

(Closed in October 2000)

Annex III

ENHANCED GEOTHERMAL SYSTEMS

1. Definition

Enhanced Geothermal Systems (EGS), formerly known as Hot Dry Rock (HDR), geothermal energy technologies have been conceived to extract the natural heat contained in high-temperature, water-poor rocks in the earth's crust. Heat is extracted from rock formations which are either too dry or too impermeable to transmit available water at useful rates. Necessary permeability can be created by hydraulic fracturing or stimulation which involves the high-pressure injection of a fluid into the reservoir to crack and enlarge pre-existing openings. Activities under this Annex may address all recognised EGS geothermal energy technologies as well as any other new and improved technologies which can be used to artificially stimulate a geothermal resource to enable commercial heat extraction.

2. Objective

The objective of this Task is to address the issues necessary for the commercial development of EGS technology.

3. Means

The Participants shall share the co-ordinated work necessary to carry out this Task:

- (a) The objective shall be achieved by the Participants in the following Subtasks:
 - (1) Subtask A: Enhanced Geothermal Systems Economic Models (Successfully completed in 2001)
 - (2) Subtask B: Application of Conventional Geothermal Technology to Enhanced Geothermal Systems

The Participants shall review new and future developments such as horizontal drilling, fracture mapping, and pumping in conventional geothermal energy, and shall determine their application to hot dry rock technology.

(3) Subtask C: Data Acquisition and Processing

The Participants shall collect information necessary for the realization of a commercial EGS energy producing plant at each stage of reservoir

characterization, design and development and of construction and operation of a EGS plant. The relevant results and parameter values will be successively collated into a spreadsheet-like synoptic envelope, ready for use in the decision and design processing or, where necessary, to await further refinement and completion.

(4) Subtask D: Reservoir Evaluation

Geochemistry (tracers and chemical reaction) and modelling techniques for EGS reservoirs created by hydraulic fracturing/stimulation in different geological environments will be reviewed and evaluated. The extent to which reservoir characteristics can be determined by each technique will be discussed.

(5) Subtask E: Field Studies of EGS Reservoir Performance

The objective is to conduct field studies of EGS reservoir development and performance with the intent of understanding reservoir behaviour and the sustainability of energy recovery. This topic covers a broad area and includes subjects such as hydraulic stimulation, fracture mapping, tracer analysis, geophysical methods and geochemistry.

Participants in this subtask will conduct co-operative work at one or more EGS site undergoing development and suitable for field studies. Staff exchanges will occur in support of this Subtask. As needed, equipment will be made available after mutual agreement among the participants. Each participant will be responsible for its own staff and equipment provided for field studies at an EGS site, including salary, insurance, transportation, subsistence and other essential expenses.

- (b) Subtask Leaders. A Subtask Leader (the "Subtask Leader") for each of the foregoing Subtasks shall:
 - (1) Co-ordinate the work performed under that Subtask;
 - (2) Assist the Operating Agent in preparing the detailed Programme of Work;
 - (3) Direct technical workshops and provide the Operating Agent with written summaries of workshop results; and
 - (4) Edit technical reports resulting from the Subtask, and organize their publication.

Each Subtask Leader shall be a Participant with a high level of expertise who undertakes substantial research and development in the field of the Subtask. Each Subtask Leader shall be designated by the Operating Agent with the unanimous approval of all Participants in the Task. Changes in the Subtask Leaders may be made with the unanimous approval of all the Participants in the Task.

4. **Results**

Results of this Task shall include:

- (a) Analytical reports on economic and environmental data of EGS technologies, based on work under Subtask A described in sub-paragraph 3(a)(1) above; the reports shall be presented in special issues of international journals and at special sessions at international meetings;
- (b) A report on conventional geothermal technologies applicable to EGS technologies, based on work under Subtask B described in sub-paragraph 3(a)(2) above;
- (c) An international data base on the stages of development for commercial EGS plants, based on work under Subtask C described in sub-paragraph 3(a)(3) above;
- (*d*) An analytical report on EGS reservoir evaluation technologies, based on work under Subtask D described in sub-paragraph 3(a)(4) above.

