

MEMORANDUM OF UNDERSTANDING
BETWEEN
THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF AMERICA
AND
THE MINISTRY OF MINES AND ENERGY
OF THE REPUBLIC OF GHANA
ON COOPERATION IN
ENERGY POLICY, SCIENCE AND TECHNOLOGY,
AND DEVELOPMENT

The Department of Energy of the United States of America (DOE) and the Ministry of Mines and Energy of the Republic of Ghana (hereinafter referred to as the "Parties"):

Having a mutual interest in increasing the effectiveness of their respective countries' programs of energy policy, science and technology, and development, and in pursuing related cooperation between their two countries;

Believing that increased international cooperation in energy policy, science and technology, and consultations on development will promote the accomplishment of mutually beneficial objectives;

Desiring to establish closer relationships between scientific, technological, commercial and industrial organizations within the United States and the Republic of Ghana;

Recognizing that energy security and the quality of life can be enhanced through the effective and environmentally-sound utilization of energy sources; and

Noting that cooperation to support such utilization of energy sources would promote increased economic interaction, facilitate technology transfer, accelerate the commercialization of energy systems and products, and expand opportunities for international trade between the United States of America and the Republic of Ghana;

Have agreed as follows:

ARTICLE I
OBJECTIVE

The objective of this Memorandum of Understanding is to facilitate and establish cooperative activities by the Parties. Cooperation between the Parties shall be conducted on the basis of mutual benefit, equality, and reciprocity .

ARTICLE II
AREAS OF COOPERATION

The areas of cooperation under this Memorandum of Understanding may include the following:

1. Energy efficiency and renewable energy;
2. Fossil energy, including natural gas, liquified petroleum gas, and clean coal technologies;
3. Environmental management, including utilization of energy technologies, particularly cost-effective technologies aimed at reducing emissions of greenhouse gases and minimizing environmental impacts;
4. Independent power project development; and
5. Such other areas as the Parties may agree.

ARTICLE III
FORMS OF COOPERATION

The forms of cooperation in the areas specified in Article II of this Memorandum of Understanding may include the following:

- A. Exchange of scientists, engineers and other specialists for participation in agreed research, development, analysis, design, and experimental activities conducted in research centers, laboratories, and other facilities and enterprises of the Parties;
- B. Organizing and participating in seminars on specific mutually agreed topics;
- C. Promoting the development, demonstration, and utilization of energy efficiency and renewable energy technologies that are economically competitive and environmentally acceptable;
- D. Sharing relevant information and practical experience;

- E. Assisting in capacity building through training, joint government-industry activities and faculty and student exchanges and tours, and development and transfer of skills and technology to support human resources development, policy development and institutional infrastructure;
- F. Joint projects in which the Parties agree to share work and/or costs; and
- G. Such other forms of cooperation as the Parties may agree.

ARTICLE IV MANAGEMENT

- A. Each Party shall name a Principal Coordinator to supervise activities under this Memorandum of Understanding. The Principal Coordinators shall consult annually and may meet periodically to evaluate the status of cooperation under this Memorandum of Understanding. Evaluations will include a review of accomplishments, impediments, and effectiveness of activities under this Memorandum of Understanding. The Principal Coordinators also will consider future program opportunities with a view to maximizing the mutual benefits of cooperation.
- B. With the prior approval of the Parties, the Principal Coordinators may appoint Technical Coordinators to manage specific activities initiated under this Memorandum of Understanding and to establish and maintain working contacts at the staff level.

ARTICLE V IMPLEMENTING ARRANGEMENTS

When the Parties agree to undertake any form of cooperation under this Memorandum of Understanding, the Parties shall conclude an Implementing Arrangement, which shall be annexed to, and subject to the terms of this Memorandum of Understanding. Each Implementing Arrangement shall include detailed provisions for conducting and managing the cooperation, and shall cover such matters as technical scope, total costs, cost-sharing between the Parties, project schedule, exchange of equipment, and any special provisions necessary for treatment of business-confidential information, intellectual property, and information disclosure specific to the project. Activities under Implementing Arrangements may involve, as appropriate, laboratories or contractors of the Parties.

