

MEMORANDUM OF UNDERSTANDING
BETWEEN
DEPARTMENT OF ENERGY, MINES AND RESOURCES OF CANADA
AND THE
THE DEPARTMENT OF ENERGY OF THE UNITED STATES OF AMERICA
ON COLLABORATION IN
ENERGY RESEARCH AND DEVELOPMENT

WHEREAS:

The Department of Energy of the United States of America (DOE) and the Department of Energy, Mines and Resources of Canada (DEMR) (hereinafter referred to as the "Parties") are jointly interested in increasing the effectiveness of their programs of energy research and development (hereinafter referred to as "R&D") and in expanding collaboration between their two countries in this area;

The International Energy Agency (IEA), of which both Parties are members, has, at the July 9, 1985 IEA Governing Board Meeting at Ministerial Level, emphasized the importance of increased international collaboration in R&D as well as in consultations in early stages of the research and development activities as a means of increasing the effectiveness of members' efforts, thus contributing to the improvement of energy security;

The Parties subscribe to the concept of joint planning of R&D programs as a vital element of enhanced R&D collaboration and subscribe to the early sharing of R&D program plans to facilitate the equitable allocation of research tasks within joint programs or projects; and

The Parties believe that initiatives such as sharing tasks, facilities, scientific and technical information, costs and human resources could result in accomplishment of their objectives more efficiently, including achieving greater results at existing levels of expenditure. They recognize that expanded early joint planning could ultimately lead to collaboration in the construction and use of major facilities for R&D. In this way, the activities of one Party would be interdependent upon the activities of the other Party;

The Parties, therefore, have reached the following Understanding:

ARTICLE 1

OBJECTIVES

The objective of this Memorandum of Understanding (hereinafter referred to as the "MOU") is to establish a framework for collaboration between the Parties in energy R&D activities. Such collaboration will be on the basis of mutual benefit, equality and reciprocity.

ARTICLE 2

SCOPE

Collaboration under this MOU may include, but is not limited to, the following fields:

- a) energy conservation and energy efficiency;
- b) renewable energy technologies;
- c) alternative transportation fuels;
- d) fossil energy; and
- e) environmental protection and health research relating to energy technologies

Other collaborative fields may be added by written agreement of the Parties.

ARTICLE 3

FORMS OF COLLABORATIVE ACTIVITIES

Collaboration in accordance with this MOU may include, but is not limited to, the following forms:

1. Exchange of information on program plans.
2. Early consultations by senior policy and program officials to permit joint program planning of R&D activities.
3. Exchange of scientists, engineers and other specialists for participation in agreed research, development, analysis, design and experimental activities conducted in research centers, laboratories, engineering offices and other facilities and enterprises of each of the Parties or its contractors for agreed periods.

4. Exchange, on a current basis, of scientific and technical information, and results and methods of research and development.
5. Organization of seminars and other meetings on specific agreed topics. Such seminars will normally be held alternately in Canada and the United States for each topic.
6. Joint projects in which the Parties agree to share the work and/or costs.
7. Other specific forms of collaboration may be added by mutual written agreement by the Parties.

ARTICLE 4

IMPLEMENTING ARRANGEMENTS

When the Parties agree to undertake a form of cooperation set forth in Article 3, the Parties will execute an Implementing Arrangement. Each such Implementing Arrangement will include all detailed provisions for carrying out the specified forms of cooperation and will cover such matters as technical scope, intellectual property, management, total costs, cost sharing and schedule.

ARTICLE 5

MANAGEMENT

1. To supervise the execution of this MOU, each Party will designate one person to serve as Lead Coordinator. Each Lead Coordinator will appoint a Technical Coordinator for each of the technical fields or groups of related technical fields as may be necessary.
2. The Lead Coordinators will normally meet each year, alternately in Canada and the United States of America. At their meetings, the Lead Coordinators will evaluate the status of cooperation under this MOU. This evaluation will include a review of the past year's activities and accomplishments and of the activities planned for the coming year within each of the technical fields or groups of related technical fields listed in Article 2, an assessment of the balances of exchanges within each of the technical fields or groups of related technical fields listed in Article 2, and consideration of measures required to correct any imbalances. In addition, the Lead Coordinators will consider and act on any major new proposals for collaboration. Technical Coordinators may at the discretion of the Lead Coordinators participate in these annual meetings.

ARTICLE 6

INTELLECTUAL PROPERTY

The Parties recognize the need to agree upon provisions concerning intellectual property for each Implementing Arrangement entered into in accordance with Article 4. Accordingly, specific provisions relating to these concerns will be set forth in each such Implementing Arrangement.

ARTICLE 7

GENERAL PROVISIONS

1. Collaboration under this MOU will be in accordance with the laws of the respective countries and the regulations of the respective Parties. All questions related to the MOU arising during its term will be settled by the Parties by mutual agreement.
2. Nothing in this MOU is intended to affect arrangements for cooperation or collaboration between the Parties or any other arrangements of the Parties in existence on the date this MOU comes into force.

ARTICLE 8

FUNDING

Except when otherwise agreed in writing, all costs resulting from cooperation under this MOU will be borne by the Party that incurs them. It is understood that the ability of each Party to carry out its obligations under this MOU is subject to the availability of appropriated funds.

ARTICLE 9

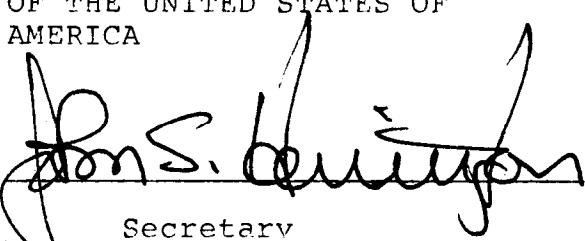
ENTRY INTO FORCE AND TERMINATION

1. This MOU will enter into force upon signature by both Parties and remain in force for ten (10) years. This MOU may be amended or extended by mutual written agreement. This MOU may be terminated at any time by either Party upon six (6) months written notice to the other Party.

2. This MOU is not intended to create legally binding obligations between the Parties.

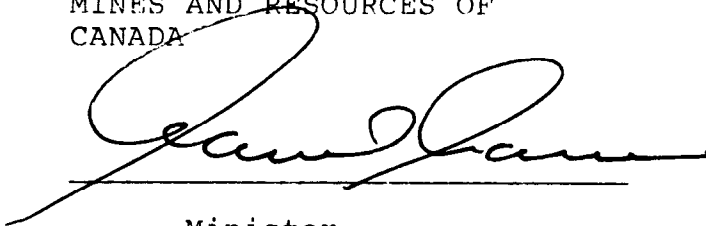
Done in duplicate at Washington, D.C., this 4th day of December, 1986, in the English and French languages, each text being equally authentic.

FOR THE DEPARTMENT OF ENERGY
OF THE UNITED STATES OF
AMERICA



Secretary
(Title)

FOR THE DEPARTMENT OF ENERGY,
MINES AND RESOURCES OF
CANADA



Minister
(Title)