5. Time Schedule

This Annex shall commence on the day this Agreement enters into force and shall remain in force for a period of 4 years from that date. Within the limits of the term of the Agreement, this Annex may be extended by two or more Participants, acting in the Executive Committee, and shall thereafter apply only to those Participants.

6. Specific Obligations and Responsibilities of the Participants

In addition to the obligations enumerated in Article 8 of this Agreement:

- (a) Each Participant shall provide the Operating Agent with detailed reports on his country's experience in relevant EGS technologies; and
- (b) Each Participant shall participate in the editing and review of draft reports on the Task.

7. Specific Obligations and Responsibilities of the Operating Agent

In addition to the obligations enumerated in Articles 4 and 8 of this Agreement, the Operating Agent shall:

- (a) Prepare and distribute the results mentioned in paragraph 4 above;
- (*b*) Organize workshops, seminars, conferences and other meetings, as provided in the annual Programme of Work for the Task;
- (c) Prepare the detailed Programme of Work for the Task in consultation with the Participants and submit the Programme of Work for approval to the Executive Committee;
- (*d*) Provide, at least annually, reports to the Executive Committee on the progress and the results of the work performed under the Programme of Work;
- (e) Provide to the Executive Committee, within six months after completion of all work under the Task, a final report for its approval and transmittal to the Agency;
- (f) In co-ordination with the Participants, use its best efforts to avoid duplication with activities of other Tasks of this Agreement and other related programmes and projects implemented by or under the auspices of the Agency or by other competent bodies;
- (g) Provide the Participants with necessary guidelines for the work they carry out, ensuring minimum duplication of effort;
- (*h*) Co-ordinate the efforts of all Participants and ensure the flow of information within the Task;
- (*i*) Perform such additional services and actions as may be decided by the Executive Committee, acting by unanimity.

8. Funding

- (a) *Publications*. The cost of publishing the reports and summary assessments described in paragraph 4 above shall be met by the Operating Agent.
- (b) Individual Financial Obligations. Each Participant shall bear all costs it incurs in carrying out the Task activities, including reporting and travel expenses.
- (c) Task-Sharing Requirements. The level of effort to perform the work specified in this Annex is estimated to be up to 0.5 person-years per year for each Participant.

9. **Operating Agent**

The New Energy and Industrial Technology Development Organization (NEDO) (Japan) is designated as Operating Agent.

10. Participants

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

Australia European Commission (EC) Japan Germany Switzerland United States of America

Annex IV

DEEP GEOTHERMAL RESOURCES

1. Definition

"Deep Geothermal Resources" shall be defined as the geothermal resources which prevail at depths of approximately 3000 metres and deeper.

The utilization of Deep Geothermal Resources could significantly increase geothermal energy generating capacity. However, there are considerable difficulties in exploration, deep drilling and maintenance, because reservoirs are located so deep, and their temperature and pressure are quite high compared with shallower resources.

2. Objective

The objective of this Task is to address the issues necessary for the commercial development of Deep Geothermal Resources.

3. Means

The Participants shall share the co-ordinated work necessary to carry out this Task.

(a) The objectives shall be achieved by the Participants in the following Subtasks:

(1) Subtask A: Exploration Technology and Reservoir Engineering

The objective of this Subtask is to evaluate techniques used to identify deep structures in geothermal systems by exploration methods. Application of these methods in Participants' countries shall be compared in order to assess their efficiency for deep geothermal exploration. This Subtask will involve collaborative research on exploration technologies including geophysical exploration, geological and geochemical exploration, geothermal modelling, and reservoir engineering, including reservoir characterization and reservoir modelling.

(2) Subtask B: Drilling and Logging Technologies

The objectives of this Subtask are to carry out collaborative research on drilling technologies, including review of drilling records of deep geothermal reservoirs, exchange of information on incremental improvements of drilling technologies, and to study ways for achieving breakthroughs in geothermal drilling technology and logging technologies, including review of results of deep and high-temperature geothermal wells, interpretation of logging data, and development of logging tools.

