

No. 26987

**UNITED STATES OF AMERICA
and
GABON**

Memorandum of Understanding for a joint program of demonstration of solar photovoltaic power in Gabon (with attachment). Signed at Libreville on 4 February 1982

Authentic texts: English and French.

Registered by the United States of America on 19 December 1989.

**ÉTATS-UNIS D'AMÉRIQUE
et
GABON**

Mémoire d'accord relatif à un programme commun de démonstration sur la conversion photovoltaïque de l'énergie solaire au Gabon (avec pièce jointe). Signé à Libreville le 4 février 1982

Textes authentiques : anglais et français.

Enregistré par les États-Unis d'Amérique le 19 décembre 1989.

MEMORANDUM OF UNDERSTANDING¹ BETWEEN THE MINISTRY OF ENERGY AND HYDRAULIC RESOURCES OF THE REPUBLIC OF GABON AND THE UNITED STATES DEPARTMENT OF ENERGY FOR A JOINT PROGRAM OF DEMONSTRATION OF SOLAR PHOTOVOLTAIC POWER IN GABON

Article 1: Purpose

The Ministry of Energy and Hydraulic Resources (MERH) of the Republic of Gabon, and the United States Department of Energy (DOE), have agreed to conduct a 3-year joint solar energy program to demonstrate the technical, economic, and social value of photovoltaic power systems in assisting development and improving the quality of life in rural areas of Gabon. This joint Program is limited to four selected public service sector applications and to four villages. This Memorandum of Understanding sets out the understanding of the Parties named above with respect to the undertaking of the Program described below.

Article 2: The Program

The program has three complementary activities: (1) the demonstration of the use of photovoltaic power in rural development in Gabon; (2) training to develop Gabonese capability in the technology and application of photovoltaics; and (3) the evaluation of the technical, economic and social aspects of the demonstration. The attachment entitled "The Program" amplifies the above Program definition. Within the limits of the above Program definition, elements of the description contained in the attachment may be changed by mutual written agreement of the Project Coordinators without formal amendment of this Memorandum of Understanding.

Article 3: Financial Arrangements

The cost of the program should not exceed \$1,600,000 (U.S. Dollars) allotted as follows:

- \$1,000,000 for equipment and for services outside of Gabon. These expenditures will be borne equally by Gabon and the United States up to \$500,000 for each of the two Parties. However, if the program should be expanded by mutual agreement of the Parties, it is understood that the U.S. and Gabon will share equally in the increased cost.
- \$600,000 for the drilling of wells, and services within Gabon. This expense will be borne entirely by the Republic of Gabon.

¹ Came into force on 4 February 1982 by signature, in accordance with article 14.

In addition, it is understood that Gabon and the U.S. will each bear the costs associated with their respective civil service personnel assigned to manage and support the Program, including the cost of salaries, benefits, travel and subsistence. No portion of the \$1,000,000 Program resources will be used for travel and subsistence expenses except those associated with training as defined in the attachment.

Funding for the Program will be transferred to the U.S. National Aeronautics and Space Administration by MERH as soon as practicable after this agreement has been signed. The terms and conditions for the transfer of funds from MERH to NASA and the establishment of a Deposit Account shall be outlined in a separate agreement between the Parties or their designees. It is understood that the ability of the Parties to carry out their obligations under this agreement is subject to the availability of appropriated funds.

Article 4: Program Responsibilities

I. Responsibilities of DOE

DOE, under an existing interagency agreement with NASA, will delegate responsibility to the Lewis Research Center (LeRC) to use its best efforts to accomplish the following activities:

- a) Conduct site visits to each of the villages to define the photovoltaic power system requirements.
- b) Implement Phase I, System definition, including conceptual design, cost analysis and preparation of specifications, requests for proposals and bidding documents.
- c) Implement Phase II of the village energy demonstration including award and implementation of a contract for the design fabrication, checkout, installation and monitoring of the solar photovoltaic power systems.
- d) Provide information for selected Gabonese personnel who are at the policy level with an emphasis on what photovoltaics can contribute to Gabon's rural development and future energy needs and its present and projected cost; and training at the technical level with an emphasis on the technology, its cost, application and system features.
- e) Support MERH in the evaluation of technical and economic aspects of the Program as mutually agreed.