ARTICLE VI
EXCHANGE OF PERSONNEL

The following provisions shall apply to exchanges of personnel under this Memorandum of Understanding:

- A. Each Party shall ensure that qualified personnel are selected for assignments to the other Party;
- B. Each Party shall be responsible for the payment of salaries, travel, and living expenses of its personnel while on assignment to the host or receiving party, unless otherwise agreed;
- C. The receiving Party shall arrange accommodations for the assigned personnel of the sending Party or its contractors (and their families) on a mutually agreeable, reciprocal basis;
- D. The receiving Party shall provide all necessary assistance to the assigned personnel and their families regarding administrative formalities (e.g., acquiring visas); and
- E. Each Party shall ensure that its staff or the staff of its contractors shall conform to the general rules of work and safety regulations in force at the host establishment.

ARTICLE VII
EXCHANGE OF EQUIPMENT

The Department of Energy may provide equipment, including laboratory equipment and computers, to the Ministry of Mines and Energy of the Republic of Ghana. Such use of U.S. Government-owned property shall be subject to a written agreement between the Parties. The Department of Energy shall retain title to equipment, computers, and necessary parts provided under this Memorandum of Understanding.

ARTICLE VIII
PARTICIPATION

The Parties may invite additional public or private organizations in the country of either Party to participate in activities under this Memorandum of Understanding at their own expense and in accordance with the terms and conditions specified by the Parties.

ARTICLE IX
INTELLECTUAL PROPERTY AND INFORMATION

- A. Annex A sets forth provisions for the protection and distribution of intellectual property created or furnished in the course of activities under this Memorandum of Understanding, and for the protection of business-confidential information. Annex A constitutes an integral part of this Memorandum of Understanding.
- B. Each Party represents that any scientific and technical information provided to the other Party under this Memorandum of Understanding shall be accurate to the best of its knowledge and belief; however, neither Party warrants the suitability of such information for any particular use or application by the receiving Party or by any third party.

ARTICLE X
SECURITY OBLIGATIONS

Both Parties agree that no information or equipment requiring protection in the interests of national defense or foreign relations of either Party and classified in accordance with the applicable national laws and regulations shall be provided under this Memorandum of Understanding. In the event that information or equipment which is known or believed to require such protection is identified in the course of cooperative activities undertaken pursuant to this Memorandum of Understanding, it shall be brought immediately to the attention of the appropriate officials and the Parties shall consult to identify appropriate security measures to be agreed upon by the Parties in writing and applied to this information and equipment and shall, if appropriate, amend this Memorandum of Understanding to incorporate such measures.

ARTICLE XI
GENERAL PROVISIONS

- A. Unless otherwise specifically agreed in writing, all costs resulting from cooperation under this Memorandum of Understanding shall be borne by the Party that incurs them.
- B. Each Party shall conduct the activities provided for in this Memorandum of Understanding subject to its applicable laws and regulations, and shall provide resources subject to the availability of appropriated funds and personnel.

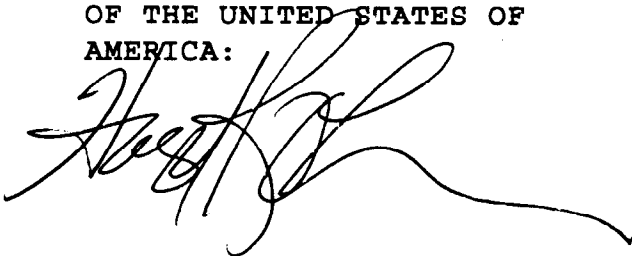
- C. All questions or interpretation or implementation relating to this Memorandum of Understanding arising during its term shall be resolved by agreement of the Parties.

ARTICLE XII
DURATION, AMENDMENT, AND TERMINATION

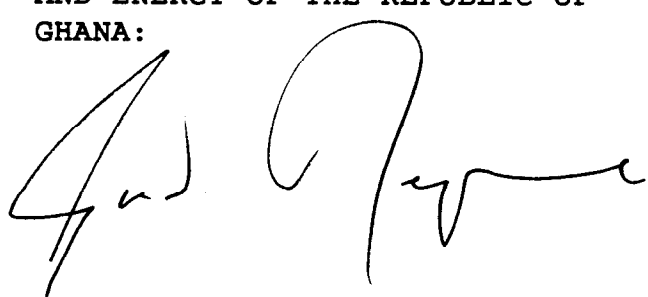
- A. This Memorandum of Understanding shall enter into force upon signature and shall remain in force for five (5) years.
- B. This Memorandum of Understanding may be amended or extended by the mutual written consent of the Parties.
- C. This Memorandum of Understanding may be terminated at any time by either Party upon six (6) months prior written notice to the other Party, or at any time by the mutual consent of the Parties. Such expiration or termination shall not prejudice any rights and interests which have accrued under this Memorandum of Understanding to either Party up to the date of expiration or termination.
- D. Joint activities not completed at the time of expiration or termination of this Memorandum of Understanding may be continued upon the agreement of the Parties until their completion under the terms of this Memorandum of Understanding.