(3) Subtask C: Material Evaluation Programme

The objective of this Subtask is to carry out collaborative research on material evaluation, including studies on corrosion of materials for deep-seated and magma-ambient geothermal systems.

- (b) Subtask Leaders. A Subtask Leader (the "Subtask Leader") of each of the foregoing Subtasks shall:
 - (1) Co-ordinate the work performed under that Subtask;
 - (2) Assist the Operating Agent in preparing the detailed Programme of Work;
 - (3) Direct technical workshops and provide the Operating Agent with written summaries of workshop results; and
 - (4) Edit technical reports resulting from the Subtask and organize their publication.

Each Subtask Leader shall be a Participant with a high level of expertise who undertakes substantial research and development in the field of the Subtask. Each Subtask Leader shall be designated by the Operating Agent, with the unanimous approval of the Participants in the Task. Changes of the Subtask Leaders may be agreed to by the Executive Committee with the unanimous approval of the: Participants in the Task.

4. **Results**

Results of this Task shall include:

- (a) Analytical reports on technical, economical and environmental performance data of Deep Geothermal Resources technologies, based on work under Subtasks A: Band C described in sub-paragraphs 3(a)(1), (2) and (3) above; the reports shall be presented in special issues of international journals and/or at special sessions at international meetings;
- (b) An international database on the status of Deep Geothermal Resources technologies; the reports prepared by the Participants shall be stored on a database system, which can be accessed by the Participants through Internet.

5. Time Schedule

This Annex shall commence on the day this Agreement enters into force and shall remain in force for a period of 4 years from that date. Within the limits of the term of the Agreement, this Annex may be extended by two or more Participants, acting in the Executive Committee, and shall thereafter apply only to those Participants.

6. Specific Obligations and Responsibilities of the Participants

In addition to the obligations enumerated in Article 8 of this Agreement:

- (a) Each Participant shall provide the Operating Agent with detailed reports on its country's experience regarding Deep Geothermal Resources technologies; and
- (b) Each Participant shall participate in the editing and review of draft reports on the Task.

7. Specific Obligations and Responsibilities of the Operating Agent

In addition to the obligations enumerated in Articles 4 and 8 of this Agreement, the Operating Agent shall:

- (a) Prepare and distribute the results mentioned in paragraph 4 above;
- (*b*) Organize workshops, seminars, conferences and other meetings, as provided in the annual Programme of Work for the Task;
- (c) Prepare the detailed Programme of Work for the Task in consultation with the Participants and submit the Programme of Work for approval to the Executive Committee;
- (*d*) Provide, at least annually, reports to the Executive Committee on the progress and the results of the work performed under the Programme of Work;
- (e) Provide to the Executive committee, within six months after completion of all work under the Task, a final report for its approval and transmittal to the Agency;
- (f) In co-ordination with the Participants, use its best efforts to avoid duplication with activities of other Tasks of this Agreement and other related programmes and .projects implemented by or under the auspices of the Agency or by other competent bodies;
- (g) Provide the Participants with the necessary guidelines for the work they carry out, ensuring minimum duplication of effort;

- (*h*) Co-ordinate the efforts of all Participants and ensure the flow of information within the Task;
- (*i*) Perform such additional services and actions as may be decided by the Executive Committee, acting by unanimity.

8. Funding

- (a) *Publications*. The cost of publishing the reports and summary assessments described in paragraph 4 above shall be met by the Operating Agent.
- (b) Individual Financial Obligations. Each Participant shall bear all the costs it incurs in carrying out the Task activities, including reporting and travel expenses.
- (c) Task-Sharing Requirements. The level of effort to perform the work specified in this Annex is estimated at a minimum of 0.5 person-years per year for each Participant.

9. Operating Agent

Forschungszentrum Jülich GmbH, Germany is designated as Operating Agent.