II. Responsibilities of MERH

MERH, for its part, will use its best efforts to carry out the following responsibilities:

- a) Support DOE, as mutually agreed, in the implementation of the village energy demonstration Phases I and II including site visits.
- b) Select appropriate personnel in Gabon at both the policy level and technical level for training in photovoltaic renewable energy.

- c) Conduct an evaluation of the technical, economic, and social aspects of the role of photovoltaic renewable energy technology in supporting rural development in Gabon.

III. Joint Responsibilities

Detailed description, plans, schedule, and resource requirements for the Program shall be outlined in an Implementation Plan to be jointly developed by the Project Leaders.

Article 5: Liability

DOE and the MERH agree that, with respect to injury or damage to persons or property involved in operations undertaken pursuant to this agreement, neither DOE, nor the MERH shall make any claim with respect to injury or death of its own or its contractor's or its subcontractor's employees or damage to its own or its contractor's or its subcontractor's property caused by activities arising out of or connected with this project, whether such injury, death or damage arises through negligence or otherwise.

Compensation for damages incurred by other persons or property during the implementation of this agreement shall be in accordance with the applicable laws of the countries of the Parties.

Article 6: Management

(a) DOE and MERH shall each designate a Project Coordinator to act on its behalf in all matters concerning cooperation under this Memorandum of Understanding. All decisions shall be by unanimity.

(b) Overall responsibility for annual review, approval and oversight of the Program's technical content and budget will rest jointly with the Project Coordinators.

(c) Each Party shall appoint a Project Leader for the detailed Management of this Project. The Project leaders shall be responsible to their respective Project Coordinator for the working contacts between Parties. In accordance with the DOE/NASA MOU dated June 23, 1975, as amended March 21, 1978,^[1] NASA has designated the NASA LeRC as Project Leader for the U.S.

(d) The Project will be managed and implemented on a day-to-day basis by the Project Leaders. The Project Leaders will undertake the tasks as set forth in the Implementation Plan. The Project Leaders may request DOE's assistance in identifying administrative and technical support as necessary to assure timely execution of the Project in accordance with unanimous approval of the Project Coordinators.

(e) The Project Leaders will provide reports to their respective Project Coordinators in accordance with the accepted procedures in that country, which will note the status of the Project with respect to schedules, milestones, and budgets.

Article 7: Reporting

Semi-annual reports shall be prepared jointly by the Project Leaders continuing for a period of three years. For two more years the MERH shall provide annual reports to the U.S. project coordinator covering the work done, system performance, results achieved, funds expended and milestones completed.

Article 8: Disputes

Any dispute in the interpretation or implementation of the terms of this Memorandum of Understanding shall be referred to the signatories of this Memorandum of Understanding.

Article 9: Exchange of Staff

Whenever an exchange of staff is contemplated under this Agreement, each Party shall ensure that qualified staff are selected for attachment to the other Party. Each party shall be responsible for the salaries, insurance and allowances to be paid to its staff. Each Party shall pay for the travel and living expenses of its staff while on attachment to the host Party unless otherwise agreed. Each Party shall provide all necessary assistance to the attached staff of the other Party as regards administrative formalities (travel arrangements, hotel reservations, etc.). The staff of each Party shall conform to the general and special rules of work and safety regulations in force at the host establishment.

Article 10: Scientific Equipment

All Parties agree that in the event scientific equipment (e.g., meteorological instruments and insolinometers) is to be exchanged or supplied by one Party to another, the following provisions shall apply covering the shipment and use of agreed equipment:

1. The sending Party shall supply as soon as possible a detailed list of the equipment to be provided together with the relevant specifications and technical and other documentation.
2. The equipment and necessary spare parts supplied by the sending party for use in joint projects shall remain its property and shall be returned to the sending Party upon completion of the mutually agreed upon activity unless otherwise agreed. The host establishment shall provide the necessary premises for the equipment in accordance with technical requirements which shall be as mutually agreed.
3. The equipment provided by the sending Party for carrying out mutually agreed upon activities shall be considered to be scientific, not having a commercial character.
4. The receiving Party shall be responsible for safekeeping and insurance en route from authorized port of entry to the ultimate destination and return.