Signed, in duplicate, at Washington, D.C., United States of America, this 1st day of October, 1996.

THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF
AMERICA:



FOR THE MINISTRY OF MINES
AND ENERGY OF THE REPUBLIC OF
GHANA:



ANNEX A
INTELLECTUAL PROPERTY RIGHTS

Pursuant to Article IX of this Memorandum of Understanding:

The Parties shall ensure adequate and effective protection of intellectual property created or furnished under this Memorandum of Understanding and relevant implementing arrangements. The Parties agree to notify one another in a timely fashion of any inventions or copyrighted works arising under this Memorandum of Understanding and to seek protection for such intellectual property in a timely fashion. Rights to such intellectual property shall be allocated as provided in this Annex.

I. SCOPE

- A. This Annex is applicable to all cooperative activities undertaken pursuant to this Memorandum of Understanding, except as otherwise specifically agreed by the Parties or their designees.
- B. For the purpose of this Memorandum of Understanding, "intellectual property" shall have the meaning found in Article 2 of the Convention Establishing the World Intellectual Property Organization, done at Stockholm, July 14, 1967.
- C. This Annex addresses the allocation of rights and interests between the Parties. Each Party shall ensure that the other Party can obtain the rights to intellectual property allocated in accordance with this Annex, by obtaining those rights from its own participants through contracts or other legal means, if necessary. This Annex does not otherwise alter or prejudice the allocation between a Party and its nationals, which shall be determined by that Party's laws and practices.
- D. Disputes concerning intellectual property arising under this Memorandum of Understanding should be resolved through discussions between the concerned participating institutions, or, if necessary, the Parties or their designees. Upon mutual agreement of the Parties, a dispute shall be submitted to an arbitral tribunal for binding arbitration in accordance with the applicable rules of international law. Unless the Parties or their designees agree otherwise in writing, the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL) shall govern.

- E. Termination or expiration of this Memorandum of Understanding shall not affect rights or obligations under this Annex.

II. ALLOCATION OF RIGHTS

- A. Each Party shall be entitled to a non-exclusive, irrevocable, royalty-free license in all countries to translate, reproduce, and publicly distribute scientific and technical journal articles, reports, and books directly arising from cooperation under this Memorandum of Understanding. All publicly distributed copies of a copyrighted work prepared under this provision shall indicate the names of the authors of the work unless an author explicitly declines to be named.
- B. Rights to all forms of intellectual property, other than those rights described in paragraph II.A above, shall be allocated as follows:
1. Visiting researcher, for example, scientists visiting primarily in furtherance of their education, shall receive intellectual property rights under the policies of the host institution. In addition, each visiting researcher named as an inventor shall be entitled national treatment with regard to awards, bonuses, benefits, or any other rewards, in accordance with the policies of the host institution.
 - 2a. For intellectual property created during joint research, for example, when the Parties, participating institutions, or participating personnel have agreed in advance on the scope of work, each Party shall be entitled to obtain all rights and interests in its own country. Rights and interests in third countries will be determined in implementing arrangements. If research is not designated as "joint research" in the relevant implementing arrangement, rights to intellectual property arising from the research will be allocated in accordance with paragraph II.B. (1) above. In addition, each person named as an inventor shall be entitled to national treatment with regard to awards, bonuses, benefits, or other rewards in accordance with the policies of the participating institutions.

- b. Notwithstanding paragraph II.B. (2) (a) above, if a type of intellectual property is available under the laws of one Party but not the other Party, the Party whose laws provide for this type of protection shall be entitled to all rights and interests worldwide. Persons named as inventors or authors of the property shall nonetheless be entitled to awards, bonuses, benefits, or any other rewards in accordance with the policies of the participating institution of the Party obtaining rights.

III. BUSINESS-CONFIDENTIAL INFORMATION

In the event that information identified in a timely fashion as business-confidential is furnished or created under this Memorandum of Understanding , each Party and its participants shall protect such information in accordance with applicable laws, regulations, and administrative practices. Information may be identified as "business-confidential" if a person having the information may derive an economic benefit from it or may obtain a competitive advantage over those who do not have it, the information is not generally known or publicly available from other sources, and the owner has not previously made the information available without imposing in a timely manner an obligation to keep it confidential.