10. Participants

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

Australia Germany Italy Mexico New Zealand United States of America

Annex VII

ADVANCED GEOTHERMAL DRILLING TECHNOLOGY

1. Definition

Drilling is an essential and expensive part of geothermal exploration, development, and utilization. The cost of drilling, logging, and completing geothermal wells is high due to high temperatures and hard, fractured formations. The consequences of reducing cost are often impressive, because drilling and well completion can account for more than half of the capital cost for a geothermal power project.

Geothermal drilling cost reduction can take many forms, e.g., faster drilling rates, increased bit or tool life, less trouble (twist-offs, stuck pipe, etc.), higher per-well production through multi-laterals, and others. The Advanced Geothermal Drilling Technology Task will address all aspects of geothermal well construction, including developing a detailed understanding of worldwide geothermal drilling costs, understanding geothermal drilling practices and how they vary across the globe, and development of improved drilling technology.

2. Objectives

The objectives of the Advanced Geothermal Drilling Task are:

(*a*) Quantitatively understand geothermal drilling costs from around the world and identify ways to reduce those costs, while maintaining or enhancing productivity.

(*b*) Identify and develop new and improved technologies for significantly reducing the cost of geothermal well construction to lower the cost of electricity and/or heat produced with geothermal resources.

(c) Inform the international geothermal community about these drilling technologies.

(*d*) Provide a vehicle for international co-operation, field tests, etc. toward the development and demonstration of improved geothermal drilling technology.

3. Means

The Participants shall share the co-ordinated work necessary to carry out this Task:

- (a) The proposed objectives of Annex VII will be achieved by the Participants in the following Subtasks:
 - (1) Subtask A: Compile Geothermal Well Drilling Cost Information

- The participants shall compile actual costs associated with the development, construction and operation of geothermal wells in their countries and elsewhere. This information will be maintained in a single database for use by all participants. Data may include, but is not limited to R&D cost, project cost, operation and maintenance cost, and overall cost of energy. It will include information on wells for electricity and direct-use applications (including geothermal heat pumps), and include information from 1990 to date .
- (2) Subtask B: Geothermal Drilling Best Practices

The Participants shall identify and catalogue the technologies that have been most successful for drilling, logging and completing geothermal wells.Practices from the various Participants' countries will be compared and contrasted. This work will be published as a <u>Handbook on</u> <u>Geothermal Drilling: Best Practices</u> for use by the Participants. The study will include, but not be limited to: design criteria for the drilling and completion programs, drilling practices for least_cost, problem diagnosis and remediation during slimhole drilling, trouble avoidance, well testing, geophysical logging, and wellbore preservation.

(3) Subtask C: Advanced Drilling Collaboration

The Participants will endeavor to stay abreast of drilling technology development and application activities in their respective countries. Meetings to share information will be conducted at least twice annually. The meetings will be used to identify activities and projects for collaboration, and then collaboration plans will be developed. For example, it is anticipated that Participants will identify opportunities to field test in one country a technology/system that is being developed in another participant's country.

- (b) **Subtask Leaders**. The Subtask Leader for each of the Subtasks listed above shall:
 - (1) Co-ordinate the work performed under that Subtask;
 - (2) Assist the Operating Agent in preparing the detailed Program of Work;
 - (3) Direct technical workshops and provide the Operating Agent with written summaries of workshop results; and
 - (4) Edit technical reports resulting from the Subtask, and organize their publication.

Each Subtask Leader shall be designated by the Operating Agent with the unanimous approval of all Participants in the Task. Changes in the Subtask

Leaders may be made with the unanimous approval of all the Participants in the Task.

4. Results

The primary results of the Advanced Drilling Technologies Annex will be the reduction in well construction costs and documentation of the cost savings to the international geothermal community. Results of this Task shall include:

(*a*) An international database on geothermal drilling costs by year for each of the Participant countries. The report of the database shall describe the number of wells drilled, their locations, their properties, and their costs. The database shall contain as much detail on the costs of each drilling activity (drilling, cementing, casing, lost circulation, etc.) in a consistent format for each well as is reasonable.

(*b*) An international report on the state-of-the art in geothermal drilling describing methods used, steering techniques, drilling methods, bits, common problems, and identification of currently successful technologies. This report will also compare and contrast different practices used in the participating countries. It is possible that the task leaders will choose to issue separate reports for drilling practices in the electricity generation and direct use categories.

(c) Participant reports on collaboration projects identified and carried out under Subtask 3.

5. Time Schedule

The Annex shall remain in force until 31 March 2009. Within the limits of the terms of the Agreement, this Task may be extended by two or more Participants, acting in the Executive Committee, and shall thereafter apply only to those Participants.

6. Specific Obligations and Responsibilities of the Participants

In addition to the obligations enumerated in Article 8 of this Agreement:

(*a*) Each Participant shall provide the Operating Agent with detailed reports on his country's experience in relevant drilling technologies. The Participant may also provide reports on experience in non-participating countries if they are available.

(b) Each Participant shall participate in all three subtasks.

(c) Each Participant shall participate in the editing and review of draft reports on the Task.

7. Specific Obligations and Responsibilities of the Operating Agent

In addition to the obligations enumerated in Articles 4 and 8 of this Agreement, the Operating Agent shall:

(a) Prepare and distribute the results mentioned in paragraph 4 above;

(b) Organize workshops, seminars, conferences and other meetings, as provided in the annual Program of Work for the Task;

(c) Prepare the detailed Program of Work for the Task in consultation with the Participants and submit the Program of Work approval to the Executive Committee;

(*d*) Provide, at least annually, reports to the Executive Committee on the progress and the results of the work performed under the Program of Work;

(e) Provide to the Executive Committee, within six months after completion of all work under the Task, a final report for its approval and transmittal to the Agency;

(f) In co-ordination with the Participants, use its best efforts to avoid duplication with activities of other Tasks of this Agreement and other related programs and projects implemented by or under the auspices of the Agency or by other competent bodies;

(g) Provide the Participants with necessary guidelines for the work they carry out, ensuring minimum duplication of effort;

(h) Co-ordinate the efforts of all Participants and ensure the flow of information within the Task; and

(*i*) Perform such additional service and actions as may be decided by the Executive Committee, acting by unanimity.

8. Funding

The costs of the Subtasks in the collaborative research to be performed as the Advanced Geothermal Drilling Task under Annex VII will be borne by the Contracting Parties in the Task Sharing mode, as indicated in the Implementing Agreement. Each Contracting Party shall bear the costs it incurs in carrying out Program activities, 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 Subtasks, unless provision is made for such costs to be reimbursed from common funds.

9. Operating Agent

The Operating Agent is Sandia National Laboratories, acting for the U.S. Department of Energy.

10. Information and Intellectual Property

The publication, distribution, handling, sharing, protection and ownership of information and intellectual property provided under or arising from the Program, shall be determined by the Executive Committee, acting by unanimity, in conformity with this Agreement and the laws of the countries of the Contracting Parties and Operating Agent. The Contracting Parties shall favor the widest possible dissemination of information provided to, exchanged or arising under the Program, subject to the need to protect proprietary, including confidential, information.

The Operating Agent shall encourage the governments of all countries with Contracting Parties 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.

11. Participants

The Contracting Parties acting as Participants in this Task are the following:

European Commission (EC) Iceland Japan Mexico New Zealand United States of America

Annex VIII

DIRECT USE OF GEOTHERMAL RESOURCES

The objectives of this Annex will be achieved through work in four subtasks. The Subtask Leaders remain to be appointed.

1. Subtask A- Resource Characterization

The aim of this Subtask is to define the available resources in the various participating countries.

2. Subtask B- Cost and Performance Database

This Subtask focuses on collecting, analyzing and disseminating the characteristic cost and performance data for installations in participating countries, with emphasis on establishing a baseline and then validating the improvements from innovative components and better designs.

3. Subtask C- Barrier and Opportunity Identification

Based on subtasks A and B, this Subtask will define the barriers which must be overcome to gain widespread use of geothermal heat for various applications. The research activities necessary to take advantage of these opportunities will also be defined and initiated.

4. Subtask D- Equipment Performance Validation

The work in this Subtask will define and test critical and innovative equipment; such as submersible and line shaft pumps, compact heat exchangers, down-hole heat exchangers, non-metallic piping, heat pumps and other equipment to characterize performance for various applications and for various geothermal brines. The testing can be at multiple sites or can be round robin.

5. Funding

The collaborative direct use technology research to be carried out under this Annex will involve both cost-sharing and task-sharing. A common fund will be established to cover the special duties of the Operating Agent, including the cost of publishing the reports and summary assessments and the cost of maintaining and distributing the cost database. The costs associated with collecting the information in the database shall be borne by the respective participants. In addition, each participant shall bear all costs it incurs in carrying out the Annex activities, including reporting and travel expenses. The level of effort to perform the work specified in this Annex is estimated to be no more than one-person year per year for each participant.

6. Results

The primary results of Annex VIII will be improvements in systems and equipment, reduction in cost of delivered heat and an increase in the number of direct use applications. Further, enhanced co-operation between the countries and increased exchange of technical and scientific information within the field of direct use of geothermal energy.

Specifically, the results of this Annex shall include:

(*a*) Development of an international database on direct use applications by each of the participating countries. The database will be based on standardized instruments and reporting techniques.

(b) Reports on state-of-the-art in direct use of geothermal energy, including areas needing improvement.

(c) Co-operative research to accomplish the needed improvements.

(*d*) Participant reports on the status of research and development in new and improved technology that shall be presented in appropriate journals and meetings.

7. Operating Agent

The Operating Agent is The Federation of Icelandic Energy and Waterworks, Reykjavik, Iceland.

8. Participants

The Contracting Parties acting as Participants in this Task are the following:

Iceland Japan New Zealand Republic of Korea Switzerland United States of America

Exhibit A

IEA FRAMEWORK FOR INTERNATIONAL ENERGY TECHNOLOGY CO-OPERATION

I. <u>General Principles</u>

Article 1

Mandate

- 1.1.1 In fulfilment of Chapter VII of the Agreement on an International Energy Program and in light of the Shared Goals of the IEA, the IEA operates Implementing Agreements to enable IEA Member countries to carry out programmes and projects on energy technology research, development and deployment.
- 1.2.1 An Implementing Agreement is a contractual relationship established by at least two IEA Member countries, and approved by the Governing Board, for the purpose set out in Article 1.1.
- 1.2.2 Participants in an Implementing Agreement shall contribute as fully as possible to the achievement of its objectives and shall endeavour to secure, through public and private support, the necessary scientific, technical and financial resources for the programmes and projects carried out under such an Implementing Agreement.
- 1.2.3 Each Implementing Agreement shall have an Executive Committee composed of representatives of all participants.

Article 2

Nature of Implementing Agreements

- 2.1 The activities of an Implementing Agreement may include, *inter alia*:
 - (a) co-ordination and planning of specific energy technology research, development and deployment studies, works or experiments carried out at a national or international level, with subsequent exchange, joint evaluation and pooling of the scientific and technical results acquired through such activities;
 - (b) participation in the operation of special research or pilot facilities and equipment provided by a participant, or the joint design, construction and operation of such facilities and equipment;
 - (c) exchange of information on (i) national programmes and policies, (ii) scientific and technological developments and (iii) energy legislation, regulations and practices;
 - (d) exchanges of scientists, technicians or other experts;
 - (e) joint development of energy related technologies; and
 - (f) any other energy technology related activity.

- 2.2 Participation in an Implementing Agreement shall be based on equitable sharing of obligations, contributions, rights and benefits. Participants in an Implementing Agreement shall undertake to make constructive contributions, whether technical, financial or otherwise, as may be agreed by the Executive Committee.
- 2.3 Some or all of the participants in an Implementing Agreement may choose to execute specific projects and/or programmes through Annexes to the Implementing Agreement.

II. <u>Rules Applicable to IEA Implementing Agreements</u>

Article 3

Participation, Admission and Withdrawal

- 3.1 An Implementing Agreement can be established by two or more IEA Member countries subject to approval of the Committee on Energy Research and Technology (CERT) and of the Governing Board. There are two possible categories of participants in Implementing Agreements: Contracting Parties and Sponsors.
- 3.2 <u>Contracting Parties</u> may be
 - (a) the governments of both OECD member or OECD non-member countries;
 - (b) the European Communities;
 - (c) international organisations in which the governments of OECD member countries and/or OECD non-member countries participate; and
 - (d) any national agency, public organisation, private corporation or other entity designated by the government of an OECD member country or an OECD non-member country, or by the European Communities.
 - 3.2.1 Participation in any Implementing Agreement for OECD non-member countries or for international organisations requires prior approval by the CERT. However, should the CERT consider a first time application by an OECD non-member country or an international organisation to be sensitive, it may refer the decision to the Governing Board as it deems appropriate.
 - 3.2.2 Prior to CERT approval of participation of OECD non-member countries or international organisations in any Implementing Agreement, the Executive Committee shall:
 - (a) have voted in favour of the applicant to join the Implementing Agreement and provide evidence of the same to the CERT;
 - (b) provide the CERT with a copy of the terms and conditions of the applicant's participation in the Implementing Agreement; and
 - (c) provide the CERT with a letter from the applicant expressing the applicant's desire to join the Implementing Agreement and specifying which Annexes it wishes to join;

its acceptance of the terms and conditions of the Implementing Agreement; the name of its designated entity if it is not the applicant itself; and the name of the entity that will sign the Implementing Agreement.

- 3.2.3 The terms and conditions for the admission, participation and withdrawal of Contracting Parties, including their rights and obligations, in Implementing Agreements and their Annexes, if any, shall be established by the Executive Committee of each Implementing Agreement.
- 3.2.4 Notwithstanding Article 3.2.3, no Contracting Party from an OECD non-member country or international organisation shall have greater rights or benefits than Contracting Parties from OECD member countries.

3.3 <u>Sponsors</u> may be

- (a) entities of OECD member countries or OECD non-member countries who are not designated by the governments of their respective countries to participate in a particular Implementing Agreement; and
- (b) non-intergovernmental international entities in which one or more entities of OECD member countries or OECD non-member countries participate.
- 3.3.1 Participation of Sponsors in Implementing Agreements requires prior approval by the CERT.
- 3.3.2 Prior to CERT approval of Sponsor participation in any Implementing Agreement, the Executive Committee shall:
 - (a) have voted in favour of the applicant to join the Implementing Agreement and provide evidence of the same to the CERT;
 - (b) provide the CERT with a copy of the terms and conditions of the applicant's participation in the Implementing Agreement; and
 - (c) provide the CERT with a letter from the applicant expressing the applicant's desire to join the Implementing Agreement and specifying which Annexes it wishes to join; its acceptance of the terms and conditions of the Implementing Agreement; and the name of the entity that will sign the Implementing Agreement.
- 3.3.3 The terms and conditions for the admission, participation and withdrawal of Sponsors, including rights and obligations, in Implementing Agreements and their Annexes, if any, shall be established by the Executive Committee of each Implementing Agreement.
- 3.3.4 Notwithstanding Article 3.3.3, no Sponsor shall have greater rights or benefits than Contracting Parties from OECD non-member countries and no Sponsor shall be designated Chair or Vice-chair of an Implementing Agreement.
- 3.3.5 The CERT shall have the right to not approve participation of a Sponsor if the terms and conditions of such participation do not comply with this Framework, any Decisions of the CERT or the Governing Board and the Shared Goals of the IEA.

Article 4

Specific Provisions

- 4.1 Unless the CERT otherwise agrees, based on exceptional circumstance and sufficient justification, Implementing Agreements shall be for an initial term of up to, but no more than, five years.
- 4.2 An Implementing Agreement may be extended for such additional periods as may be determined by its Executive Committee, subject to approval of the CERT. Any single extension period shall not be greater than five years unless the CERT otherwise decides, based on exceptional circumstances and sufficient justification.
- 4.3 Notwithstanding Paragraph 4.2, should the duration of the programme of work of an Annex exceed the term of the Implementing Agreement to which it relates, the CERT shall not unreasonably withhold approval to extend the Implementing Agreement for such additional period to permit the conclusion of the work then being conducted under the Annex.
- 4.4 Either the Contracting Parties or the Executive Committee of each Implementing Agreement shall:
 - 4.4.1 approve the programme activities and the annual programme of work and budget for the relevant Implementing Agreement;
 - 4.4.2 establish the terms of the contribution for scientific and technical information, knowhow and studies, manpower, capital investment or other forms of financing to be provided by each participant in the Implementing Agreement;
 - 4.4.3 establish the necessary provisions on information and intellectual property and ensure the protection of IEA copyrights, logos and other intellectual property rights as established by the IEA;
 - 4.4.4 assign the responsibility for the operational management of the programme or project to an entity accountable to the Executive Committee of the relevant Implementing Agreement;
 - 4.4.5 establish the initial term of the Implementing Agreement and its Annexes;
 - 4.4.6 approve amendments to the text of the Implementing Agreement and Annexes; and
 - 4.4.7 invite a representative of the IEA Secretariat to its Executive Committee meetings in an advisory capacity and, sufficiently in advance of the meeting, provide the Secretariat with all documentation made available to the Executive Committee members for purposes of the meeting.

Article 5

Copyright

- 5.1 Notwithstanding the use of the IEA name in the title of Implementing Agreements, the Implementing Agreements, the Executive Committee or the entity responsible for the operational management of the programme or project may use the name, acronym and emblem of the IEA as notified to the World Intellectual Property Organisation (WIPO) only upon prior written authorisation of the IEA and solely for the purposes of executing the Implementing Agreements.
- 5.2 The IEA shall retain the copyright to all IEA deliverables and published or unpublished IEA material. Implementing Agreements wishing to use, copy or print such IEA deliverables and/or material shall submit a prior written request of authorisation to the IEA.

Article 6

Reports to the IEA

- 6.1 Each Executive Committee shall submit to the IEA:
 - 6.1.1 as soon as such events occur, notifications of any admissions and withdrawals of Contracting Parties and Sponsors, any changes in the names or status of Contracting Parties or Sponsors, any changes in the Members of the Executive Committee or of the entity responsible for the operational management of the programme or project, or any amendments to an Implementing Agreement and Annex thereto;
 - 6.1.2 annual reports on the progress of programmes and projects of the Implementing Agreement and any Annex;
 - 6.1.3 notwithstanding Article 6.1.1, in addition to and with the Annual Report, annually provide the IEA with the following information:
 - (a) the names and contact details of all current Contracting Parties and Sponsors;
 - (b) the names and contact details of all Contracting Parties and Sponsors who may have withdrawn from the Implementing Agreement or any Annex in the year covered by the Annual Report;
 - (c) the names and contact details of all new Contracting Parties and Sponsors who may have joined the Implementing Agreement or any Annex in the year covered by the Annual Report;
 - (d) any changes in the names or status of any Contracting Parties or Sponsors;
 - (e) the names and contact details of the Executive Committee members and the entity responsible for the operational management of the programme or project; and
 - (f) any amendments to the text of an Implementing Agreement and any Annex thereto.

- 6.1.4 End of Term Reports, which shall include all the information and documentation required by Decisions of the CERT then in effect and relating thereto; and
- 6.1.5 At the request of the IEA, any other non-proprietary information as may be requested by the IEA in connection with the IEA's mandate.

Article 7

Effective Date

This Framework shall take effect and become binding on all participants in the Implementing Agreements and Annexes from the date of its approval as a decision by the Governing Board.